FINAL ENGINEERING PLANS FOR

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

ST. CHARLES, ILLINOIS

WBK PROJECT NO. 18-0305

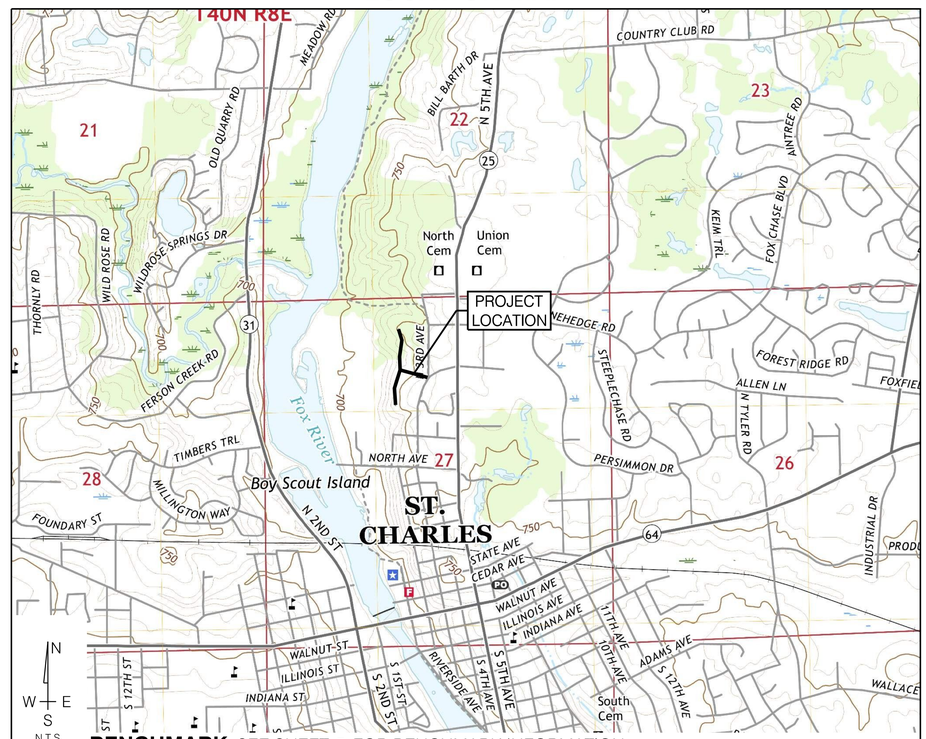
PLAN LEGEND

EXISTING	LINETYPES	PROPOSED
	DRAIN TILE	
	STORM SEWER	
	SANITARY SEWER	
W	WATER MAIN (W/ SIZE)	W
	PIPE TRENCH BACKFILL	
G	GAS MAIN	G
T T	TELEPHONE LINES	T T
E E	ELECTRIC LINE	E E
	FENCE	
	RIGHT-OF-WAY	
	EASEMENT	
	PROPERTY LINE	
	SETBACK LINE	
	CENTERLINE	
680	CONTOUR	680
	GUARDRAIL	
	SANITARY MANHOLE	
	STORM MANHOLE	
	CATCH BASIN	
	INLET	
	SUMP STRUCTURE	
	FIRE HYDRANT	
	PRESSURE CONNECTION	
	VALVE & VAULT, VALVE	
	FLARED END SECTION	
	STREET LIGHT	
	UTILITY POLE	
	CONTROL POINT	
	SIGN	
XXX.XX	SPOT ELEVATION	XXX.XX
	OVERLAND FLOW ROUTE	
	DRAINAGE SLOPE	
	TREE, EVERGREEN, SHRUB & PROPOSED TREE TO REMOVE	

PERMITS

AGENCY	DATE	PERMIT #

LOCATION MAP



BENCHMARK SEE SHEET 5 FOR BENCHMARK INFORMATION

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REVISIONS

ORIGINAL PLAN DATE: 02/07/2020

#	SHT NO.	DESCRIPTION	DATE
1	ALL	PER CITY OF ST. CHARLES COMMENTS	2/21/20
2	ALL	PER CITY OF ST. CHARLES COMMENTS	3/2/20

CLIENT

CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

CIVIL ENGINEER

3/4/2020

ENGINEER DATE

VINCENT R. DIPRIMA, P.E.

ILLINOIS REGISTRATION NO.: 062-064196
EXPIRATION DATE: 11/30/2021

THESE PLANS OR ANY PART THEREOF SHALL BE CONSIDERED VOID WITHOUT THE SIGNATURE , SEAL AND EXPIRATION DATE OF SEAL OF THE ENGINEER

VINCENT R. DIPRIMA
062-064196
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM

CALL J.U.L.I.E. 1-800-892-0123
48 HOURS BEFORE YOU DIG

NW ¼ SECTION 27, TOWNSHIP 40N, RANGE 8E
CITY OF ST. CHARLES, KANE COUNTY

WBK engineering

WBK ENGINEERING, LLC
116 WEST MAIN STREET, SUITE 201, ST. CHARLES, ILLINOIS 60174
P: 630.443.7755 F: 630.443.0533 WWW.WBKENGINEERING.COM

PROFESSIONAL DESIGN FIRM NO. 184.007317
EXPIRATION DATE: 04/30/2021

GENERAL NOTES

SPECIFICATIONS. STANDARDS AND SPECIAL PROVISIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED APRIL 1, 2016 (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS); THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2020; THE LATEST EDITIONS OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS"; THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS"; THE CITY OF ST. CHARLES SPECIFICATIONS; THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.

2. ALL REFERENCES TO "ENGINEER" SHALL BE INTERPRETED TO MEAN THE RESIDENT ENGINEER.

3. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE ENGINEER'S LINE AND GRADE STAKES, IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO THE ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY, IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES, FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.

4. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION) AT 1-800-892-0123 FOR FIELD LOCATION OF BURIED UTILITIES (48 HOURS NOTIFICATION IS REQUIRED).

5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE OR CITY PROPERTY WITHOUT WRITTEN PERMISSION FROM THE CITY.

6. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS, AND REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT, OR A PROFESSIONAL LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

7. OFFSET LOCATIONS GIVEN IN THE PLANS FOR STRUCTURES, EDGE OF PAVEMENT, ETC. ARE FROM THE ROADWAY CENTERLINE.

8. AGGREGATE SUBGRADE IMPROVEMENT FOR DRIVEWAYS, SIDEWALKS, RIBBON CURB, AND COMBINATION CURB & GUTTER TO BE CA-6.

9. THE CONTRACTOR SHALL NOT DELIVER AND STORE ANY MATERIAL ON THE PROJECT SITE MORE THAN ONE WEEK IN ADVANCE OF COMMENCING WORK. ALL STORAGE LOCATIONS MUST BE APPROVED IN ADVANCE BY THE ENGINEER. NO PORTION OF THE ROADWAY MAY BE USED FOR ANY MATERIAL STORAGE. THE COST FOR ANY PAVEMENT AND/OR PARKWAY REPAIR REQUIRED DUE TO DAMAGE CAUSED BY MATERIALS STORAGE SHALL BE BORNE BY THE CONTRACTOR.

10. THE CONTRACTOR SHALL NOTIFY THE CITY OF ST CHARLES ENGINEER 48 HOURS PRIOR TO COMMENCEMENT OF ALL ITEMS OF WORK.

11. ALL ENGINES AND ENGINE DRIVEN EQUIPMENT USED FOR HAULING OR CONSTRUCTION SHALL BE EQUIPPED WITH AN ADEQUATE MUFFLER IN CONSTANT OPERATION AND PROPERLY MAINTAINED TO PREVENT EXCESSIVE UNUSUAL NOISES, ANY MACHINE OR DEVICE OR PART THEREOF WHICH IS REGULATED BY OR BECOMES REGULATED BY FEDERAL OR STATE OF ILLINOIS NOISE STANDARDS SHALL CONFORM TO THOSE STANDARDS.

12. CONSTRUCTION OPERATIONS, INCLUDING THE STARTUP OF HEAVY EQUIPMENT, SHALL NOT BEGIN BEFORE 7:00 AM MONDAY THROUGH SATURDAY, CONSTRUCTION OPERATIONS INCLUDING SITE CLEANUP, SHALL BE COMPLETED BEFORE 7:00 PM MONDAY THROUGH FRIDAY AND 5:00PM ON SATURDAY, NO WORK OF ANY KIND SHALL BE DONE ON SUNDAYS OR HOLIDAYS OBSERVED IN ILLINOIS, THESE TIME RESTRICTIONS SHALL NOT APPLY TO MAINTENANCE OR OPERATION OF SAFETY AND TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, SIGNS AND/OR LIGHTING, OR TO CONSTRUCTION OF AN EMERGENCY NATURE. IF THE CONTRACTOR REQUIRES ADDITIONAL TIME TO COMPLETE A PORTION OF THE WORK ON ANY GIVEN DAY OR IF HE FORESEES THE NEED TO WORK EXTENDED HOURS FOR A NUMBER OF DAYS TO COMPLY WITH THE CONSTRUCTION SCHEDULE, THEN HE MUST RECEIVE APPROVAL OF THE ENGINEER.

13. THE CONTRACTOR SHALL SCHEDULE AND CONDUCT HIS OPERATIONS SO THAT THE CLOSURE TIME OF EXISTING DRIVEWAYS ALONG THE ROUTE OF IMPROVEMENTS IS KEPT TO A MINIMUM. ALL HOMEOWNERS SHALL BE GIVEN A MINIMUM 48-HOUR NOTICE PRIOR TO INITIAL REMOVAL OF THEIR DRIVEWAY APRON. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO KEEP DRIVEWAYS OPEN INCLUDING TEMPORARY GRADING AND PLACEMENT OF AGGREGATE THE COST OF WHICH SHALL BE INCLUDED IN THE DRIVEWAY PAY ITEMS.

14. BEGINNING ON THE DATE THAT THE CONTRACTOR COMMENCES WORK ON THE PROJECT, HE/SHE SHALL ASSUME RESPONSIBILITY FOR NORMAL MAINTENANCE OF ALL EXISTING ROADWAYS WITHIN THE LIMITS OF THE IMPROVEMENTS. NORMAL MAINTENANCE SHALL INCLUDE ALL REPAIR WORK DEEMED NECESSARY BY THE ENGINEER. THE WORK INVOLVED IN MAINTAINING THE EXISTING PAVEMENT SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

15. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL REMOVE FROM THE JOBSITE ANY RUBBISH AND WASTE MATERIAL BY THE END OF EACH WORKING DAY. THE CONTRACTOR SHALL KEEP THE PREMISES CLEAN DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER, INCLUDING UTILIZATION OF A STREET SWEEPER OR HAND CLEANING AS NECESSARY.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR POSTING SUIT ABLE ADVANCE NOTICE ON STREETS SCHEDULED TO BE RESURFACED AT LEAST 24 HOURS, BUT NOT MORE THAN 48 HOURS, PRIOR TO COMMENCEMENT OF WORK. "NO PARKING" SIGNS DISPLAYING CONSTRUCTION TIMES SHALL BE PLACED ON ROADWAYS 48 HOURS PRIOR TO PAVEMENT REMOVAL, TACK COAT, FABRIC, AND HMA PLACEMENT. ALL SUCH NOTICES SHALL BE REMOVED BY THE CONTRACTOR IMMEDIATELY UPON THE COMPLETION OF WORK IN EACH BLOCK.

17. CONTRACTOR SHALL PROVIDE THE ENGINEER NOTIFICATION TEN (10) WORKING DAYS PRIOR TO THE REMOVAL OF ANY TREE OR SHRUB.

STORM SEWERS. WATER MAINS. AND UTILITIES

1. THE CONTRACTOR SHALL CALL IN REQUESTS FOR LOCATES OF CITY UTILITIES (630-377-4405) NO MORE THAN SEVEN DAYS IN ADVANCE OF WORK, PUBLIC WORKS FORCES WILL LOCATE CITY OWNED UTILITIES AT THE REQUEST OF THE CONTRACTOR ONE TIME PER PROJECT FOR EACH INDIVIDUAL SYSTEM. EACH REQUEST MAY INVOLVE MULTIPLE LOCATIONS WHERE SEPARATED UTILITY SYSTEMS ARE INVOLVED. THE CONTRACTOR WILL BE REQUIRED TO REIMBURSE THE CITY OF ST CHARLES FOR TIME AND MATERIAL COSTS ASSOCIATED WITH ADDITIONAL LOCATE REQUESTS.

2. THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHILE WORKING AROUND EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY JULIE (1-800-892-0123) A MINIMUM OF 48 HOURS BEFORE COMMENCING CONSTRUCTION FOR UTILITY LOCATIONS WITHIN THE SCOPE OF THE PROJECT. IT IS RECOMMENDED THAT THE CONTRACTOR CONDUCT A JOINT UTILITY MEET PRIOR TO COMMENCING WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT AGENCIES WHO MAY OR MAY NOT BE PART OF THE JULIE SYSTEM IN ORDER TO OBTAIN THE HORIZONTAL AND VERTICAL FIELD LOCATIONS OF THEIR FACILITIES WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENTS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURF ACE UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER OR REPLACED. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

4. ALL UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 3 DAYS PRIOR TO THE START OF CONSTRUCTION.

5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND EXISTING SEWER SERVICE CONNECTIONS PRIOR TO COMMENCING WORK AND TO COORDINATE ANY CHANGES TO THE PROPOSED UTILITY LAYOUT AND/OR ELEVATIONS WITH THE ENGINEER.

6. THE CONTRACTOR SHALL USE ALL NECESSARY PRECAUTIONS AND PROTECTION MEASURES REQUIRED TO MAINTAIN EXISTING UTILITIES, SEWERS, AND APPURTENANCES THAT MUST BE KEPT IN OPERATION.

7. THE CONTRACTOR SHALL ENSURE THAT ALL WATER SYSTEM VALVES, VALVE VAULTS, AND SANITARY SEWER MANHOLES REMAIN READILY ACCESSIBLE TO THE CITY FOR EMERGENCY OPERATIONS. THE LOCATIONS OF ALL WATER AND SANITARY FACILITIES SHALL BE MARKED AND BE READILY VISIBLE AT ALL TIMES.

8. WHENEVER ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES OR GUTTERS SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF CURB REMOVAL AND REPLACEMENT.

9. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY COMPANIES INVOLVED WITH THE REMOVAL, TEMPORARY RELOCATION, SUPPORT, PROTECTION, RECONSTRUCTION, OR ABANDONMENT BY THESE COMPANIES OF ANY AND ALL SERVICES OR FACILITIES OWNED OR OPERATED BY THEM WITHIN THE PROJECT LIMITS.

10. WHEN NEW FRAMES ARE CALLED FOR ON THE PLANS, THE EXISTING FRAMES, LIDS AND GRATES SHALL REMAIN THE PROPERTY OF THE CITY OF ST. CHARLES. THE CONTRACTOR SHALL DELIVER THE EXISTING FRAMES, LIDS AND GRATES TO THE PUBLIC WORKS FACILITY AT, 200 DEVEREAUX WAY, OR AS DIRECTED BY THE ENGINEER.

11. ALL NEWLY INSTALLED SEWER LINES WILL BE TELEVISED BY THE CITY AND MUST BE APPROVED BY THE PUBLIC WORKS ENGINEERING DIVISION BEFORE PAVEMENT PLACEMENT. ANY DEFECTS, POOR WORKMANSHIP, ETC. FOUND DURING TELEVISING SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. ANY SPOILS, STONE OR CONSTRUCTION MATERIAL FOUND IN THE PIPES SHALL BE JETTED AND CLEANED PRIOR TO CITY APPROVAL.

12. STRUCTURE DEPTHS SHOWN ON PLANS ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY FINAL ELEVATIONS AND LOCATIONS PRIOR TO ODERING STRUCTURES.

SIGNING AND STRIPING

1. THE CONTRACTOR WILL BE REQUIRED TO TEMPORARILY RESET ALL SUCH SIGNS THAT INTERFERE WITH CONSTRUCTION OPERATIONS. ALL SUCH SIGNS MUST BE MAINTAINED STRAIGHT AND CLEAN FOR THE DURATION OF THE TEMPORARY SETTING AND MUST BE RE-ERECTED AT A TEMPORARY LOCATION IN A WORKMANLIKE MANNER AND BE VISIBLE TO THE TRAFFIC FOR WHICH IT IS INTENDED. THIS WORK WILL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.

TRAFFIC CONTROL

1. THE CONTRACTOR SHALL AT ALL TIMES PROVIDE PROTECTION FOR TRAFFIC AS CALLED FOR IN THE SPECIAL PROVISIONS & PLANS.

2. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 107 .14 OF THE STANDARD SPECIFICATIONS.

3. TRAFFIC CONTROL MAINTENANCE AND SURVEILLANCE SHALL BE PERFORMED BY THE CONTRACTOR AS NEEDED AND SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED TRAFFIC CONTROL PAY ITEMS.

4. ANY ROAD CLOSURES AND/OR DETOURS NEEDED FOR CONSTRUCTION SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED PAY ITEMS

EROSION CONTROL

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE KANE COUNTY AND THE CITY OF ST. CHARLES STORMWATER ORDINANCES. ALL CONSTRUCTION ACTIVITIES WILL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMIT ILR10 AND THE SWPPP DOCUMENT. THE CONTRACTOR SHALL ALSO FOLLOW THE STANDARDS AND SPECIFICATIONS IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

2. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE THE PROJECT SITE IS OTHERWISE DISTURBED.

3. CLEANING OF VEHICLES AND EQUIPMENT, INCLUDING CONCRETE MIXERS, SHALL BE PERFORMED IN A MANNER TO REDUCE THE AMOUNT OF POLLUTANTS TRIBUTARY TO STORM SEWERS AND OPEN WATERS TO THE MAXIMUM EXTENT PRACTICAL.

4. DAMAGED OR INEFFECTIVE EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED WITHIN 72 HOURS, EROSION CONTROL SYSTEMS REPLACED DUE TO SEDIMENT LOADING WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CONTRACT. SEE CONTRACT SPECIAL PROVISIONS.

5. ALL EROSION CONTROL MEASURES SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SEDIMENT AND EROSION CONTROL MEASURES ARE OPERATIONAL.

6. THE CONTRACTOR SHALL USE CONCRETE WASHOUTBOXES.

ABBREVIATIONS & ACRONYMS

STA	STATION
O/S	OFFSET
PR	PROPOSED
EX	EXISTING
TYP	TYPICAL
TCE	TEMPORARY CONSTRUCTION EASEMENT
ROW	RIGHT OF WAY
TBR	TO BE REMOVED
TBA	TO BE ABANDONED
B-BOX	BUFFALO BOX
HDD	HORIZONTAL DIRECTIONAL DRILLING
PVC	POLYVINYL CHLORIDE (PIPE)
DIP	DUCTILE IRON PIPE
HDPE	HIGH DENSITY POLYETHYLENE (PIPE)
HMA	HOT MIX ASPHALT
EOP	EDGE OF PAVEMENT
COMB.	COMBINATION
FH	FIRE HYDRANT
FG	FINAL GRADE

PLOT DATE = 3/5/2020
USER NAME = msudkamp
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_gn.dgn

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

GENERAL NOTES

DSGN.	MDS	DWN.	MDS
CHKD.	VDP	SCALE : NOT TO SCALE	

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
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6		
7		
8		

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **GN1**
SHEET

CODE	DESCRIPTION	UNIT	QUANT
1	MOBILIZATION	L SUM	1
2	CONSTRUCTION LAYOUT AND AS-BUILT SURVEY	L SUM	1
3	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
4	TEMPORARY AGGREGATE WIDENING	TONS	203
5	*REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	108
6	PERIMETER EROSION BARRIER	FOOT	894
7	INLET FILTERS	EACH	26
8	TEMPORARY FENCING	FOOT	1045
9	*TREE ROOT PRUNING	EACH	~~47~~ 54
10	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	~~35~~ 47
11	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	~~36~~ 56
12	EARTH EXCAVATION	CU YD	201
13	STORM SEWERS, PRESSURE RATED PIPE, 6"	FOOT	15
14	STORM SEWERS, PRESSURE RATED PIPE, 10"	FOOT	469
15	STORM SEWERS, PRESSURE RATED PIPE, 12"	FOOT	262
16	STORM SEWERS, PRESSURE RATED PIPE, 18"	FOOT	7
17	INLETS, TYPE-A, TYPE 4 FRAME & GRATE	EACH	2
18	INLETS, TYPE-A, TYPE 8 FRAME & GRATE	EACH	2
19	MANHOLES, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3
20	MANHOLES, 4'-DIAMETER, SPECIAL FRAME & GRATE	EACH	2
21	MANHOLES, 4'-DIAMETER, TYPE 4 FRAME & GRATE	EACH	5
22	MANHOLES, 4'-DIAMETER, TYPE 8 FRAME & GRATE	EACH	1
23	MANHOLES, 6'-DIAMETER, TYPE 4 FRAME, CLOSED LID	EACH	1
24	METAL FLARED END SECTION, 12"	EACH	2
25	METAL FLARED END SECTION, 18"	EACH	1
26	SANITARY SEWERS, PIPE BURSTING (TRENCHLESS), 8"	FOOT	2174
27	SANITARY SEWER (OPEN CUT), HDPE, 8"	FOOT	60
28	SANITARY SEWER (OPEN CUT), PVC SDR 26, 8"	FOOT	40
29	SANITARY MANHOLES, TYPE-A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	13
30	SANITARY BYPASS	L SUM	1
31	SANITARY SEWER SERVICE REMOVAL	FOOT	310
32	SANITARY SEWER SERVICE LINE, 6" PVC SDR-26	FOOT	240
33	SANITARY SEWER SERVICE CLEAN OUT	EACH	13
34	DUCTILE IRON WATER MAIN OPEN CUT, 10 INCH	FOOT	5
35	HDPE WATER MAIN OPEN CUT, 6 INCH	FOOT	27
36	HDPE WATER MAIN OPEN CUT, 8 INCH	FOOT	62
37	HDPE WATER MAIN OPEN CUT, 10 INCH	FOOT	62
38	HDPE WATER MAIN DIRECTIONAL DRILL, 8 INCH	FOOT	537
39	HDPE WATER MAIN DIRECTIONAL DRILL, 10 INCH	FOOT	925
40	HDPE WATER MAIN REDUCER, 10" X 8"	EACH	1
41	HDPE WATER MAIN TEE, 10" X 10"	EACH	1
42	HDPE WATER MAIN TEE, 10" X 6"	EACH	3
43	HDPE WATER MAIN TEE, 8" X 6"	EACH	2
44	HDPE WATER MAIN BEND, 10" 11.25 DEGREE BEND	EACH	1
45	HDPE WATER MAIN MECH. PLUG, 8"	EACH	1
46	HDPE WATER MAIN MECH. PLUG, 10"	EACH	1
47	HDPE WATER MAIN FLEX RESTRAINT, 10"	EACH	1
48	WATER VALVES, 8 INCH	EACH	1
49	WATER VALVES, 10 INCH	EACH	4
50	VALVE VAULTS, TYPE-A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	5
51	CONNECTION TO EXISTING WATER MAIN	EACH	1
52	WATER SERVICE LINE 1.00 INCH	FOOT	539

* DENOTES CONTINGENCY PAY ITEM

CODE	DESCRIPTION	UNIT	QUANT
53	CURB STOPS 1.00 INCH	EACH	19
54	CORPORATION STOPS 1.00 INCH	EACH	19
55	DOMESTIC WATER SERVICE BOXES	EACH	19
56	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	5
57	STEEL CASING, 16 INCH	FOOT	47
58	TRENCH BACKFILL	CU YD	630
59	DRAINAGE AND UTILITY STRUCTURES TO BE ADJUSTED	EACH	3
60	NEW FRAME AND GRATE	EACH	3
61	STORM SEWER REMOVAL	FOOT	561
62	SANITARY SEWER REMOVAL	FOOT	40
63	ABANDON & FILL EXISTING STORM SEWER	FOOT	346
64	ABANDONING & FILLING EXISTING SANITARY MANHOLES	EACH	1
65	REMOVING INLETS	EACH	7
66	REMOVING MANHOLES	EACH	18
67	REMOVING VALVES & VALVE VAULTS	EACH	2
68	REMOVING VALVES & VALVE BOXES	EACH	1
69	REMOVE EXISTING TEE	EACH	1
70	DOMESTIC WATER SERVICE BOXES TO BE REMOVED	EACH	18
71	FIRE HYDRANTS TO BE REMOVED	EACH	3
72	DRIVEWAY PAVEMENT REMOVAL	SQ YD	657
73	PAVEMENT REMOVAL	SQ YD	3429
74	HOT-MIX ASPHALT SURFACE COURSE REMOVAL, 2.5 INCH	SQ YD	202
75	HOT-MIX ASPHALT REMOVAL - BUTT JOINT	SQ YD	78
76	REMOVE & REINSTALL BRICK PAVER DRIVEWAY	SQ FT	~~675~~ 800
77	AGGREGATE DRIVEWAY, 6 INCH	SQ YD	81
78	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3 INCH	SQ YD	595
79	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	28
80	CONCRETE RIBBON CURB	FOOT	2963
81	COMBINATION CURB AND GUTTER REMOVAL	FOOT	84
82	CONCRETE COMBINATION CURB AND GUTTER, SPECIAL	FOOT	57
83	*AGGREGATE SUBGRADE IMPROVEMENT	CU YD	108
84	*GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	321
85	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	4506
86	HOT-MIX ASPHALT LEVELING BINDER (MACHINE METHOD), N50	TON	13
87	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	741
88	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	403
89	BITUMINOUS MATERIALS (PRIME COAT)	GAL	7224
90	BITUMINOUS MATERIALS (TACK COAT)	GAL	911
91	*DRIVEWAY SANDING	TON	10
92	CLASS D PATCH, 6"	SQ YD	58
93	STONE RIPRAP CLASS A3, 15 INCH	SY YD	58
94	RELOCATE EXISTING MAILBOX	EACH	10
95	*DUST CONTROL WATERING	UNIT	10
96	PARKWAY RESTORATION	SQ YD	5104
97	CONCRETE WASHOUT BASIN	L SUM	1
98	*MISCELLANEOUS ADDS TO THE PROJECT AT CITY'S DISCRETION	DOLLAR	25000
99	TENSAR TX160 GEOGRID (ALTERNATE 1)	SQ YD	3210

N 2ND AVE & DELNOR AVE
UTILITY IMPROVEMENTS

SUMMARY OF QUANTITIES

DSGN. MDS
DWN. MDS
CHKD. VDP
SCALE : NOT TO SCALE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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8		

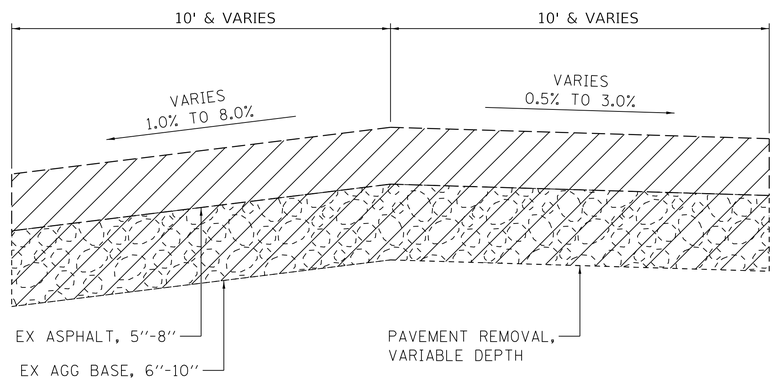
CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

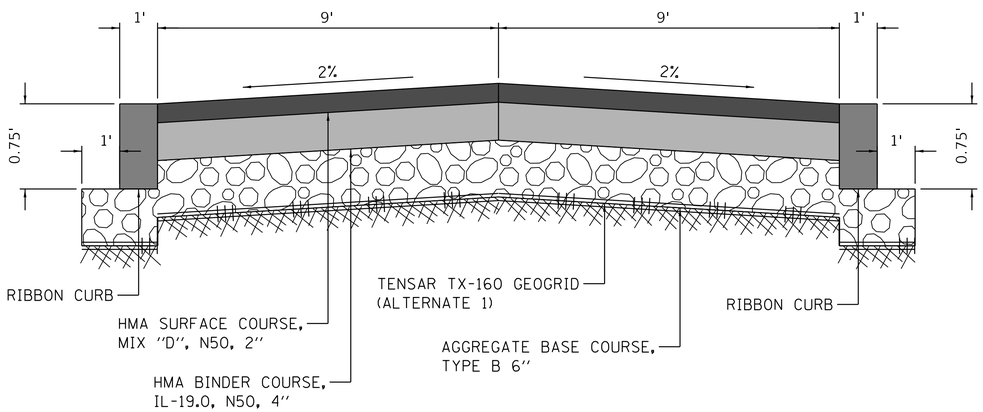
PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. SOQ1
SHEET

PLOT DATE = 3/5/2020
USER NAME = mwdesign
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_soq.dgn

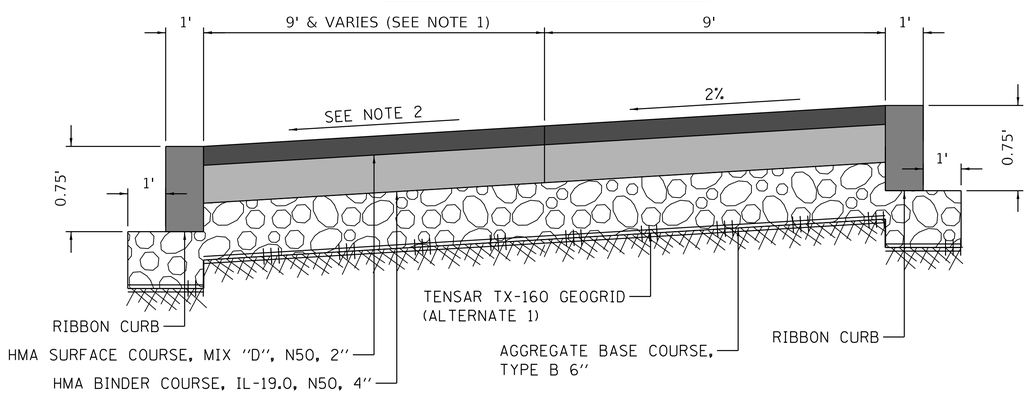
EX TYPICAL SECTION
2nd AVE



PR TYPICAL SECTION
2nd AVE
101+50 TO 106+00



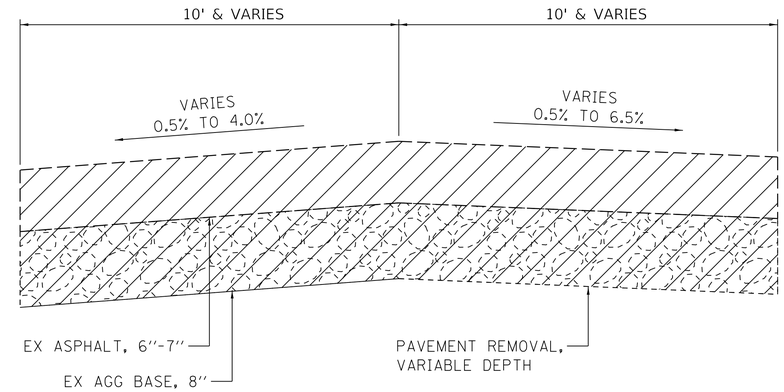
PR TYPICAL SECTION
2nd AVE
100+25 TO 101+50 & 106+00 TO 111+25



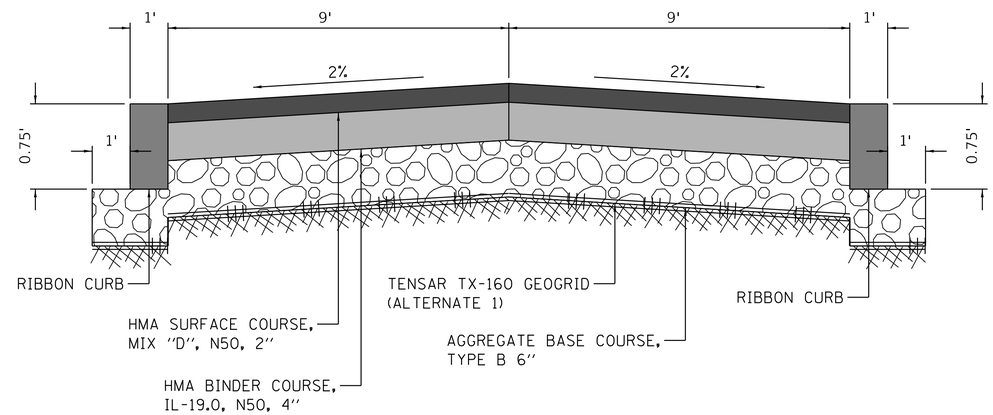
NOTE 1: VARIES 2.00' STA 100+25 TO 9.00' STA 100+75

NOTE 2: 2% 100+25 TO 101+50
2% 106+00 TO 107+50
4% 107+50 TO 111+25

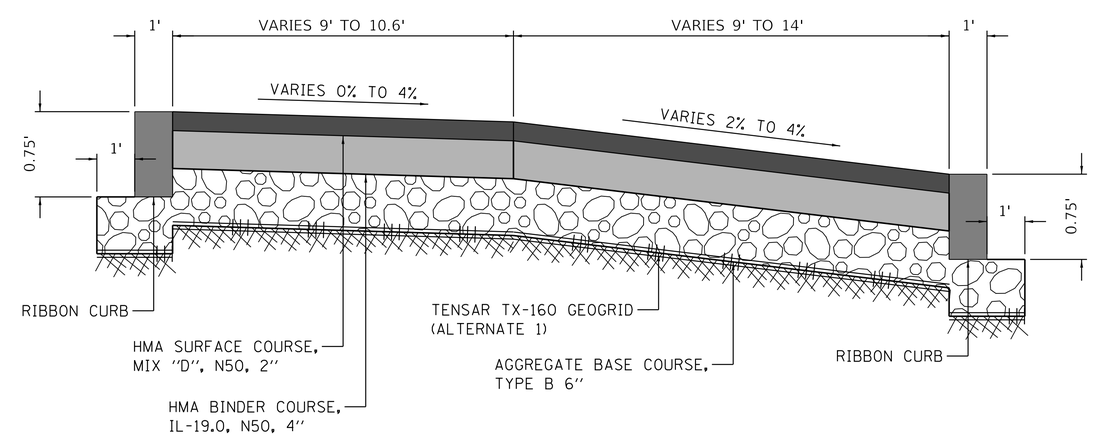
EX TYPICAL SECTION
DELNOR AVE



PR TYPICAL SECTION
DELNOR AVE
200+00 TO 203+13



PR TYPICAL SECTION
DELNOR AVE
203+13 TO 204+37



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : NOT TO SCALE

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

TYPICAL SECTIONS

CLIENT : **CITY OF ST. CHARLES**
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK ENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **TS1**
SHEET
4 OF 52

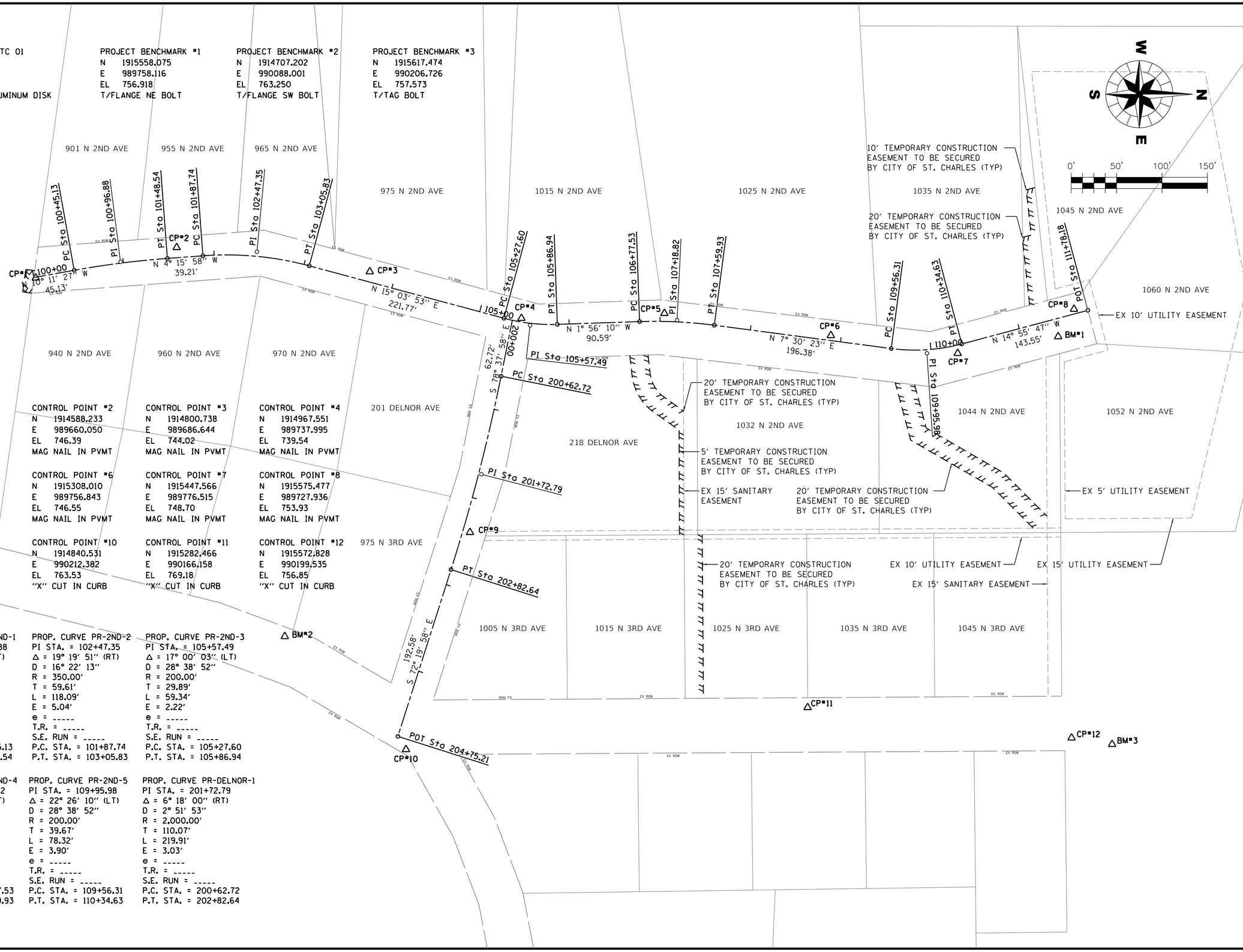
PLOT DATE = 3/3/2020
USER NAME = mwebster
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_ts.dgn

CITY BENCHMARK STC 01
N 1913994.447
E 989644.927
EL 732.72
T/CENTER 2.5" ALUMINUM DISK

PROJECT BENCHMARK #1
N 1915558.075
E 989758.116
EL 756.918
T/FLANGE NE BOLT

PROJECT BENCHMARK #2
N 1914707.202
E 990088.001
EL 763.250
T/FLANGE SW BOLT

PROJECT BENCHMARK #3
N 1915617.474
E 990206.726
EL 757.573
T/TAG BOLT



CONTROL POINT #1
N 1914433.152
E 989693.535
EL 748.10
MAG NAIL IN PVMT

CONTROL POINT #2
N 1914588.233
E 989660.050
EL 746.39
MAG NAIL IN PVMT

CONTROL POINT #3
N 1914800.738
E 989686.644
EL 744.02
MAG NAIL IN PVMT

CONTROL POINT #4
N 1914967.551
E 989737.995
EL 739.54
MAG NAIL IN PVMT

CONTROL POINT #5
N 1915124.887
E 989732.475
EL 739.22
MAG NAIL IN PVMT

CONTROL POINT #6
N 1915308.010
E 989756.843
EL 746.55
MAG NAIL IN PVMT

CONTROL POINT #7
N 1915447.566
E 989776.515
EL 748.70
MAG NAIL IN PVMT

CONTROL POINT #8
N 1915575.477
E 989727.936
EL 753.93
MAG NAIL IN PVMT

CONTROL POINT #9
N 1914910.930
E 989973.517
EL 750.09
MAG NAIL IN PVMT

CONTROL POINT #10
N 1914840.531
E 990212.382
EL 763.53
"X" CUT IN CURB

CONTROL POINT #11
N 1915282.466
E 990166.158
EL 769.18
"X" CUT IN CURB

CONTROL POINT #12
N 1915572.828
E 990199.535
EL 756.85
"X" CUT IN CURB

PROP. CURVE PR-2ND-1
PI STA. = 100+96.88
Δ = 5° 55' 29" (RT)
D = 5° 43' 46"
R = 1,000.00'
T = 51.75'
L = 103.41'
E = 1.34'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 100+45.13
P.T. STA. = 101+48.54

PROP. CURVE PR-2ND-2
PI STA. = 102+47.35
Δ = 19° 19' 51" (RT)
D = 16° 22' 13"
R = 350.00'
T = 59.61'
L = 118.09'
E = 5.04'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 101+87.74
P.T. STA. = 103+05.83

PROP. CURVE PR-2ND-3
PI STA. = 105+57.49
Δ = 17° 00' 03" (LT)
D = 28° 38' 52"
R = 200.00'
T = 29.89'
L = 59.34'
E = 2.22'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 105+27.60
P.T. STA. = 105+86.94

PROP. CURVE PR-2ND-4
PI STA. = 107+18.82
Δ = 9° 26' 33" (RT)
D = 11° 27' 33"
R = 500.00'
T = 41.29'
L = 82.40'
E = 1.70'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 106+77.53
P.T. STA. = 107+59.93

PROP. CURVE PR-2ND-5
PI STA. = 109+95.98
Δ = 22° 26' 10" (LT)
D = 28° 38' 52"
R = 200.00'
T = 39.67'
L = 78.32'
E = 3.90'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 109+56.31
P.T. STA. = 110+34.63

PROP. CURVE PR-DELNOR-1
PI STA. = 201+72.79
Δ = 6° 18' 00" (RT)
D = 2° 51' 53"
R = 2,000.00'
T = 110.07'
L = 219.91'
E = 3.03'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 200+62.72
P.T. STA. = 202+82.64

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

DSGN. MDS
DWN. MDS
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

ALIGNMENTS, TIES & BENCHMARKS

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **ATB1**
SHEET
5 OF 52

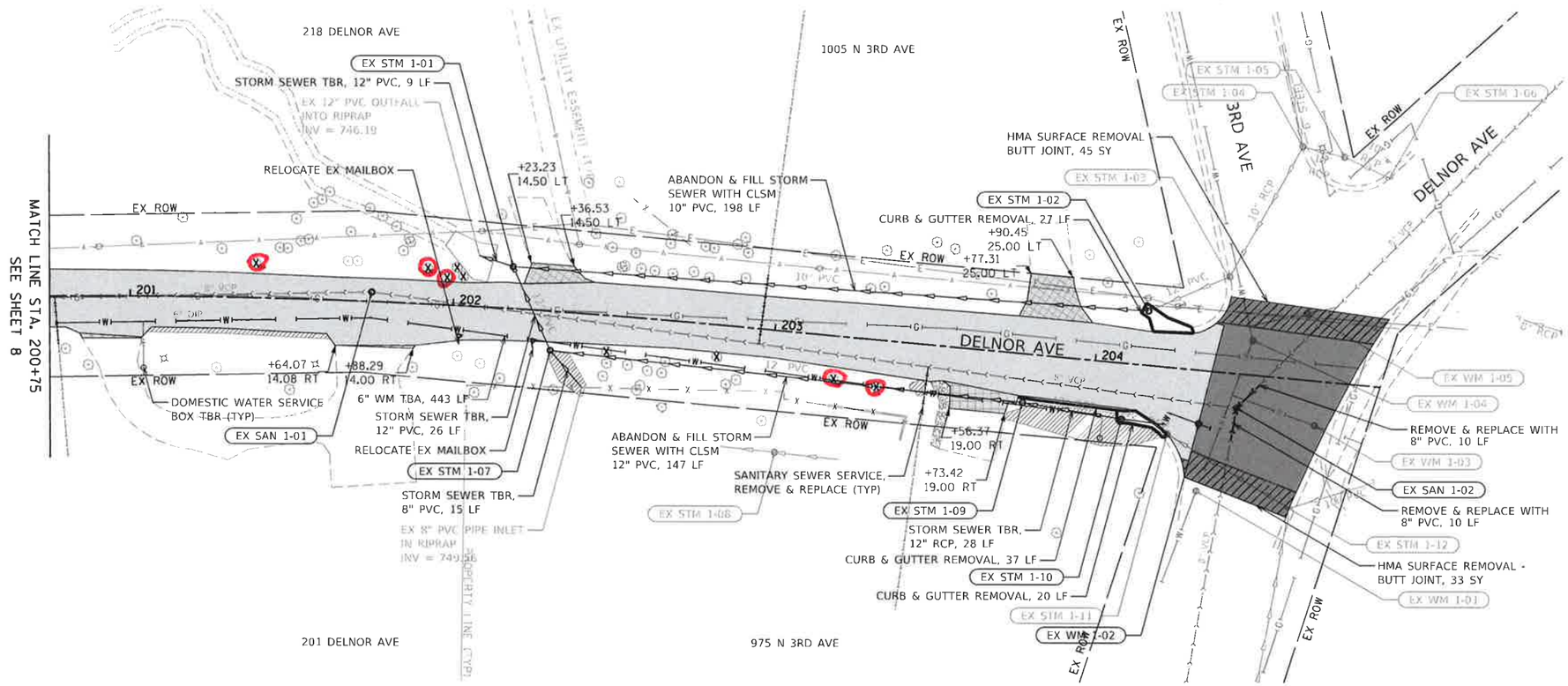
PLOT DATE = 3/5/2020
USER NAME = mgodecke
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_atb.dgn

LEGEND

- FULL-DEPTH PAVEMENT REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 2.5"
- HMA SURFACE REMOVAL - BUTT JOINT
- LANDSCAPED AREAS
- TREE REMOVAL *INDICATES DEAD TREE
- WATER MAIN TO BE ABANDONED (TBA)
- SANITARY SEWER TO BE REMOVED (TBR)
- STORM SEWER TO BE REMOVED (TBR)/ ABANDONED & FILLED (TBA)
- UTILITY STRUCTURE TO BE REMOVED
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT

NOTES

1. TEMPORARY FENCING WITH ORANGE SNOW FENCE TO BE PROVIDED AS SHOWN ON MAINTENANCE OF TRAFFIC PLAN.
2. SPECIALTY ITEMS SUCH AS COBBLESTONE, BRICK PAVERS, MAILBOXES, ETC. SHALL BE CAREFULLY REMOVED AND SHALL BE RE-USED OR REPLACED AS DIRECTED.
3. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.
4. LIMITS OF DRIVEWAY REMOVAL TYPICAL CALLOUT:
   +XX.XX
   XX LT OR RT



EXISTING UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX STM 1-01	INLET	4	749.30		746.45	746.70	746.40	TO BE REMOVED
EX STM 1-02	CATCH BASIN	4	760.41			757.36	757.36	TO BE REMOVED
EX STM 1-03	INLET	2	763.01	758.11			758.11	TO REMAIN
EX STM 1-04	INLET	2	764.63		761.08	762.23		TO REMAIN
EX STM 1-05	INLET	2	765.45			762.72	762.72	TO REMAIN
EX STM 1-06	INLET	2	766.28				763.18	TO REMAIN
EX STM 1-07	CATCH BASIN	2	749.04	746.49	746.59			TO BE REMOVED
EX STM 1-08	MANHOLE	4	752.53			750.98 749.78	749.78	TO REMAIN
EX STM 1-09	INLET	4	756.86			753.22	753.22	TO BE REMOVED
EX STM 1-10	CATCH BASIN	4	759.21			756.08	756.04	TO BE REMOVED
EX STM 1-11	INLET	2	760.00			756.85	756.85	TO REMAIN
EX STM 1-12	INLET	2	761.02	757.32			756.87	TO REMAIN

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX SAN 1-01	MANHOLE	4	748.01					TO BE REMOVED
EX SAN 1-02	MANHOLE	4	761.32	UNABLE TO OPEN				TO BE REMOVED

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	VALVE SIZE (IN)	RIM	TOP OF PIPE	NOTES
WM 1-01	VALVE VAULT	4	6	760.76	756.28	TO REMAIN
WM 1-02	VALVE VAULT	4	6	760.71	755.11	TO BE REMOVED
WM 1-03	VALVE VAULT	4	4	761.66	755.80	TO BE ADJUSTED
WM 1-04	VALVE VAULT	4	12	762.22	UNABLE TO OPEN	TO BE ADJUSTED
WM 1-05	VALVE VAULT	4	6	763.28	UNABLE TO OPEN	TO BE ADJUSTED

TREE REMOVAL SCHEDULE

Tag #	Common Name	DIAMETER
2570	~~Black Walnut~~	~~13~~
2600	~~Hawthorn~~	~~9~~
2604	European Buckthorn	3
2624	European Buckthorn	2
2644	European Buckthorn	5
2648	~~Black Walnut~~	~~9~~
2661	European Buckthorn	3
2671	~~Pin Oak~~	~~5~~
2696	~~Bur Oak~~	~~4~~

Do Not Remove Red circled trees.

NO.	DATE	NATURE OF REVISION	
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS	DSGN. JLB
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS	DWN. JLB
3			CHKD. VDP
4			
5			SCALE : AS SHOWN
6			
7			
8			

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

REMOVAL PLAN DELNOR AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. RM1
SHEET
6 OF 52

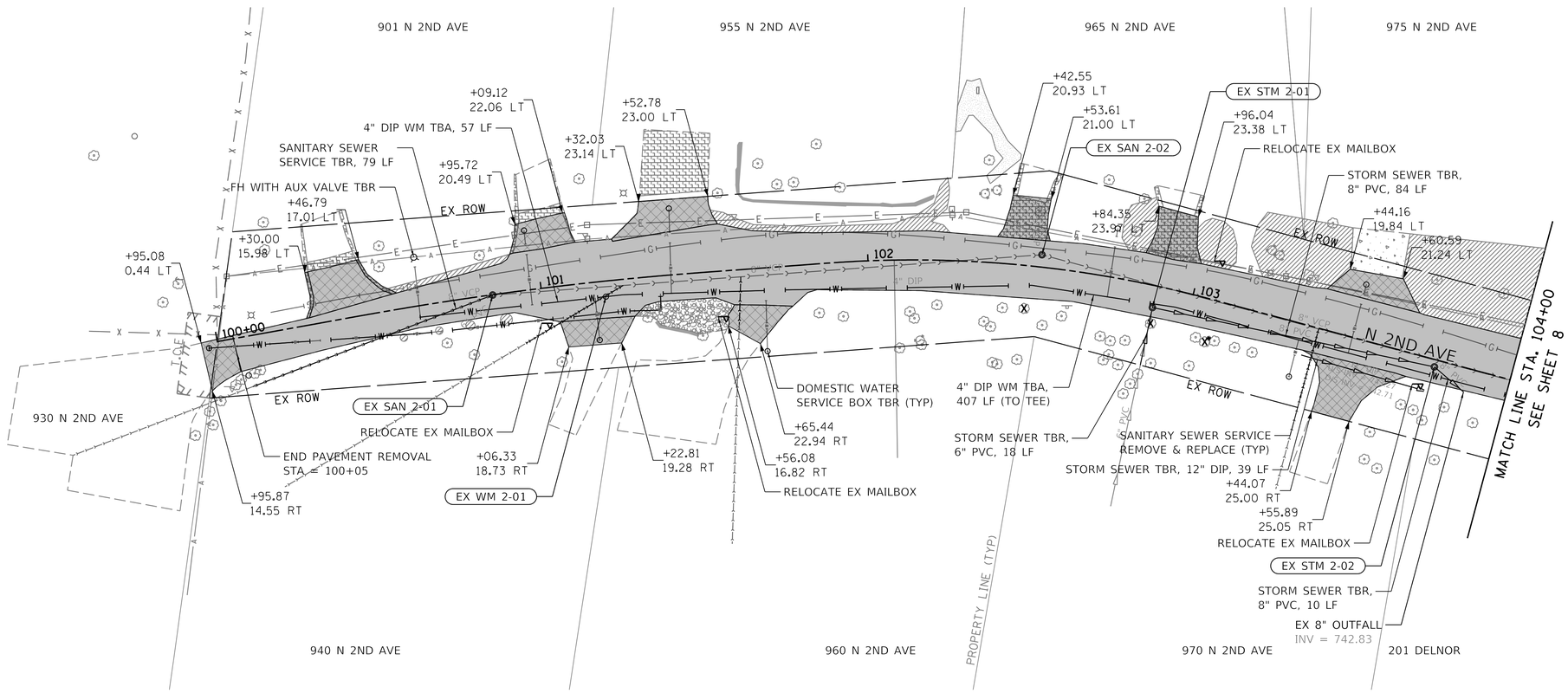
PLOT DATE = 3/5/2020
USER NAME = mudkemp
FILE NAME = W:\Projects\2018\18-0305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_rmldgn

LEGEND

- FULL-DEPTH PAVEMENT REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 2.5"
- HMA SURFACE REMOVAL - BUTT JOINT
- LANDSCAPED AREAS
- TREE REMOVAL *INDICATES DEAD TREE
- WATER MAIN TO BE ABANDONED (TBA)
- SANITARY SEWER TO BE REMOVED (TBR)
- STORM SEWER TO BE REMOVED (TBR)/ ABANDONED & FILLED (TBA)
- UTILITY STRUCTURE TO BE REMOVED
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT

NOTES

1. TEMPORARY FENCING WITH ORANGE SNOW FENCE TO BE PROVIDED AS SHOWN ON MAINTENANCE OF TRAFFIC PLAN.
2. SPECIALTY ITEMS SUCH AS COBBLESTONE, BRICK PAVERS, MAILBOXES, ETC. SHALL BE CAREFULLY REMOVED AND SHALL BE RE-USED OR REPLACED AS DIRECTED.
3. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.
4. LIMITS OF DRIVEWAY REMOVAL TYPICAL CALLOUT:
   +XX.XX
   XX LT OR RT



EXISTING UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX STM 2-01	INLET	4	744.75	742.84		743.55		TO BE REMOVED
EX STM 2-02	INLET	4	744.73	742.78	742.78			TO BE REMOVED

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX SAN 2-01	MANHOLE	4	748.66	739.61	739.76	740.31		TO BE REMOVED
EX SAN 2-02	MANHOLE	4	744.40	736.70	736.70			TO BE REMOVED

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	VALVE SIZE (IN)	RIM	TOP OF PIPE	NOTES
WM 2-01	VALVE BOX	N/A	4	747.99	N/A	TO BE REMOVED

TREE REMOVAL SCHEDULE

Tag #	Common Name	DIAMETER
2803	DEAD	3
2805	European Buckthorn	5
2935	Slippery Elm	5

N 2ND AVE & DELNOR AVE
UTILITY IMPROVEMENTS

REMOVAL PLAN
N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

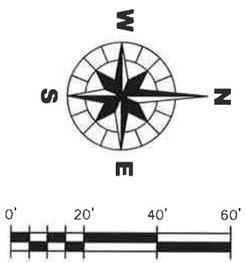
DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

CLIENT : CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. RM2
SHEET

PLOT DATE = 3/5/2020
USER NAME = mwaters
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_rm2.dgn



LEGEND

- FULL-DEPTH PAVEMENT REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 2.5"
- HMA SURFACE REMOVAL - BUTT JOINT
- LANDSCAPED AREAS
- TREE REMOVAL *INDICATES DEAD TREE
- WATER MAIN TO BE ABANDONED (TBA)
- SANITARY SEWER TO BE REMOVED (TBR)
- STORM SEWER TO BE REMOVED (TBR)/ ABANDONED & FILLED (TBA)
- UTILITY STRUCTURE TO BE REMOVED
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT

NOTES

1. TEMPORARY FENCING WITH ORANGE SNOW FENCE TO BE PROVIDED AS SHOWN ON MAINTENANCE OF TRAFFIC PLAN.
2. SPECIALTY ITEMS SUCH AS COBBLESTONE, BRICK PAVERS, MAILBOXES, ETC. SHALL BE CAREFULLY REMOVED AND SHALL BE RE-USED OR REPLACED AS DIRECTED.
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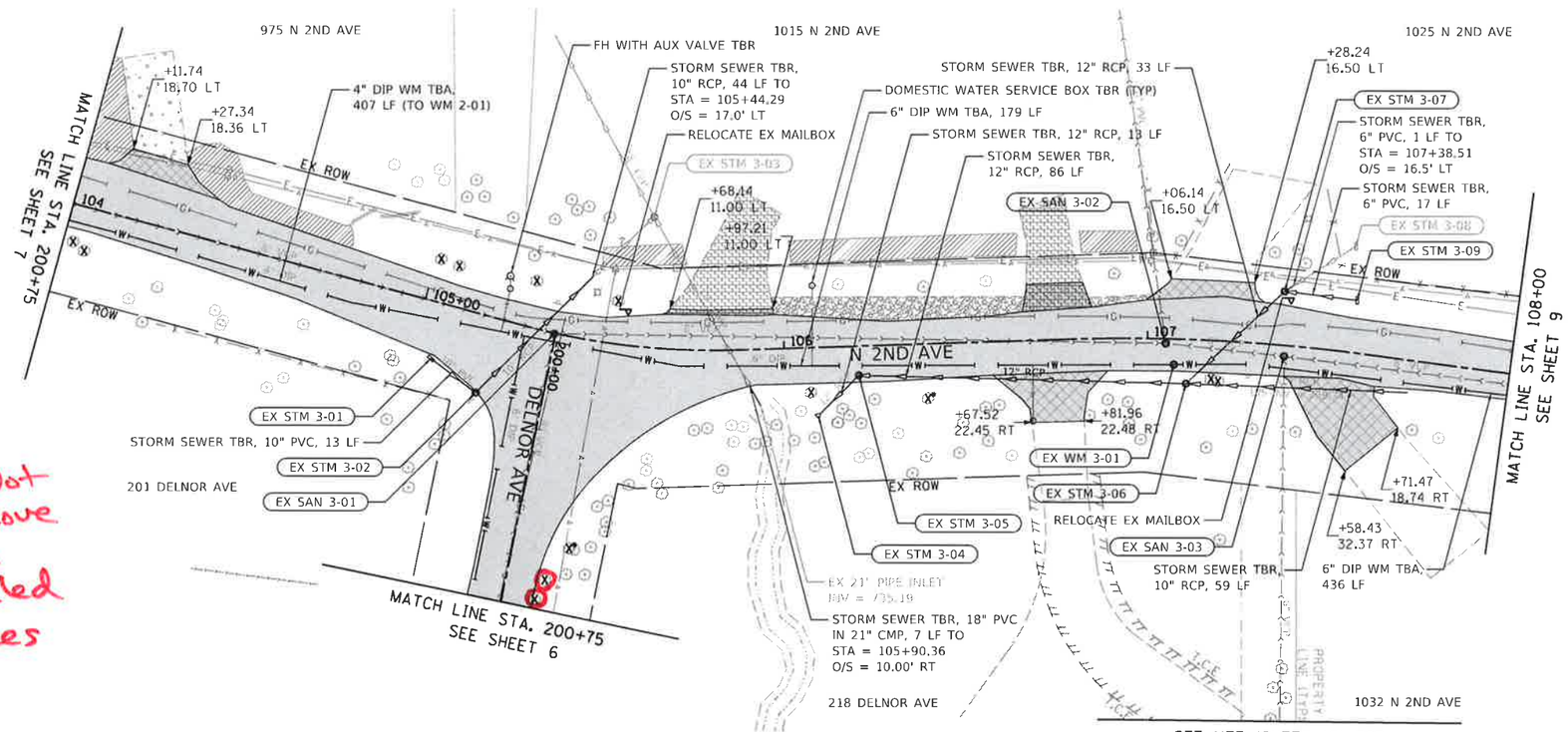
4. LIMITS OF DRIVEWAY REMOVAL TYPICAL CALLOUT:
   +XX.XX
   XX LT OR RT



TREE REMOVAL SCHEDULE

Tag #	Common Name	DIAMETER
2516	Siberian Elm	17
2517	Siberian Elm	9
2563	Northern White Oak	19
2567	DEAD	4
2608	~~Northern White Oak~~	~~30~~
2622	DEAD	3
2645	~~American Basswood~~	~~7~~
2810	Slippery Elm	8
2833	Slippery Elm	5
2919	European Buckthorn	3
2922	Wild Black Cherry	12
2932	Siberian Elm	11
2940	Slippery Elm	7

Do Not Remove Red Circled Trees

EXISTING UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX STM 3-01	INLET	2	740.10	738.15				TO BE REMOVED
EX STM 3-02	CATCH BASIN	4	740.32		738.17		738.17	TO BE REMOVED
EX STM 3-03	CATCH BASIN	4	736.50	732.50	731.95	732.90		TO REMAIN
EX STM 3-04	CONC. FES	N/A	N/A	736.68				TO BE REMOVED
EX STM 3-05	CATCH BASIN	4	738.63	736.58	736.58			TO BE REMOVED
EX STM 3-06	MANHOLE	4						TO BE REMOVED
EX STM 3-07	INLET	4	738.63					TO BE REMOVED
EX STM 3-08	INLET	2	737.22					TO REMAIN
EX STM 3-09	INLET	2						TO BE REMOVED

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX SAN 3-01	MANHOLE	4	740.18	731.28	731.58	731.38		TO BE REMOVED
EX SAN 3-02	MANHOLE	4	739.61	728.56	728.56		728.11	TO BE REMOVED
EX SAN 3-03	MANHOLE	4	740.01	728.86	728.86	728.86		TO BE REMOVED

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	VALVE SIZE (IN)	RIM	TOP OF PIPE	NOTES
WM 3-01	VALVE VAULT	4	6	739.51	733.14	TO BE REMOVED

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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3		
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7		
8		

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

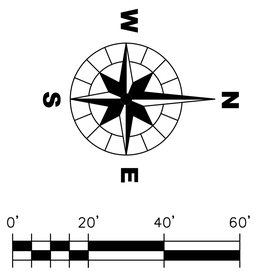
REMOVAL PLAN N 2ND AVENUE

CLIENT : CITY OF ST. CHARLES 2 EAST MAIN STREET ST. CHARLES, IL 60174

WBK ENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. RM3
SHEET
8 OF 52

PLOT DATE = 3/5/2020
USER NAME = maurkosp
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\acad\Civil\Dgns\Sht\sht_rm3.dgn

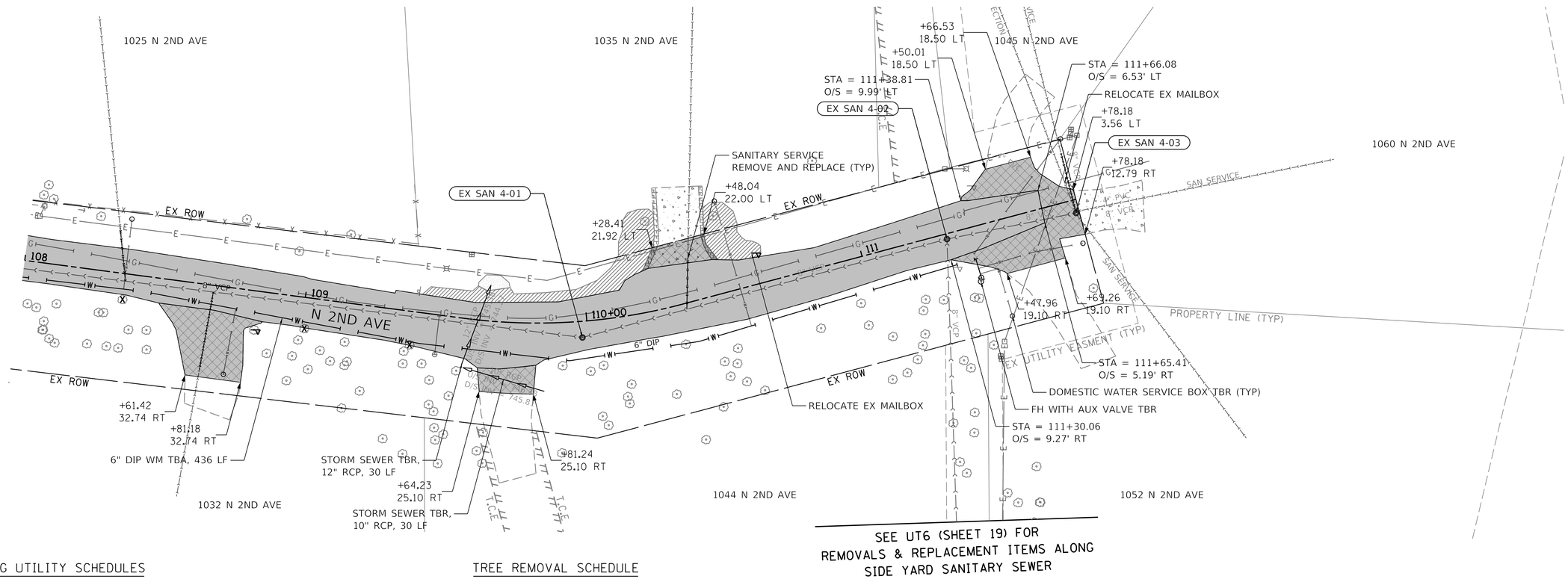


LEGEND

- FULL-DEPTH PAVEMENT REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 2.5"
- HMA SURFACE REMOVAL - BUTT JOINT
- LANDSCAPED AREAS
- TREE REMOVAL *INDICATES DEAD TREE
- WATER MAIN TO BE ABANDONED (TBA)
- SANITARY SEWER TO BE REMOVED (TBR)
- STORM SEWER TO BE REMOVED (TBR)/ ABANDONED & FILLED (TBA)
- UTILITY STRUCTURE TO BE REMOVED
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT

NOTES

1. TEMPORARY FENCING WITH ORANGE SNOW FENCE TO BE PROVIDED AS SHOWN ON MAINTENANCE OF TRAFFIC PLAN.
2. SPECIALTY ITEMS SUCH AS COBBLESTONE, BRICK PAVERS, MAILBOXES, ETC. SHALL BE CAREFULLY REMOVED AND SHALL BE RE-USED OR REPLACED AS DIRECTED.
3. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.
4. LIMITS OF DRIVEWAY REMOVAL TYPICAL CALLOUT:
   +XX.XX
   XX LT OR RT



SEE UT6 (SHEET 19) FOR
REMOVALS & REPLACEMENT ITEMS ALONG
SIDE YARD SANITARY SEWER

EXISTING UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX SAN 4-01	MANHOLE	4	747.94	734.49	734.49			TO BE REMOVED
EX SAN 4-02	MANHOLE	4	753.36	744.91	744.91	745.06		TO BE REMOVED
EX SAN 4-03	MANHOLE	4	753.78	748.28 746.28	746.28		747.48 746.53	TO BE REMOVED

TREE REMOVAL SCHEDULE

Tag #	Common Name	DIAMETER
1416	European Buckthorn	1,1,1,2,2,3
2506	White Mulberry	5
2528	Northern White Oak	20

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

REMOVAL PLAN N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

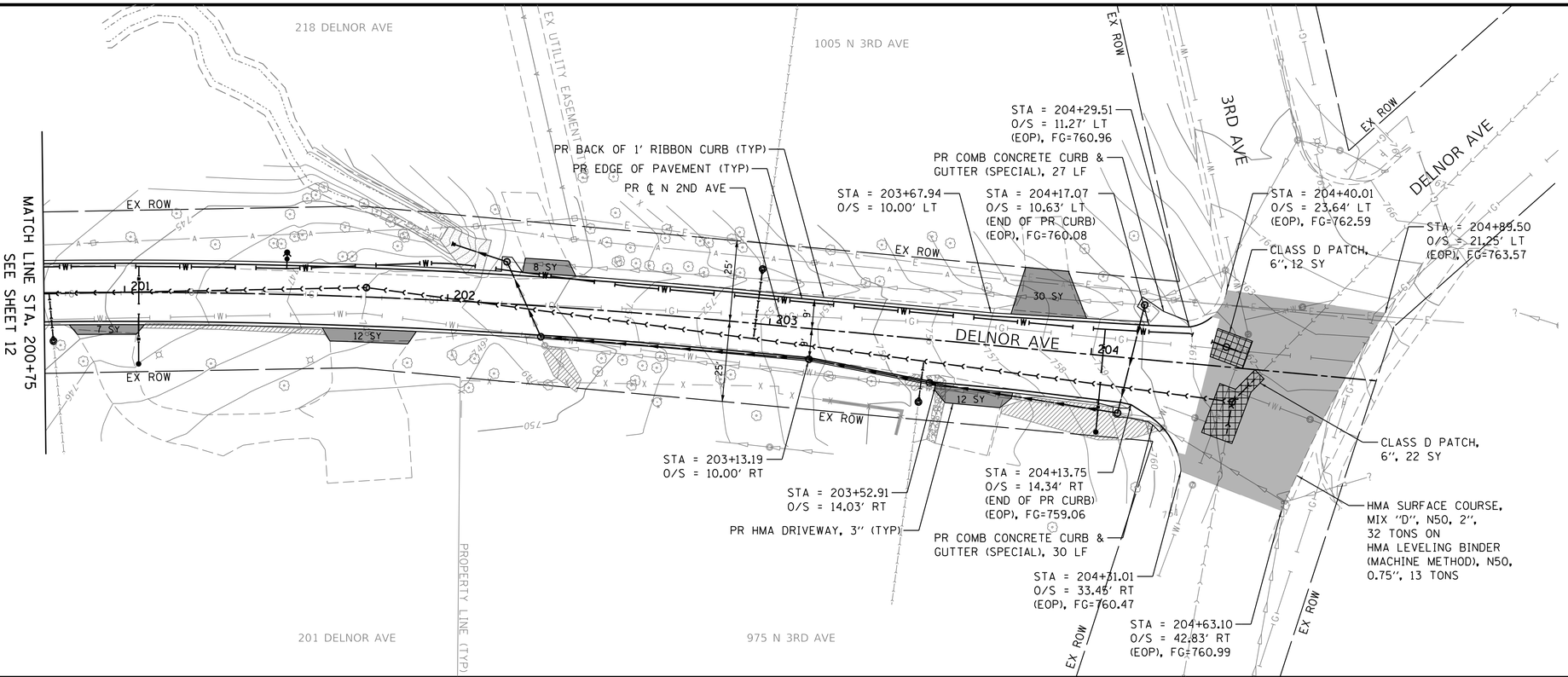
CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

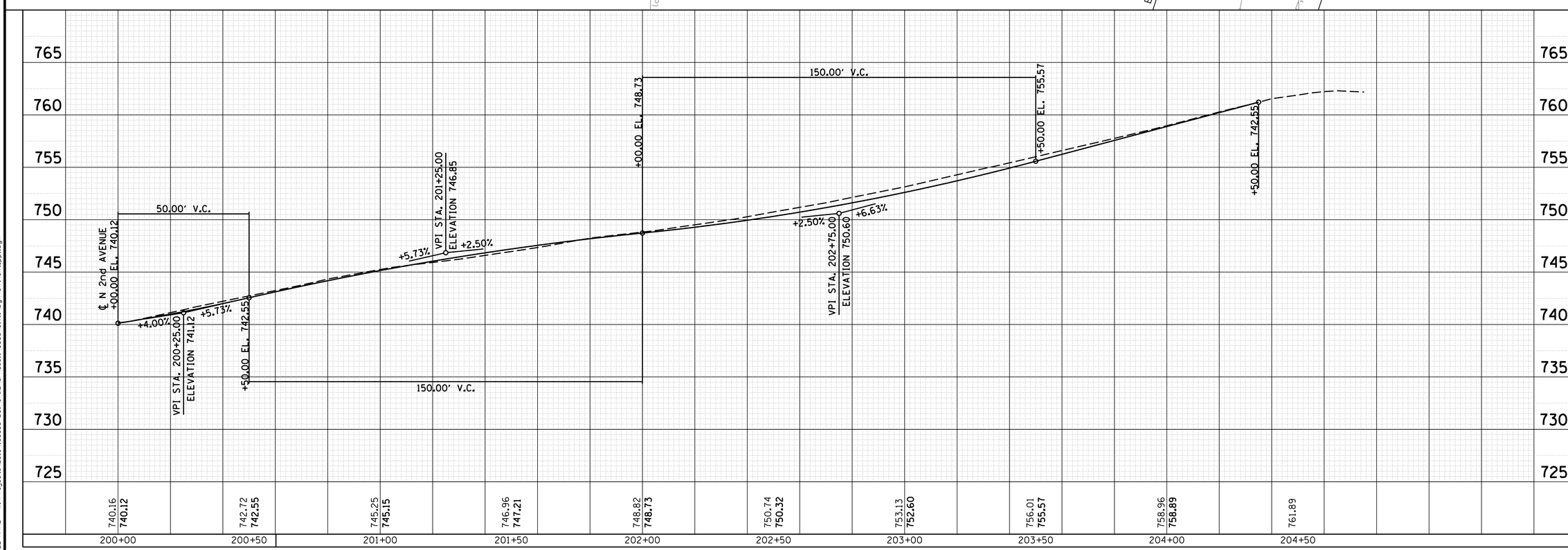
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **RM4**
SHEET
9 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwoodson
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_rm4.dgn

NOTES:
1. TEMPORARY CONSTRUCTION EASEMENT TO BE SECURED BY THE CITY OF ST. CHARLES
2. DIMENSIONS TO BACK OF CURB UNLESS OTHERWISE STATED.
3. EXISTING MAILBOXES RELOCATED DURING CONSTRUCTION SHALL BE RE-INSTALLED OR REPLACED AS DIRECTED.
4. TEMPORARY MAILBOX BANK TO BE PROVIDED AT INTERSECTION OF 3RD AVENUE & DELNOR AVENUE





N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

ROAD PLAN & PROFILES DELNOR AVENUE

DSGN.	JLB
DWN.	JLB
CHKD.	VDP
SCALE : AS SHOWN	

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
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8		

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **PP1**
SHEET
10 OF 52

PLOT DATE = 3/5/2020
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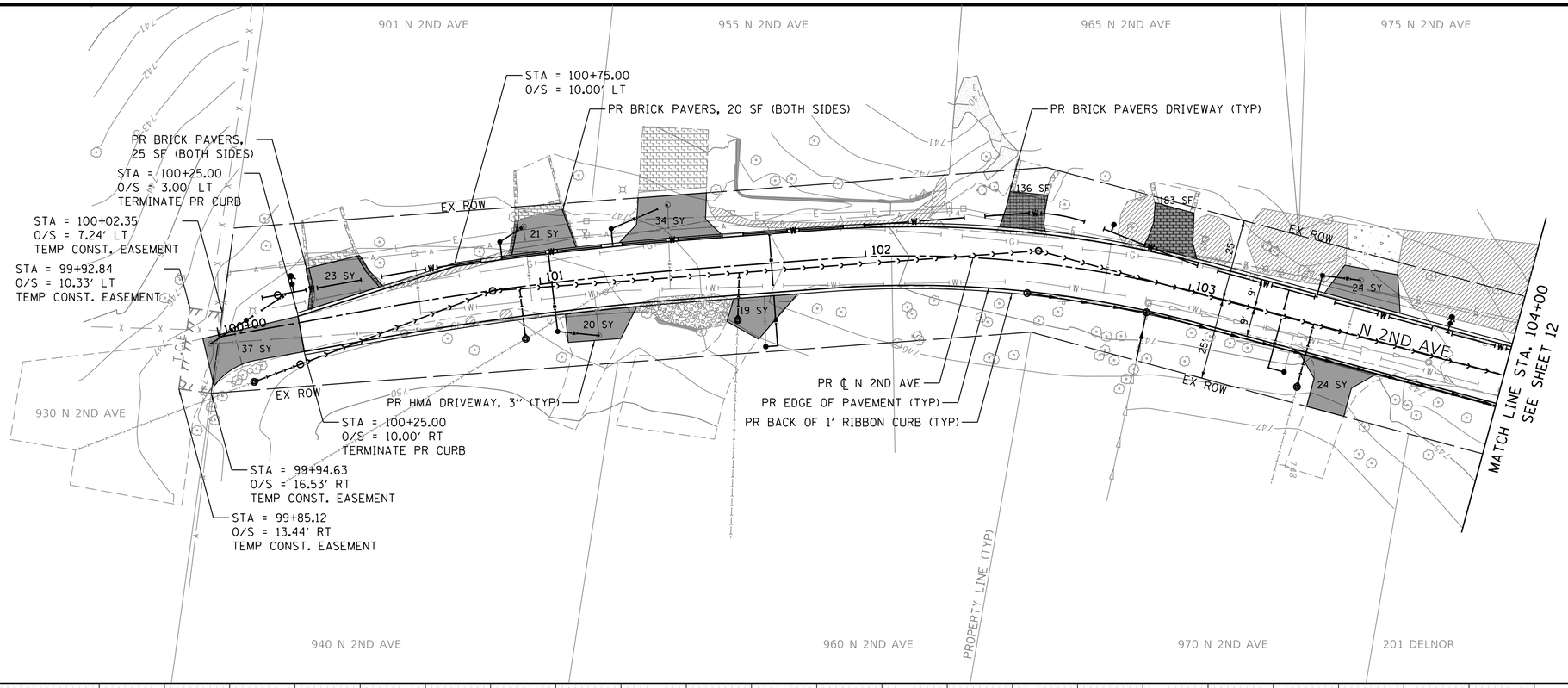

NOTES:

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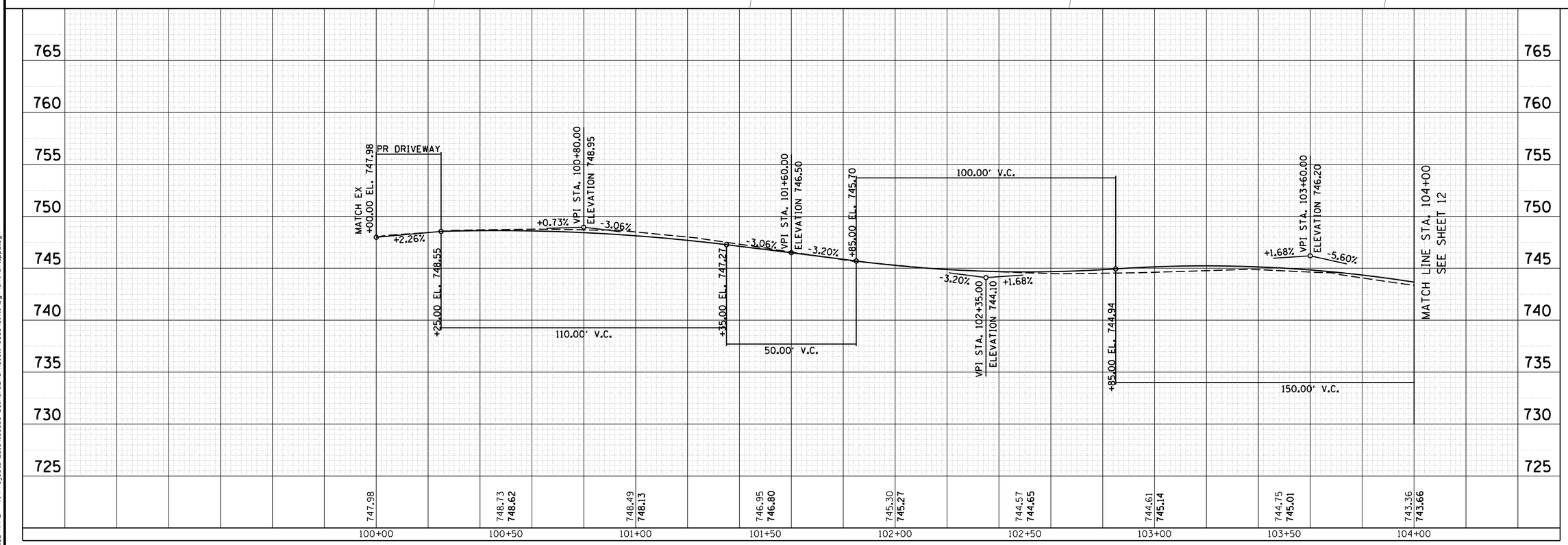

N 2ND AVE & DELNOR AVE
UTILITY IMPROVEMENTS

ROAD PLAN & PROFILES
N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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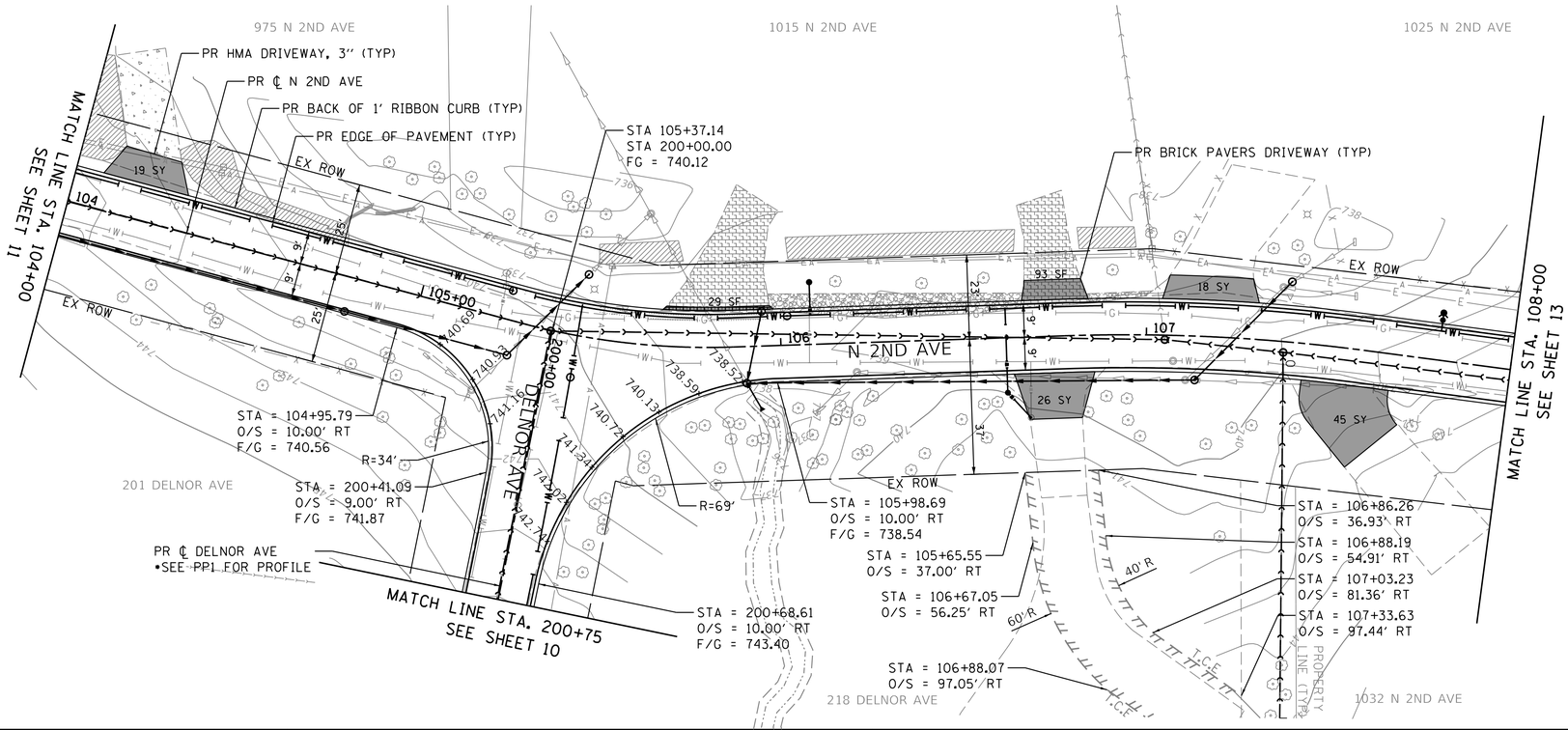
DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

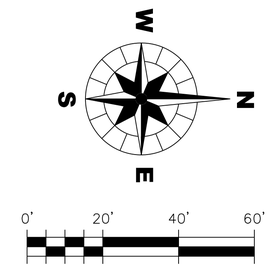
CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. PP2
SHEET
11 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwheeler
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_pp2.dgn





NOTES:

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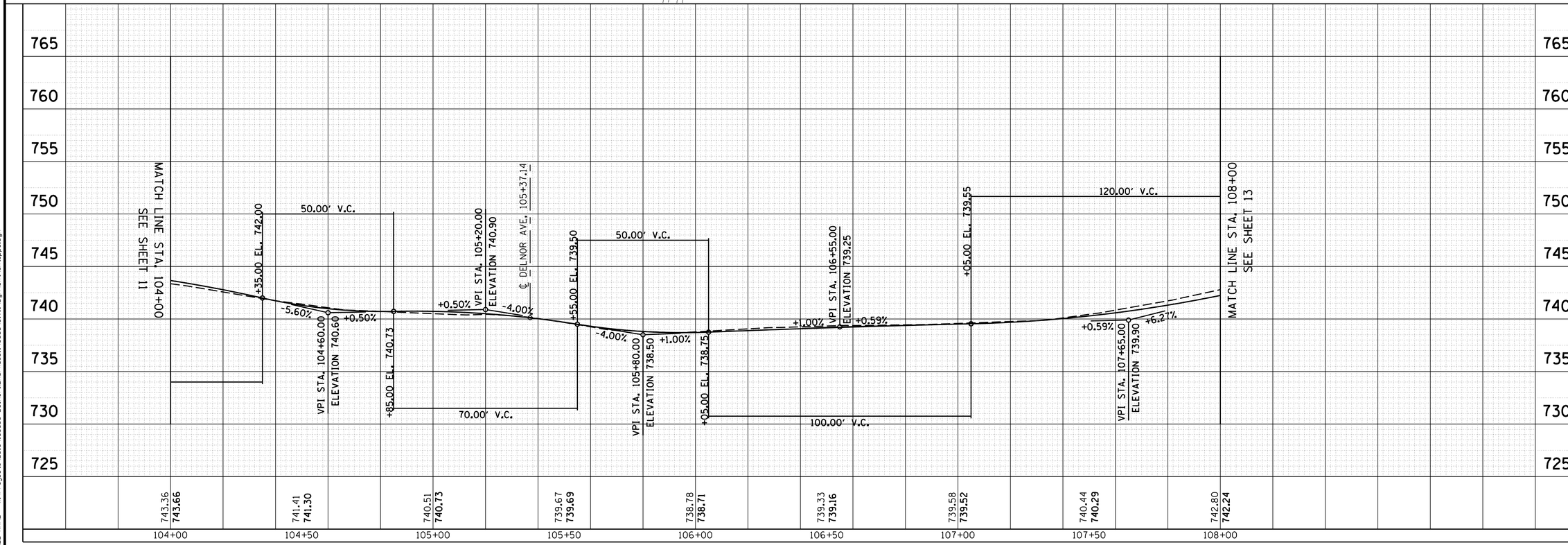

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

ROAD PLAN & PROFILES N 2ND AVENUE

DSGN.	JLB
DWN.	JLB
CHKD.	VDP
SCALE : AS SHOWN	

NO.	DATE	NATURE OF REVISION
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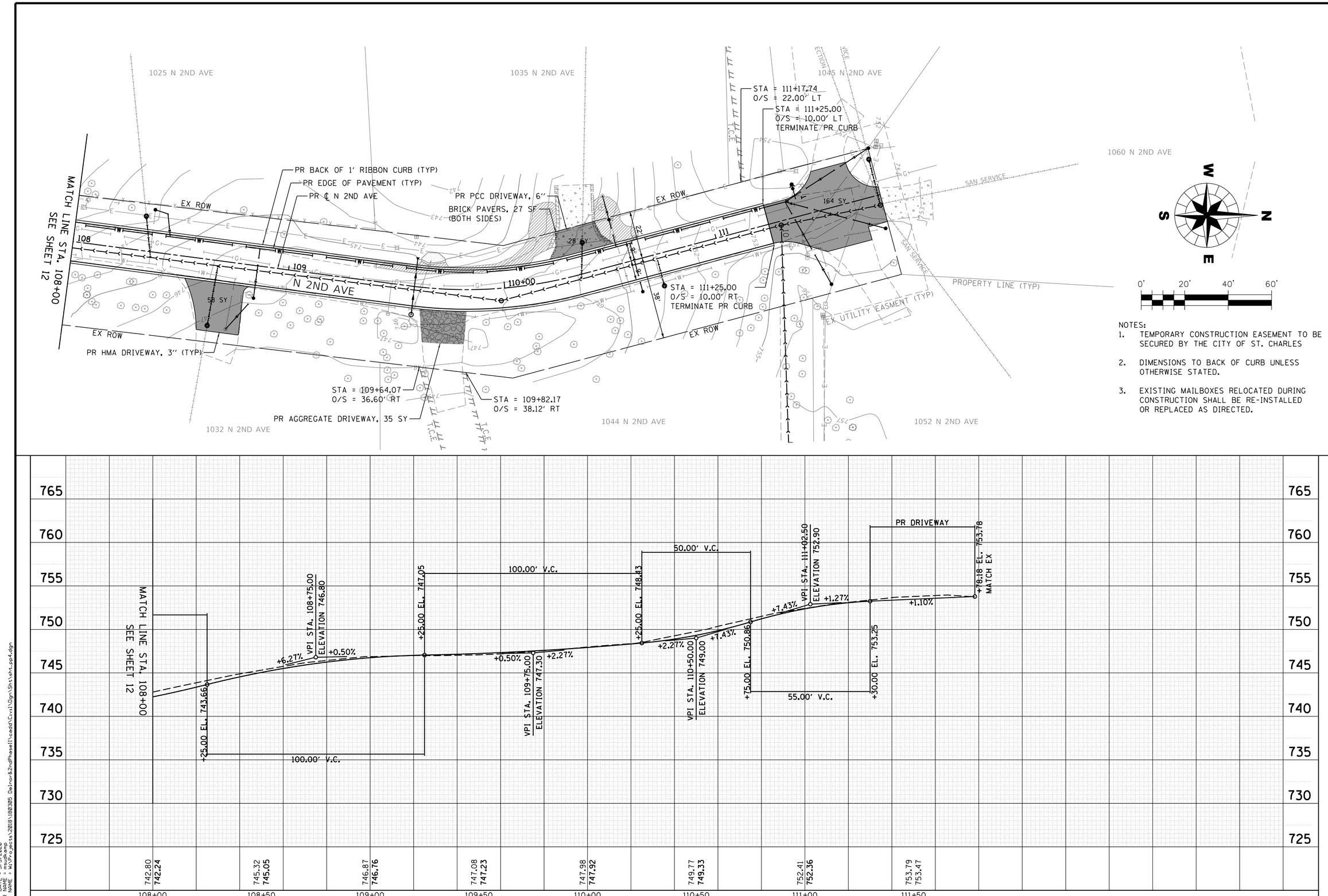
CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **PP3**
SHEET
12 OF 52

PLOT DATE = 3/5/2020
USER NAME = wbkengineering
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_pp3.dgn



NOTES:

1. TEMPORARY CONSTRUCTION EASEMENT TO BE SECURED BY THE CITY OF ST. CHARLES
2. DIMENSIONS TO BACK OF CURB UNLESS OTHERWISE STATED.
3. EXISTING MAILBOXES RELOCATED DURING CONSTRUCTION SHALL BE RE-INSTALLED OR REPLACED AS DIRECTED.

NO.	DATE	NATURE OF REVISION
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8		

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

ROAD PLAN & PROFILES N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK ENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. PP4
SHEET
13 OF 52

PLOT DATE = 3/5/2020
USER NAME = wbkadmin
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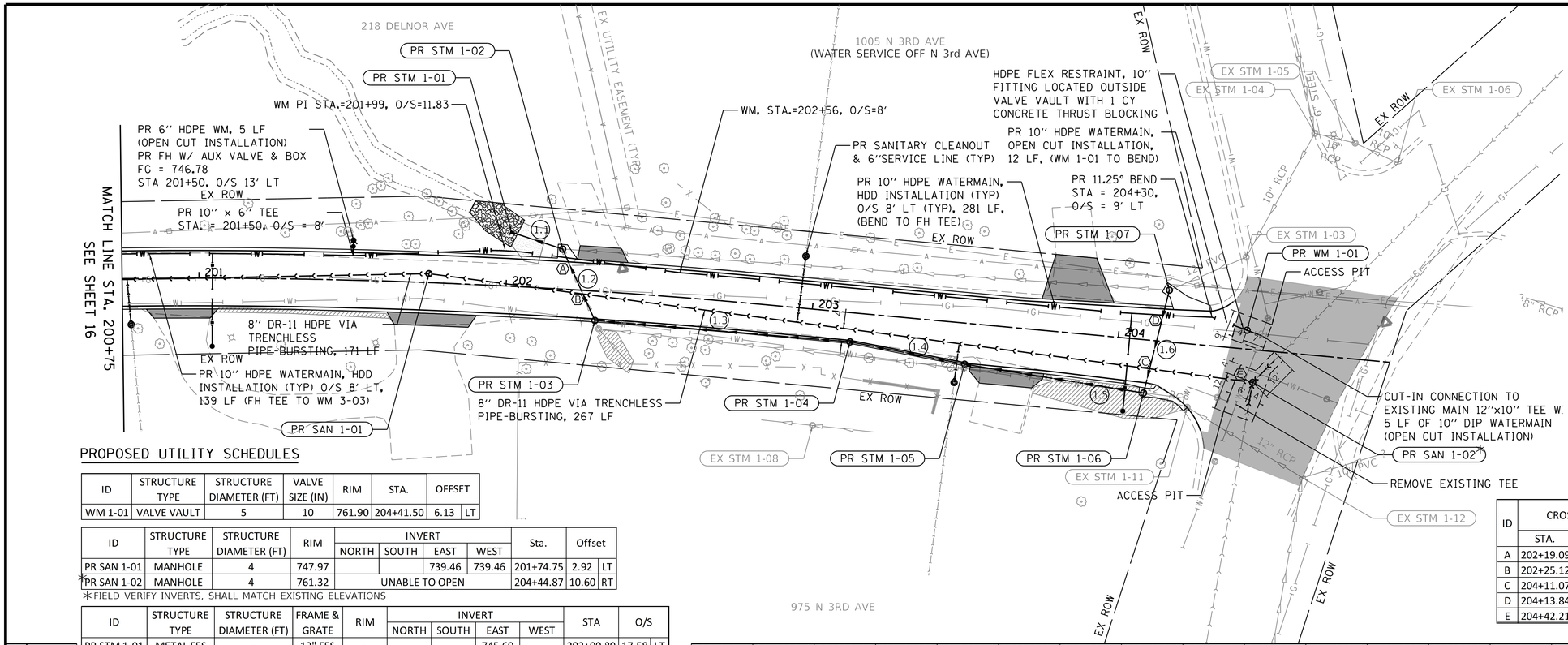
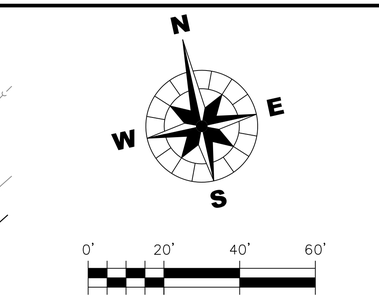




NOTE:

TEMPORARY CONSTRUCTION EASEMENT TO BE SECURED BY THE CITY OF ST. CHARLES.

STORM SEWER WORK (PIPE 1.3, 1.4, & 1.5) OVER EXISTING WATER MAIN (TBA) SHALL BE CONSTRUCTED AFTER PROPOSED WATER MAIN IS IN SERVICE.

SANITARY SEWER SERVICES

ADDRESS	STA.	O/S
201 DELNOR AVE	200+77	0.3 RT
1005 N 3RD AVE	202+95	4.7 RT
975 N 3RD AVE	203+49	6.8 RT

CROSSINGS

ID	CROSSING			UPPER UTILITY		LOWER UTILITY		SEPARATION
	STA.	O/S		TYPE	B/P	TYPE	T/P	
A	202+19.09	10.29	LT	STORM	745.80	WATER	744.25	1.55
B	202+25.12	1.16	RT	STORM	746.03	SAN	742.32	3.71
C	204+11.07	9.27	RT	STORM	756.20	SAN	750.13	6.07
D	204+13.84	8.52	LT	STORM	756.55	WATER	754.81	1.74
E	204+42.21	10.49	RT	WATER	756.28	SAN	752.09	4.19

PROPOSED UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	VALVE SIZE (IN)	RIM	STA.	OFFSET	
WM 1-01	VALVE VAULT	5	10	761.90	204+41.50	6.13	LT

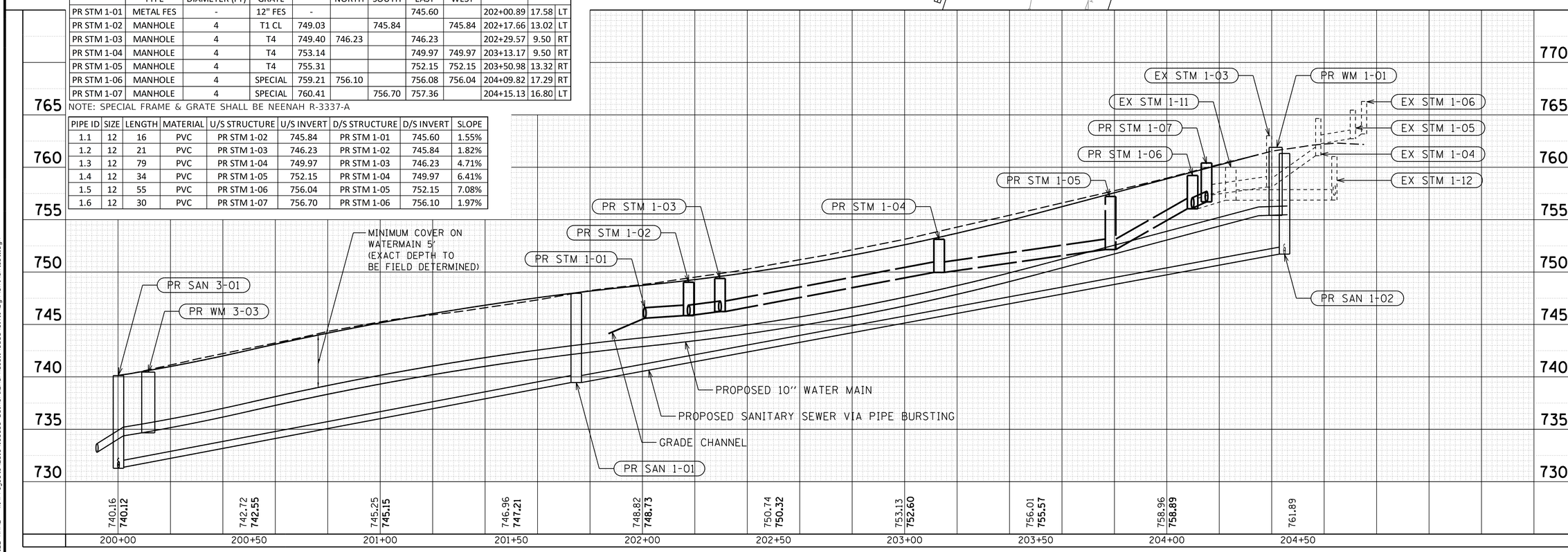
ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				Sta.	Offset	
				NORTH	SOUTH	EAST	WEST			
PR SAN 1-01	MANHOLE	4	747.97			739.46	739.46	201+74.75	2.92	LT
*PR SAN 1-02	MANHOLE	4	761.32	UNABLE TO OPEN				204+44.87	10.60	RT

*FIELD VERIFY INVERTS, SHALL MATCH EXISTING ELEVATIONS

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	FRAME & GRATE	RIM	INVERT				STA	O/S	
					NORTH	SOUTH	EAST	WEST			
PR STM 1-01	METAL FES	-	12" FES	-			745.60		202+00.89	17.58	LT
PR STM 1-02	MANHOLE	4	T1 CL	749.03		745.84		745.84	202+17.66	13.02	LT
PR STM 1-03	MANHOLE	4	T4	749.40	746.23		746.23		202+29.57	9.50	RT
PR STM 1-04	MANHOLE	4	T4	753.14			749.97	749.97	203+13.17	9.50	RT
PR STM 1-05	MANHOLE	4	T4	755.31			752.15	752.15	203+50.98	13.32	RT
PR STM 1-06	MANHOLE	4	SPECIAL	759.21	756.10		756.08	756.04	204+09.82	17.29	RT
PR STM 1-07	MANHOLE	4	SPECIAL	760.41		756.70	757.36		204+15.13	16.80	LT

NOTE: SPECIAL FRAME & GRATE SHALL BE NEENAH R-3337-A

PIPE ID	SIZE	LENGTH	MATERIAL	U/S STRUCTURE	U/S INVERT	D/S STRUCTURE	D/S INVERT	SLOPE
1.1	12	16	PVC	PR STM 1-02	745.84	PR STM 1-01	745.60	1.55%
1.2	12	21	PVC	PR STM 1-03	746.23	PR STM 1-02	745.84	1.82%
1.3	12	79	PVC	PR STM 1-04	749.97	PR STM 1-03	746.23	4.71%
1.4	12	34	PVC	PR STM 1-05	752.15	PR STM 1-04	749.97	6.41%
1.5	12	55	PVC	PR STM 1-06	756.04	PR STM 1-05	752.15	7.08%
1.6	12	30	PVC	PR STM 1-07	756.70	PR STM 1-06	756.10	1.97%



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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8		

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

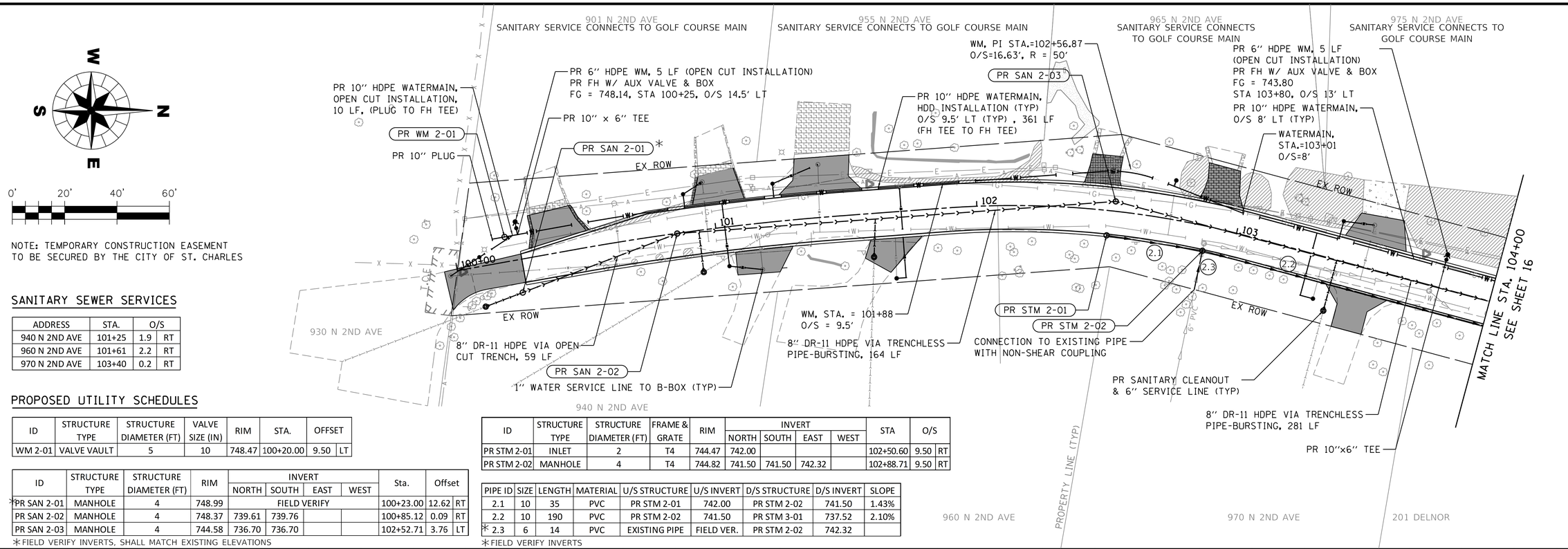
UTILITY PLAN & PROFILES DELNOR AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK ENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. UT1
SHEET
14 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwoodson
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_utl.dgn



NOTE: TEMPORARY CONSTRUCTION EASEMENT TO BE SECURED BY THE CITY OF ST. CHARLES

SANITARY SEWER SERVICES

ADDRESS	STA.	O/S	
940 N 2ND AVE	101+25	1.9	RT
960 N 2ND AVE	101+61	2.2	RT
970 N 2ND AVE	103+40	0.2	RT

PROPOSED UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	VALVE SIZE (IN)	RIM	STA.	OFFSET	
WM 2-01	VALVE VAULT	5	10	748.47	100+20.00	9.50	LT

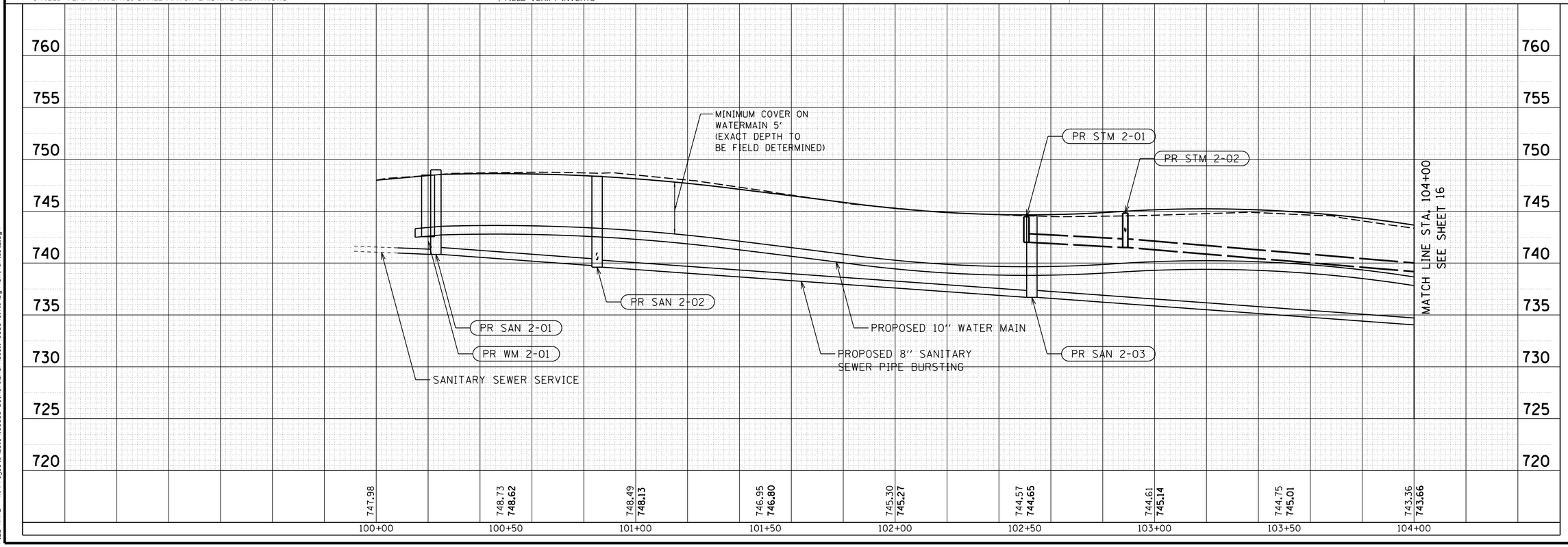
ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				Sta.	Offset	
				NORTH	SOUTH	EAST	WEST			
*PR SAN 2-01	MANHOLE	4	748.99	FIELD VERIFY				100+23.00	12.62	RT
PR SAN 2-02	MANHOLE	4	748.37	739.61	739.76			100+85.12	0.09	RT
PR SAN 2-03	MANHOLE	4	744.58	736.70	736.70			102+52.71	3.76	LT

*FIELD VERIFY INVERTS, SHALL MATCH EXISTING ELEVATIONS

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	FRAME & GRATE	RIM	INVERT				STA	O/S	
					NORTH	SOUTH	EAST	WEST			
PR STM 2-01	INLET	2	T4	744.47	742.00				102+50.60	9.50	RT
PR STM 2-02	MANHOLE	4	T4	744.82	741.50	741.50	742.32		102+88.71	9.50	RT

PIPE ID	SIZE	LENGTH	MATERIAL	U/S STRUCTURE	U/S INVERT	D/S STRUCTURE	D/S INVERT	SLOPE
2.1	10	35	PVC	PR STM 2-01	742.00	PR STM 2-02	741.50	1.43%
2.2	10	190	PVC	PR STM 2-02	741.50	PR STM 3-01	737.52	2.10%
* 2.3	6	14	PVC	EXISTING PIPE	FIELD VER.	PR STM 2-02	742.32	

*FIELD VERIFY INVERTS



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

UTILITY PLAN & PROFILES N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

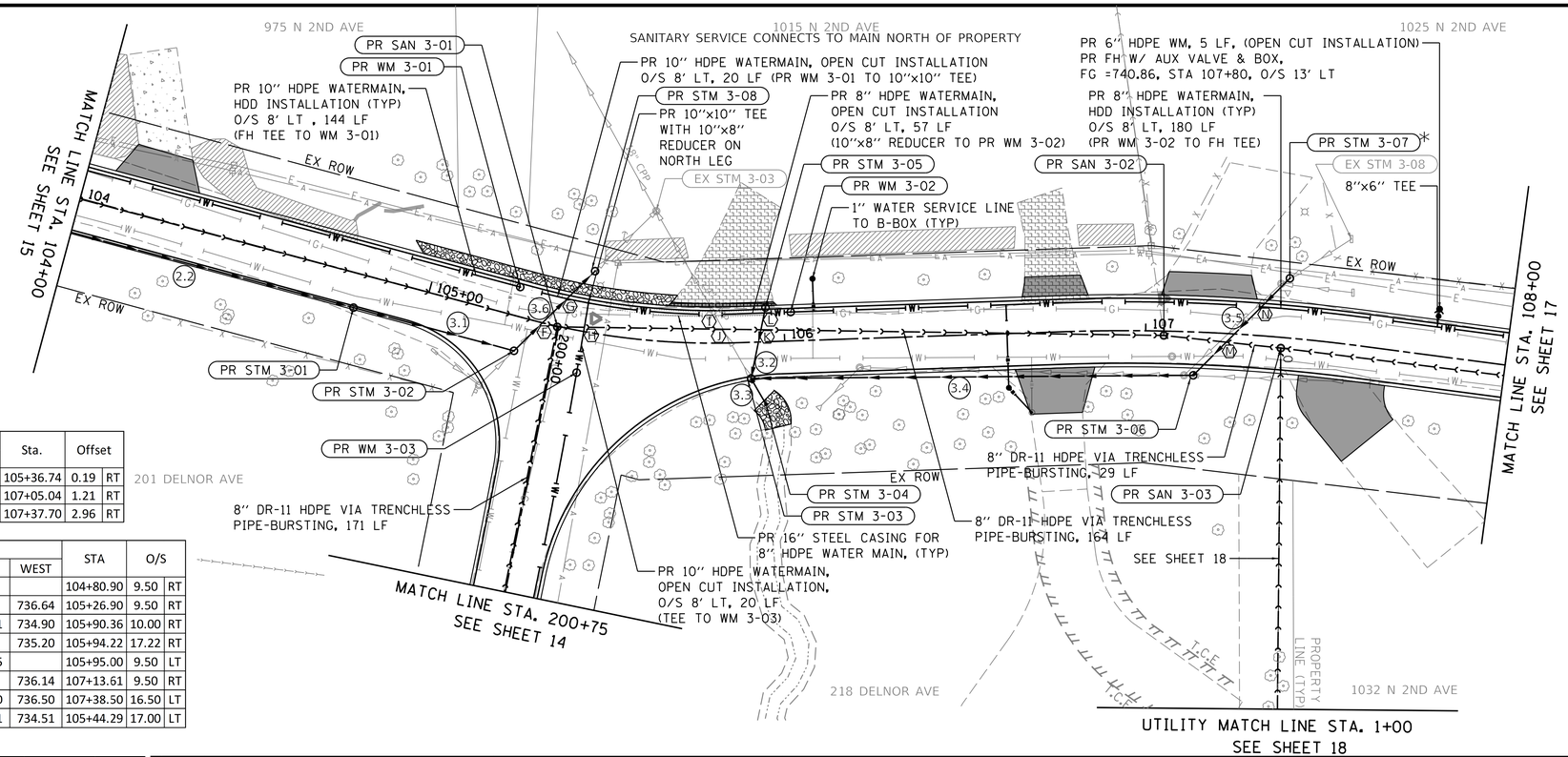
WBK ENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **UT2**
SHEET
15 OF 52

PLOT DATE = 3/5/2020
USER NAME = wbkadmin
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_ut2.dgn

NOTE: TEMPORARY CONSTRUCTION EASEMENT TO BE SECURED BY THE CITY OF ST. CHARLES

0' 20' 40' 60'



PROPOSED UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	VALVE SIZE (IN)	RIM	STA.	OFFSET	
WM 3-01	VALVE VAULT	5	10	740.27	105+24.00	8.00	LT
WM 3-02	VALVE VAULT	5	8	738.56	106+01.94	8.00	LT
WM 3-03	VALVE VAULT	5	10	740.46	200+11.54	7.35	LT

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				Sta.	Offset	
				NORTH	SOUTH	EAST	WEST			
PR SAN 3-01	MANHOLE	4	740.12	731.28	731.58	731.38		105+36.74	0.19	RT
PR SAN 3-02	MANHOLE	4	739.57	728.56	728.56		728.11	107+05.04	1.21	RT
PR SAN 3-03	MANHOLE	4	740.05	728.86	728.86	728.86		107+37.70	2.96	RT

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	FRAME & GRATE	RIM	INVERT				STA	O/S	
					NORTH	SOUTH	EAST	WEST			
PR STM 3-01	MANHOLE	4	T4	740.53	737.52	737.52			104+80.90	9.50	RT
PR STM 3-02	MANHOLE	4	T1 CL	740.49		736.64		736.64	105+26.90	9.50	RT
PR STM 3-03	MANHOLE	6	T4	738.52	734.90	734.80	735.01	734.90	105+90.36	10.00	RT
PR STM 3-04	METAL FES	-	18" FES	-				735.20	105+94.22	17.22	RT
PR STM 3-05	INLET	2	T4	738.52			735.35		105+95.00	9.50	LT
PR STM 3-06	MANHOLE	4	T8	739.79		736.14		736.14	107+13.61	9.50	RT
*PR STM 3-07	INLET	2	T8	739.54			736.50	736.50	107+38.50	16.50	LT
PR STM 3-08	MANHOLE	4	T1 CL	738.26			734.51	734.51	105+44.29	17.00	LT

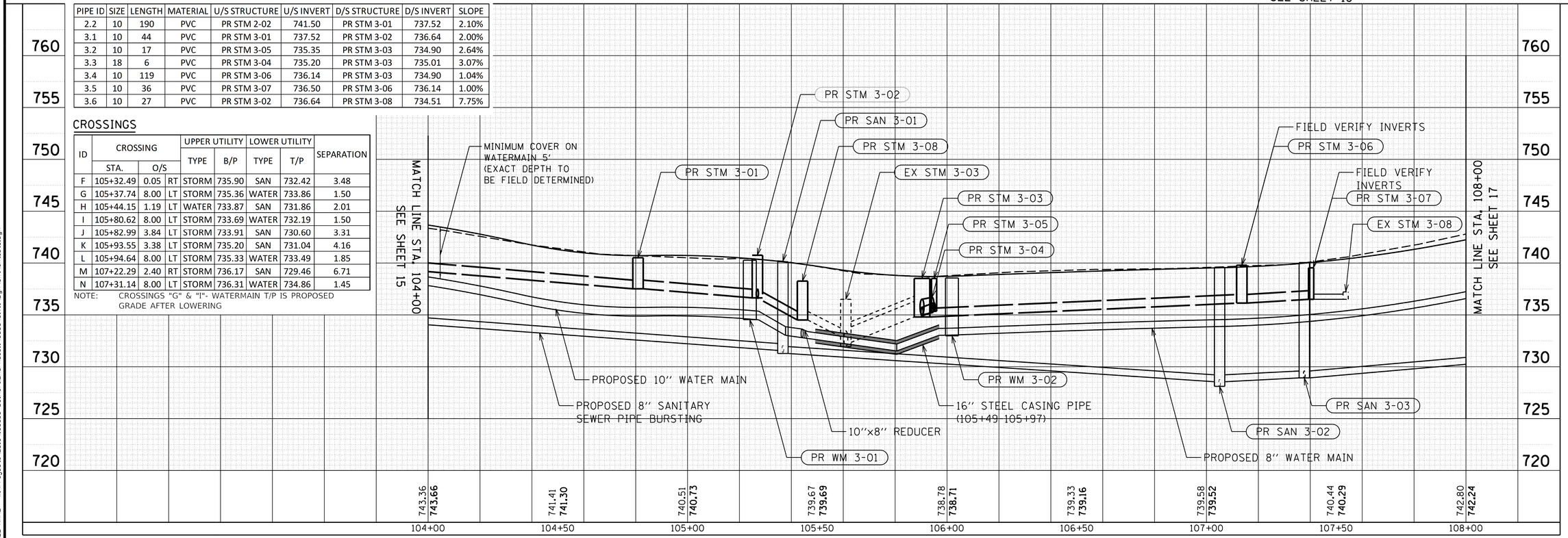
*FIELD VERIFY INVERTS

PIPE ID	SIZE	LENGTH	MATERIAL	U/S STRUCTURE	U/S INVERT	D/S STRUCTURE	D/S INVERT	SLOPE
2.2	10	190	PVC	PR STM 2-02	741.50	PR STM 3-01	737.52	2.10%
3.1	10	44	PVC	PR STM 3-01	737.52	PR STM 3-02	736.64	2.00%
3.2	10	17	PVC	PR STM 3-05	735.35	PR STM 3-03	734.90	2.64%
3.3	18	6	PVC	PR STM 3-04	735.20	PR STM 3-03	735.01	3.07%
3.4	10	119	PVC	PR STM 3-06	736.14	PR STM 3-03	734.90	1.04%
3.5	10	36	PVC	PR STM 3-07	736.50	PR STM 3-06	736.14	1.00%
3.6	10	27	PVC	PR STM 3-02	736.64	PR STM 3-08	734.51	7.75%

CROSSINGS

ID	CROSSING			UPPER UTILITY		LOWER UTILITY		SEPARATION
	STA.	O/S		TYPE	B/P	TYPE	T/P	
F	105+32.49	0.05	RT	STORM	735.90	SAN	732.42	3.48
G	105+37.74	8.00	LT	STORM	735.36	WATER	733.86	1.50
H	105+44.15	1.19	LT	WATER	733.87	SAN	731.86	2.01
I	105+80.62	8.00	LT	STORM	733.69	WATER	732.19	1.50
J	105+82.99	3.84	LT	STORM	733.91	SAN	730.60	3.31
K	105+93.55	3.38	LT	STORM	735.20	SAN	731.04	4.16
L	105+94.64	8.00	LT	STORM	735.33	WATER	733.49	1.85
M	107+22.29	2.40	RT	STORM	736.17	SAN	729.46	6.71
N	107+31.14	8.00	LT	STORM	736.31	WATER	734.86	1.45

NOTE: CROSSINGS "G" & "I"- WATERMAIN T/P IS PROPOSED GRADE AFTER LOWERING



N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

UTILITY PLAN & PROFILES N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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7		
8		

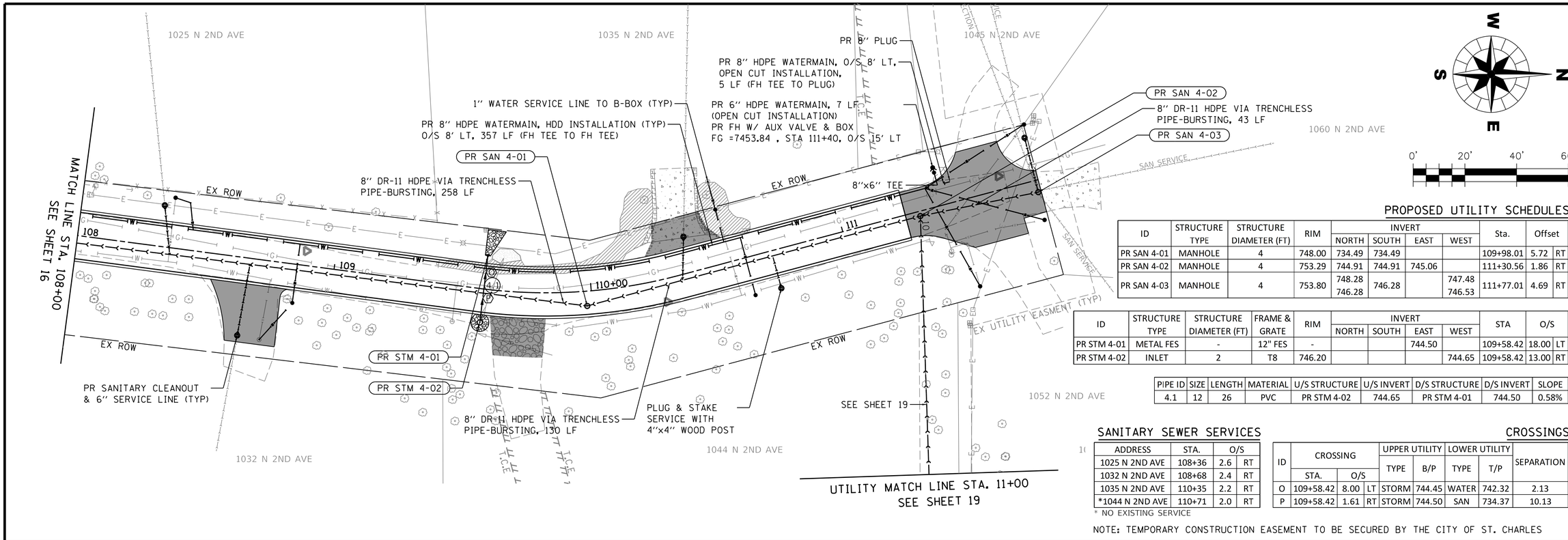
DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

CLIENT : CITY OF ST. CHARLES 2 EAST MAIN STREET ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. UT3
SHEET 16 OF 52

PLOT DATE = 3/5/2020
USER NAME = vdeprospero
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_ut3.dgn



PROPOSED UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT NORTH	INVERT SOUTH	INVERT EAST	INVERT WEST	Sta.	Offset	
PR SAN 4-01	MANHOLE	4	748.00	734.49	734.49			109+98.01	5.72	RT
PR SAN 4-02	MANHOLE	4	753.29	744.91	744.91	745.06		111+30.56	1.86	RT
PR SAN 4-03	MANHOLE	4	753.80	748.28 746.28	746.28		747.48 746.53	111+77.01	4.69	RT

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	FRAME & GRATE	RIM	INVERT NORTH	INVERT SOUTH	INVERT EAST	INVERT WEST	STA	O/S	
PR STM 4-01	METAL FES	-	12" FES	-			744.50		109+58.42	18.00	LT
PR STM 4-02	INLET	2	T8	746.20				744.65	109+58.42	13.00	RT

PIPE ID	SIZE	LENGTH	MATERIAL	U/S STRUCTURE	U/S INVERT	D/S STRUCTURE	D/S INVERT	SLOPE
4.1	12	26	PVC	PR STM 4-02	744.65	PR STM 4-01	744.50	0.58%

SANITARY SEWER SERVICES

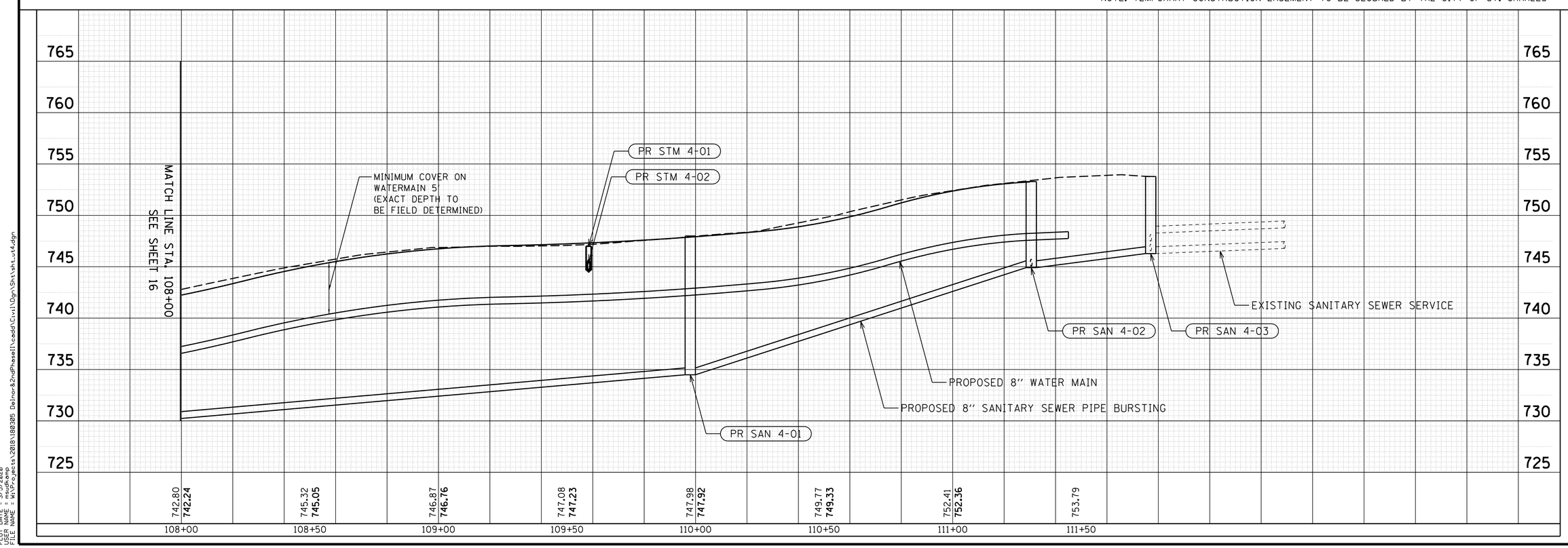
ADDRESS	STA.	O/S	
1025 N 2ND AVE	108+36	2.6	RT
1032 N 2ND AVE	108+68	2.4	RT
1035 N 2ND AVE	110+35	2.2	RT
*1044 N 2ND AVE	110+71	2.0	RT

* NO EXISTING SERVICE

CROSSINGS

ID	CROSSING STA.	CROSSING O/S		UPPER UTILITY TYPE	UPPER UTILITY B/P	LOWER UTILITY TYPE	LOWER UTILITY T/P	SEPARATION
O	109+58.42	8.00	LT	STORM	744.45	WATER	742.32	2.13
P	109+58.42	1.61	RT	STORM	744.50	SAN	734.37	10.13

NOTE: TEMPORARY CONSTRUCTION EASEMENT TO BE SECURED BY THE CITY OF ST. CHARLES



N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

UTILITY PLAN & PROFILES N 2ND AVENUE

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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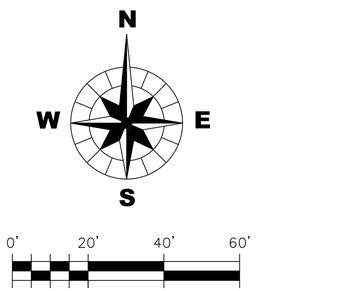
7		
8		

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

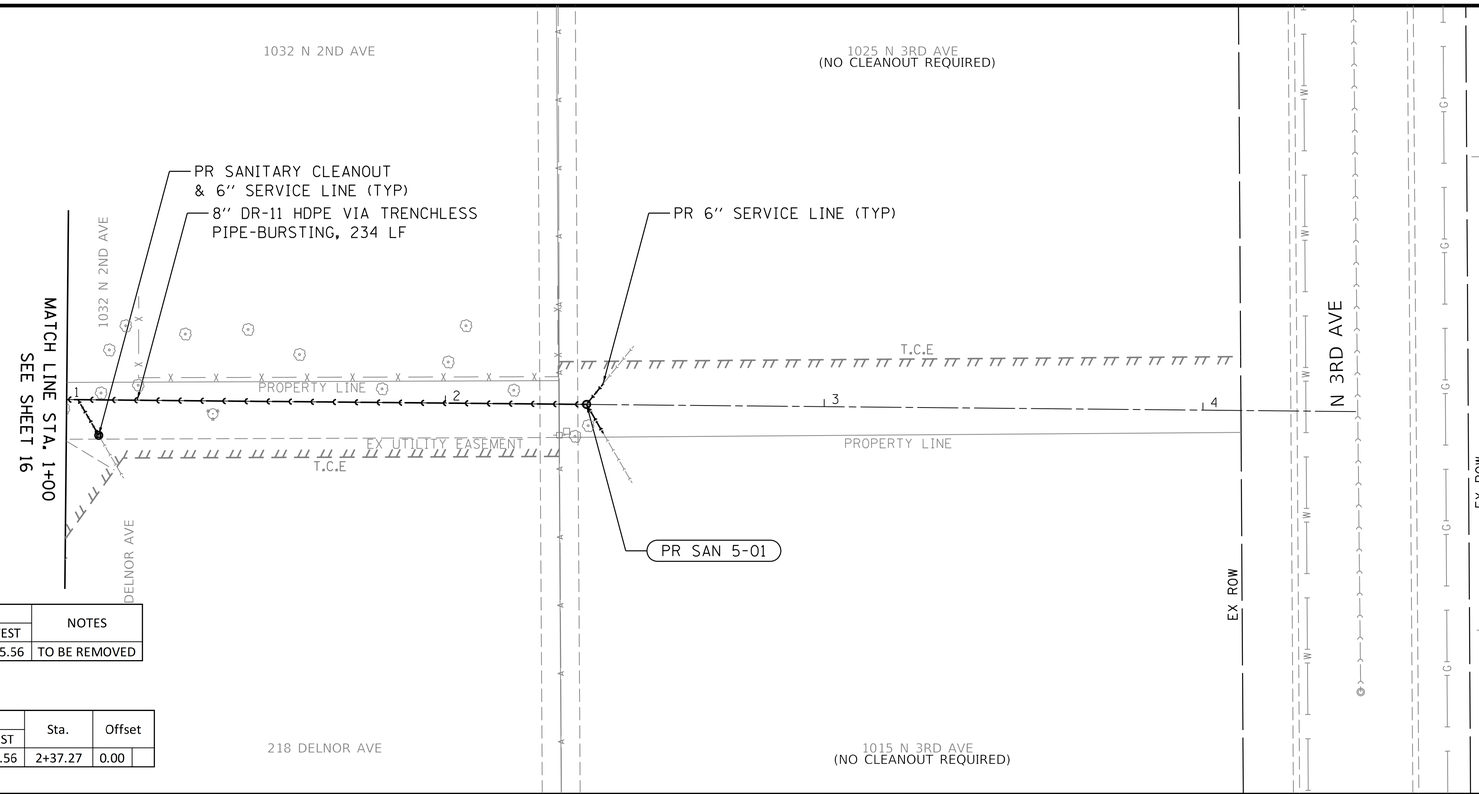
WBK ENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **UT4**
SHEET
17 OF 52

PLOT DATE = 3/6/2020
USER NAME = vdavenport
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_ut4.dgn



NOTE: TEMPORARY CONSTRUCTION EASEMENT TO BE SECURED BY THE CITY OF ST. CHARLES

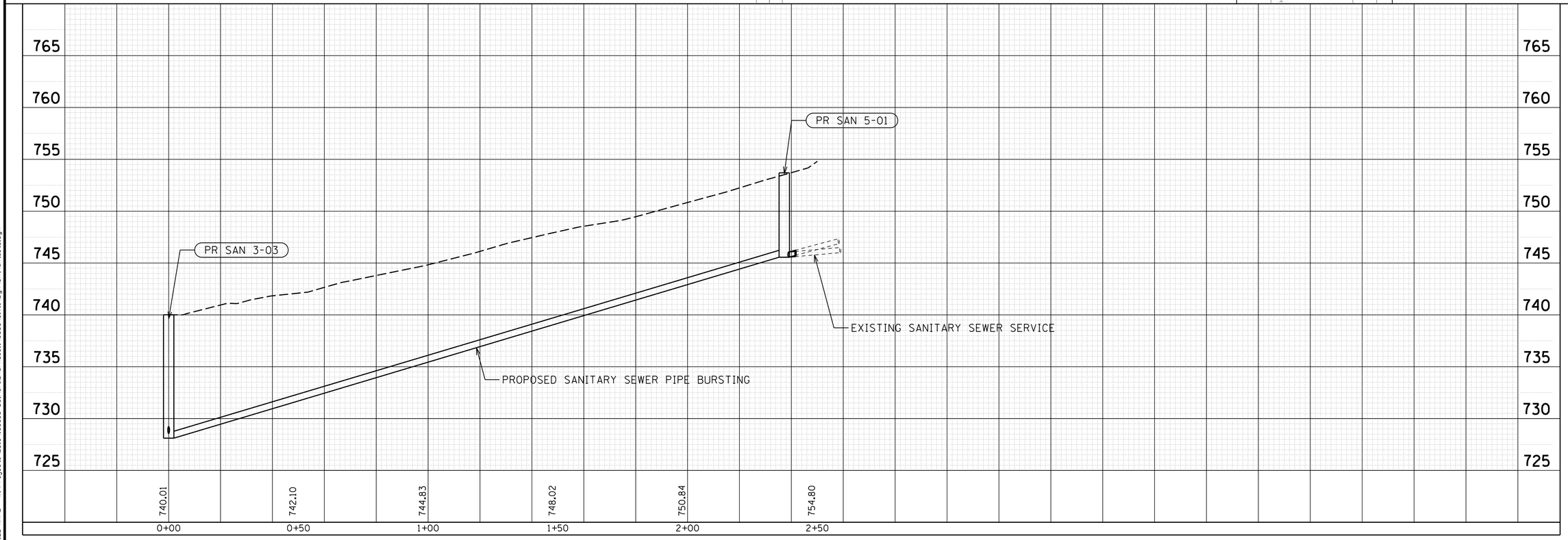


EXISTING UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX SAN 5-01	MANHOLE	4	753.61				745.56	TO BE REMOVED

PROPOSED UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				Sta.	Offset
				NORTH	SOUTH	EAST	WEST		
PR SAN 5-01	MANHOLE	4	753.70				745.56	2+37.27	0.00



N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

UTILITY PLAN & PROFILES N 2ND AVENUE

DSGN.	JLB
DWN.	JLB
CHKD.	VDP
SCALE : AS SHOWN	

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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3		
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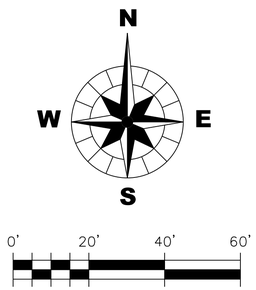
8		

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

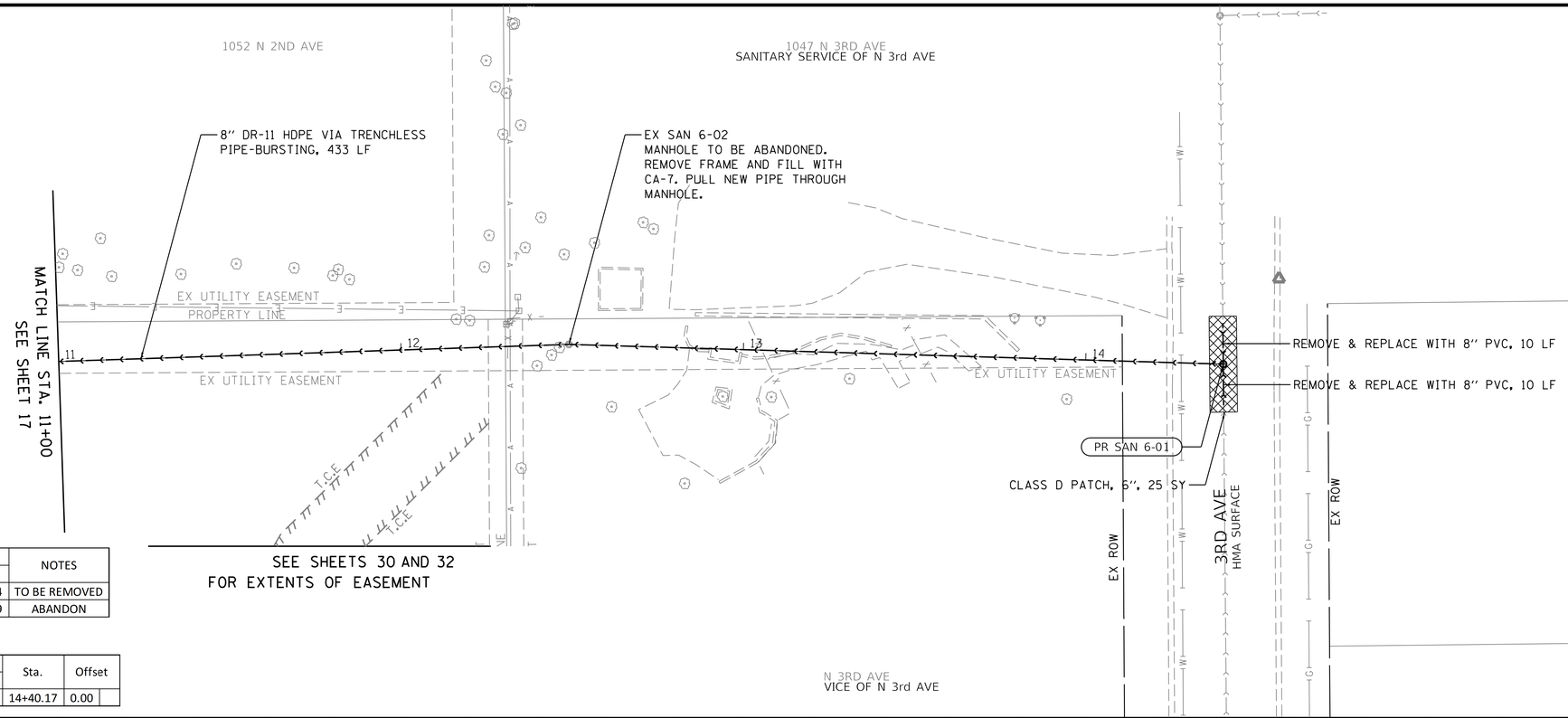
WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **UT5**
SHEET
18 OF 52

PLOT DATE = 3/5/2020
USER NAME = wbkengineering
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_ut5.dgn



NOTE: TEMPORARY CONSTRUCTION EASEMENT TO BE SECURED BY THE CITY OF ST. CHARLES

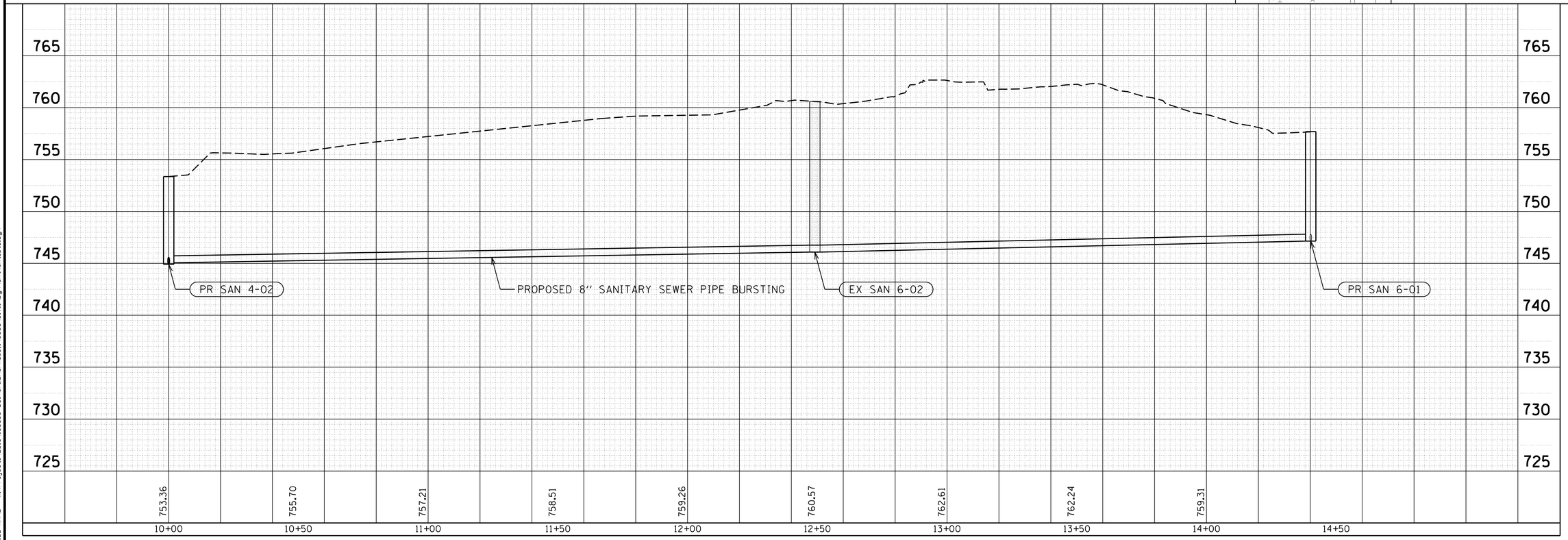


EXISTING UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				NOTES
				NORTH	SOUTH	EAST	WEST	
EX SAN 6-01	MANHOLE	4	757.69	747.14	747.14		747.14	TO BE REMOVED
EX SAN 6-02	MANHOLE	4	760.60			746.09	746.09	ABANDON

PROPOSED UTILITY SCHEDULES

ID	STRUCTURE TYPE	STRUCTURE DIAMETER (FT)	RIM	INVERT				Sta.	Offset
				NORTH	SOUTH	EAST	WEST		
PR SAN 6-01	MANHOLE	4	757.70	747.14	747.14		747.14	14+40.17	0.00



N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

UTILITY PLAN & PROFILES N 2ND AVENUE

DSGN.	JLB
DWN.	JLB
CHKD.	VDP
SCALE : AS SHOWN	

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **UT6**
SHEET
19 OF 52

PLOT DATE = 3/5/2020
USER NAME = wbkadmin
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_ut6.dgn

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0' 20' 40' 60'

LEGEND

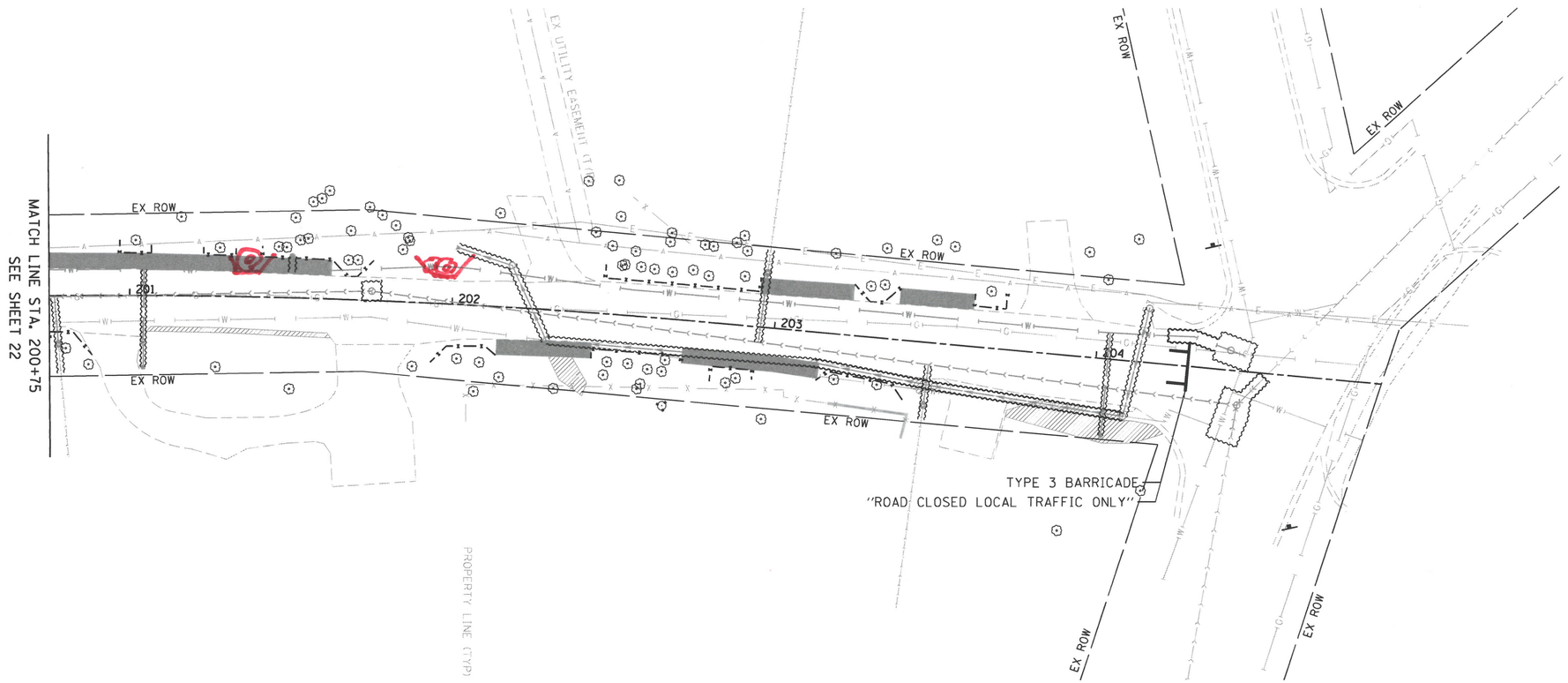
UTILITY EXCAVATIONS

TEMPORARY AGGREGATE WIDENING, 5' TYP
NOTE: TREES ARE TO BE PROTECTED WHILE PLACING AGG.
AGG SHALL NOT BE WITHIN 5' OF TREES TO REMAIN.

TEMPORARY FENCING

NOTES

TEMP AGG WIDENING TO BE INSTALLED PRIOR TO START OF ANY OTHER CONSTRUCTION ACTIVITIES EXCEPT EROSION CONTROL & TREE REMOVAL.



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

TRAFFIC CONTROL PLAN DELNOR AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **TC1**
SHEET
20 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwarner
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_tc1.dgn

LEGEND

UTILITY EXCAVATIONS

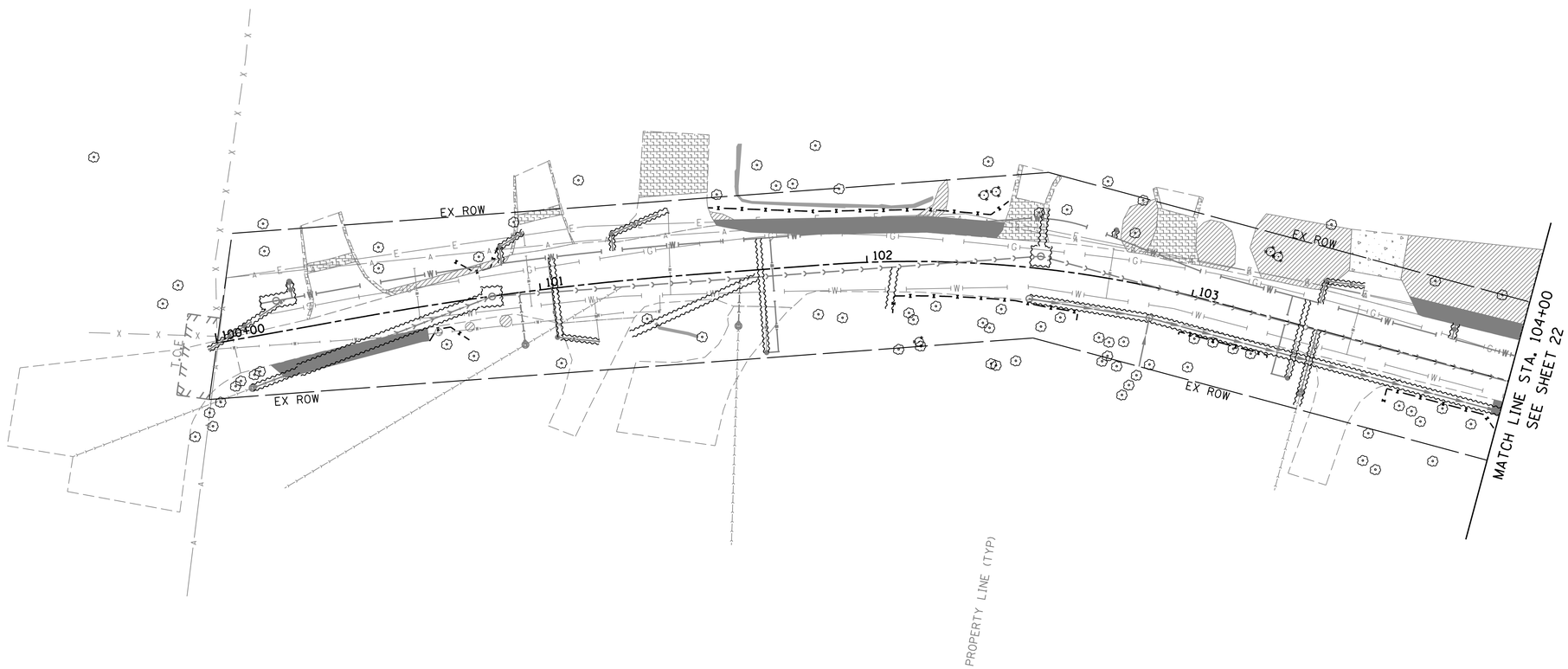
TEMPORARY AGGREGATE WIDENING, 5' TYP
NOTE: TREES ARE TO BE PROTECTED WHILE PLACING AGG.
AGG SHALL NOT BE WITHIN 5' OF TREES TO REMAIN.

TEMPORARY FENCING

NOTES

TEMP AGG WIDENING TO BE INSTALLED PRIOR TO START OF ANY OTHER CONSTRUCTION ACTIVITIES EXCEPT EROSION CONTROL & TREE REMOVAL.

0' 20' 40' 60'



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

TRAFFIC CONTROL PLAN N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **TC2**
SHEET
21 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwebster
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_tc2.dgn

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0' 20' 40' 60'

LEGEND

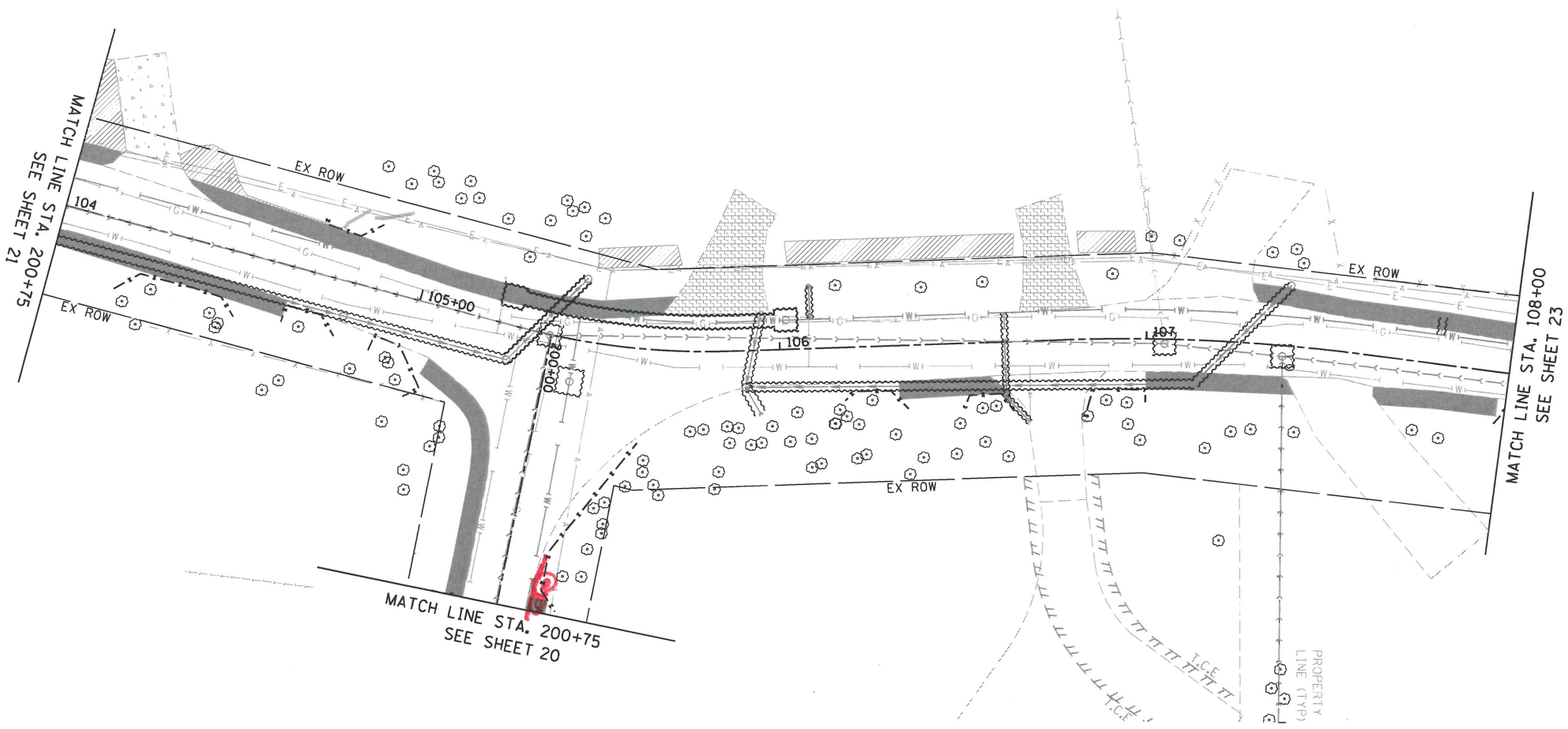
UTILITY EXCAVATIONS

TEMPORARY AGGREGATE WIDENING, 5' TYP
NOTE: TREES ARE TO BE PROTECTED WHILE PLACING AGG.
AGG SHALL NOT BE WITHIN 5' OF TREES TO REMAIN.

TEMPORARY FENCING

NOTES

TEMP AGG WIDENING TO BE INSTALLED PRIOR TO START OF ANY OTHER CONSTRUCTION ACTIVITIES EXCEPT EROSION CONTROL & TREE REMOVAL.



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

TRAFFIC CONTROL PLAN N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **TC3**
SHEET
22 OF 52

PLOT DATE : 3/5/2020
USER NAME : wbkadmin
FILE NAME : W:\Projects\2018\180305 Delnor&2ndPhase11\cadd\Civil\Dgn\Sht\sht_tc3.dgn

W
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E

0' 20' 40' 60'

LEGEND

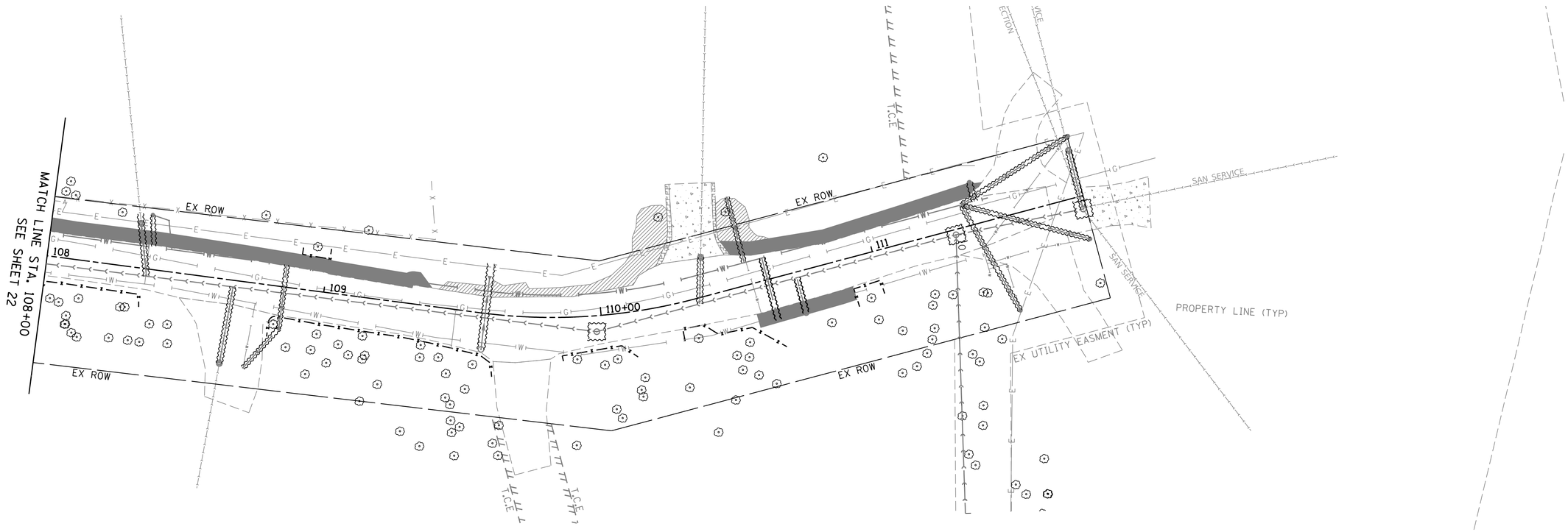
UTILITY EXCAVATIONS

TEMPORARY AGGREGATE WIDENING, 5' TYP
NOTE: TREES ARE TO BE PROTECTED WHILE PLACING AGG.
AGG SHALL NOT BE WITHIN 5' OF TREES TO REMAIN.

TEMPORARY FENCING

NOTES

TEMP AGG WIDENING TO BE INSTALLED PRIOR TO START OF ANY OTHER CONSTRUCTION ACTIVITIES EXCEPT EROSION CONTROL & TREE REMOVAL.



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

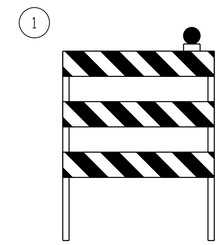
TRAFFIC CONTROL PLAN N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

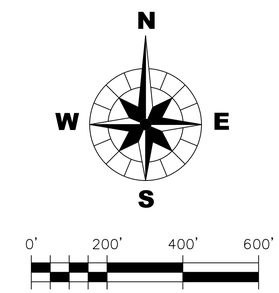
PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **TC4**
SHEET
23 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwalkenho
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_tc4.dgn



TYPE III BARRICADE

R11-4
60'' x 30''



1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENTIAL DRIVEWAYS LOCATED WITHIN THE CONSTRUCTION LIMITS AT ALL TIMES.
2. THE ENGINEER SHALL DETERMINE THE SPECIFIC NUMBER OF TYPE III BARRICADES REQUIRED TO SUFFICIENTLY BLOCK THRU TRAFFIC FROM ENTERING THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL PROVIDE AS MANY BARRICADES AS REQUESTED AT NO ADDITIONAL COST.
3. MULTIPLE SIGNS AT THE SAME LOCATION SHALL BE MOUNTED ON A SINGLE COMMON STEEL POST.
4. THE ENGINEER SHALL DETERMINE THE EXACT LOCATION AND SPACING OF SIGNS.
5. ADDITIONAL SIGNAGE MAY BE REQUESTED BY THE ENGINEER AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.
6. SIGNS AND BARRICADES SHALL BE MAINTAINED IN GOOD WORKING ORDER. ANY SIGN OR BARRICADE DEEMED TO BE IN UNSATISFACTORY CONDITION BY THE ENGINEER SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR WITHIN 24 HOURS.
7. ONLY SIGNS THAT ARE IN CURRENT USE SHALL BE VISIBLE TO THE MOTORING PUBLIC. SIGNS THAT ARE NOT IN CURRENT USE SHALL BE DROPPED TO THE GROUND, BAGGED, OR OTHERWISE REMOVED.
8. ALL ''ROAD CLOSED TO THRU TRAFFIC'' AND STREET NAME SIGNS SHALL HAVE BLACK TEXT ON A WHITE BACKGROUND.

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

TRAFFIC CONTROL PLAN EXTENDED

DSGN.	MDS	
DWN.	MDS	
CHKD.	VDP	
SCALE : AS SHOWN		

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **TC5**
SHEET
24 OF 52

PLOT DATE = 3/3/2020
USER NAME = mwebster
FILE NAME = W:\P-ojects\2018\180305 Delnor&2ndPhasell\cadd\Civil\Dgn\Sht\sht_tc5.dgn

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):
DELNOR & 2ND

THIS STORMWATER POLLUTION PREVENTION PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES. THE PERMIT IS ISSUED AND EFFECTIVE FROM AUGUST 3, 2018 AND IT EXPIRES ON JULY 31, 2023. THE PLAN CONSISTS OF THE SWPPP NARRATIVE AND NOTES, THE SWPPP PLAN SHEETS, INCLUDING ON AND OFF-SITE CONTROLS AND THE SWPPP DETAILS. THIS PLAN IS ONLY COMPLETE WHEN THE COMPONENT PARTS ARE INCLUDED.

1. **SITE DESCRIPTION:**
   A. THE WORK UNDER THIS CONTRACT WILL BE COMPLETED WITHIN THE RIGHT-OF-WAY FOR BOWES ROAD AND ALBERTA ROAD.
   B. THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF THE MAJOR ACTIVITIES WHICH WILL DISTURB SOIL FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE; SUCH AS EXCAVATION AND GRADING SEQUENCE OF THE CONSTRUCTION ACTIVITIES MAY BE AS FOLLOWS:
      a. CLEAR SITE AND INSTALL EROSION CONTROL MEASURES.
      b. REMOVE DEMOLITION ITEMS
      c. UNDERGROUND UTILITY WORK
      d. GRADE SITE AND PAVE ROADS.
      e. RESTORE REMAINING PORTIONS OF DISTURBANCE.
   C. THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 2.4 ACRES. THE TOTAL AREA OF THE SITE THAT IS ESTIMATED TO BE DISTURBED BY EXCAVATION, GRADING OR OTHER ACTIVITIES IS 1.3 ACRES.
   D. THE ESTIMATED RUNOFF COEFFICIENT FOR THE PROJECT IS 0.65 FOR EXISTING CONDITIONS AND 0.65 FOR THE PROPOSED PROJECT. INFORMATION DESCRIBING THE SOILS AT THE SITE IS CONTAINED IN THE SOILS REPORT FOR THE PROJECT, WHICH IS HEREBY INCORPORATED BY REFERENCE.
   E. THE SITE DRAINS BY OVERLAND FLOW AND STORM SEWER TO THE FOX RIVER.

2. **CONTROLS**
   THIS SECTION OF THE PLAN ADDRESSES THE VARIOUS CONTROLS THAT WILL BE IMPLEMENTED FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES DESCRIBED IN 1.B ABOVE. FOR EACH MEASURE DISCUSSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR ITS IMPLEMENTATION AS INDICATED. EACH CONTRACTOR HAS SIGNED THE REQUIRED CERTIFICATION ON FORMS WHICH ARE ATTACHED TO AND ARE A PART OF THIS PLAN. THE SOIL EROSION AND SEDIMENT CONTROL PLAN DRAWINGS INCLUDED, DEFINE THE SIZE AND LOCATION OF THE MEASURES TO BE INSTALLED DURING THE CONSTRUCTION OF THIS PROJECT.
   A. SOIL EROSION AND SEDIMENT CONTROLS
      a. STABILIZATION PRACTICES:
         PROVIDED BELOW IS A DESCRIPTION OF INTERIM AND PERMANENT STABILIZATION PRACTICES INCLUDING SITE-SPECIFIC SCHEDULING OF THE IMPLEMENTATION OF THE PRACTICES. SITE PLANS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. EXCEPT AS PROVIDED IN 2.A.i AND 2.B, STABILIZATION MEASURES SHALL BE INITIATED ON A DAILY BASIS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, OR ON ALL DISTURBED PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, OR ON ALL DISTURBED OR MORE CALENDAR DAYS. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE THEREAFTER. DESCRIPTION OF STABILIZATION PRACTICES:
         - DUST CONTROL WILL BE ACCOMPLISHED USING WATERING TRUCKS AS DIRECTED BY THE ENGINEER.
         - EROSION CONTROL BLANKET (TEMPORARY) AND ROLLED EXCELSIOR LOGS WILL BE USED TO STABILIZE THE CONSTRUCTION AREAS WHERE THE FINAL GRADE HAS BEEN REACHED BUT CANNOT BE PERMANENTLY STABILIZED DUE TO THE PLANTING SEASON RESTRICTIONS.
         - SHEET FLOWS EXITING THE SITE WILL ENCOUNTER PERIMETER EROSION BARRIER.
         - STABILIZED CONSTRUCTION ENTRANCES WILL BE CONSTRUCTED AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC ENTERS OR EXISTS THE SITE.
         - STOCKPILES THAT ARE TO REMAIN IN PLACE FOR MORE THAN THREE DAYS SHALL HAVE SOIL EROSION AND SEDIMENT CONTROL PROVIDED. AT A MINIMUM, PERIMETER EROSION BARRIER WILL BE PLACED AROUND THE BOTTOM OF THE STOCKPILE.
         - STOCKPILES THAT ARE TO REMAIN FOR MORE THAN 14 CALENDAR DAYS SHALL RECEIVE TEMPORARY SEED.
      b. STRUCTURAL PRACTICES:
         PROVIDED BELOW IS A DESCRIPTION OF STRUCTURAL PRACTICES THAT WILL BE IMPLEMENTED, TO THE DEGREE ATTAINABLE, TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.
         -
   B. STORM WATER MANAGEMENT
      PROVIDED BELOW IS A DESCRIPTION OF MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL THE POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER THE CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.
      a. THE PRACTICES SELECTED FOR IMPLEMENTATION WERE DETERMINED ON THE BASIS OF TECHNICAL GUIDANCE CONTAINED IN THE IEPA'S ILLINOIS URBAN MANUAL AND OTHER ORDINANCES LISTED IN THE SPECIFICATIONS. THE STORM WATER POLLUTANT CONTROL MEASURES SHALL INCLUDE:
         - SILT FENCE
         - INLET PROTECTION
      b. VELOCITY DISSIPATION DEVICES WILL BE PLACED AT DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL AS NECESSARY TO PROVIDE A NON-EROSIVE VELOCITY FLOW FROM THE STRUCTURE TO A WATER COURSE SO THAT THE NATURAL, PHYSICAL, AND BIOLOGICAL CHARACTERISTICS AND FUNCTIONS ARE MAINTAINED AND PROTECTED (I.E., MAINTENANCE OF HYDROLOGIC CONDITIONS, SUCH AS THE HYDROPERIOD AND HYDRODYNAMICS PRESENT PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES). STORM WATER MANAGEMENT CONTROL INCLUDES:
         - SILT FENCE
         - LINED APRON
         - ROCK CHECK DAMS
   C. OTHER CONTROLS
      a. NON HAZARDOUS WASTE DISPOSAL: THE SOLID WASTE MATERIALS INCLUDING TRASH, CONSTRUCTION DEBRIS, EXCESS CONSTRUCTION MATERIALS, MACHINERY, TOOLS AND OTHER ITEMS WILL BE COLLECTED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ACQUIRE ANY PERMIT REQUIRED FOR SUCH DISPOSAL. BURNING ON-SITE WILL NOT BE PERMITTED. NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS SHALL BE DISCHARGED INTO WATERS OF THE U.S., EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
      b. HAZARDOUS WASTE DISPOSAL: SHALL CONFORM TO THE IDOT SPECIAL PROVISION.
      c. SANITARY WASTE DISPOSAL: THE PROVISIONS OF THIS PLAN SHALL ENSURE AND DEMONSTRATE COMPLIANCE WITH THE APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEM REGULATIONS. THE CONTRACTOR SHALL NOT CREATE OR ALLOW UNSANITARY CONDITIONS. SEPARATE AUTHORIZATION IS REQUIRED FOR INSTALLATION OF SANITARY SEWER OR SEPTIC SYSTEMS.
      d. OFF-SITE VEHICLE TRACKING: EACH SITE SHALL HAVE ONE OR MORE STABILIZED CONSTRUCTION ENTRANCES IN CONFORMANCE WITH THE PLAN DETAILS. WHERE THE CONTRACTOR'S EQUIPMENT IS OPERATED ON ANY PORTION OF THE TRAVELED SURFACE OR STRUCTURES USED BY TRAFFIC ON OR ADJACENT TO THE PROJECT, THE CONTRACTOR SHALL CLEAN (NOT FLUSHING OF) THE TRAVELED SURFACE OF ALL DIRT AND DEBRIS AT THE END OF EACH DAY'S OPERATIONS OR MORE FREQUENTLY IF DIRECTED BY THE ENGINEER.
      e. DEWATERING DEVICES: IF DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM SOIL EROSION. ALL PUMPED DISCHARGES SHALL BE ROUTED THROUGH A SUMP PIT INTO A SETTLEMENT BASIN. ALL SUMPED DISCHARGES TO WATERS OF THE US SHALL BE PERMITTED BY THE USACE.
      f. SITE CLEANUP: TRAPPED SEDIMENT AND OTHER DISTURBED SOILS RESULTING FROM THE DISPOSITION OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER SOIL EROSION AND SEDIMENTATION.
   D. APPROVED COUNTY, STATE OF LOCAL PLANS:
      THE MANAGEMENT PRACTICES, CONTROLS, AND OTHER PROVISIONS CONTAINED IN THIS PLAN ARE AT LEAST AS PROTECTIVE AS THE REQUIREMENTS CONTAINED IN THE CURRENT VERSION OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S *ILLINOIS URBAN MANUAL STANDARDS AND SPECIFICATIONS*. PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS SHALL BE DESCRIBED OR INCORPORATED BY REFERENCE BELOW. REQUIREMENTS SPECIFIED IN SOIL EROSION AND SEDIMENT CONTROL PLANS, SITE PERMITS, STORM WATER MANAGEMENT SITE PLANS, OR SITE PERMITS APPROVED BY COUNTY, STATE, OR LOCAL OFFICIALS THAT ARE APPLICABLE TO PROTECTING SURFACE WATER RESOURCES ARE, UPON SUBMITTAL OF A NOTICE OF INTENT (NOI), INCORPORATED AND ENFORCEABLE UNDER THIS PERMIT EVEN IF THEY ARE NOT SPECIFICALLY INCLUDED IN THE PLAN. THE SOIL EROSION AND SEDIMENT CONTROL FOR THIS SITE MUST MEET THE REQUIREMENTS OF THE FOLLOWING AGENCIES:

      CITY OF ST. CHARLES

3. **MAINTENANCE:**
   THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT WILL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, SOIL EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN AND STANDARD SPECIFICATIONS:
   THE CONTRACTOR WILL ASSIGN A SOIL EROSION AND SEDIMENT CONTROL MANAGER (SESCM) TO THE PROJECT. HIS DUTIES WILL BE TO SUPERVISE THE MAINTENANCE OF THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AND IMPLEMENTATION OF THIS PLAN.

   THE FOLLOWING SHALL BE THE MINIMUM MAINTENANCE REQUIRED:

   A. VEGETATIVE SOIL EROSION MEASURES - THE VEGETATIVE GROWTH OF TEMPORARY AND PERMANENT SEEDING, VEGETATIVE FILTERS, ETC., SHALL BE MAINTAINED PERIODICALLY AND SUPPLIED ADEQUATE WATERING AND FERTILIZER. THE VEGETATIVE COVER SHALL BE REMOVED AND RESEEDED AS NECESSARY.
   B. WATER TREATMENT SYSTEM WILL BE CLEANED AND ITEMS REPLACED AS RECOMMENDED BY THE DESIGNER OF THE SYSTEM. SEDIMENT ACCUMULATION WILL BE REMOVED AT A MINIMUM WHEN THE HEIGHT IS EQUAL TO 50% OF THE HEIGHT OF THE BAFFLE OR CURTAIN.
   C. PERIMETER EROSION BARRIER AND ROLLED EXCELSIOR LOGS WILL BE EXAMINED REGULARLY AND REPAIRED AS NECESSARY. SEDIMENT SHALL BE REMOVED WHEN IT REACHES A HEIGHT EQUAL TO 50% OF THE HEIGHT OF THE BARRIER.
   D. STABILIZED ACCESS ROAD AND STABILIZED CONSTRUCTION ENTRANCES SHALL HAVE SEDIMENT BUILD UP REMOVED AS NECESSARY.

4. **INSPECTIONS**
   THE ENGINEER WILL BE RESPONSIBLE FOR CONDUCTING SOIL EROSION AND SEDIMENT CONTROL INSPECTIONS. THE CONTRACTOR'S SESCM SHALL BE NOTIFIED WHEN THE INSPECTIONS ARE TO TAKE PLACE AND IS EXPECTED TO BE PRESENT DURING THE INSPECTIONS. A MAINTENANCE INSPECTION REPORT WILL BE COMPLETED AFTER EACH INSPECTION. A COPY OF THE REPORT IS TO BE COMPLETED BY THE INSPECTOR AND STORED ON-SITE WITH A COPY GIVEN TO THE CONTRACTOR. THE INSPECTION SHALL INCLUDE ALL DISTURBED AREAS OF THE CONSTRUCTION SITE WHICH HAVE NOT BEEN FINALLY STABILIZED, THE STRUCTURAL CONTROL MEASURES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND ALL MAJOR OUTFALLS. SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN STORM (OR EQUIVALENT SNOWFALL) THAT IS 0.5 INCHES OR GREATER. DEPTH OF RAIN FALL WILL BE DETERMINED BY AN ON-SITE RAIN GAUGE. THE ENGINEER SHALL READ THE RAIN GAUGE DAILY AND AFTER EACH RAIN STORM.
   A. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAIN AGE SYSTEM AND WATERWAYS. SOIL EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. IF REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF THE COMPLETION OF THE INSPECTION REPORT. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER THE MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE TRACKING.
   B. BASED ON THE RESULTS OF THE INSPECTION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED IN SECTION 1 ABOVE AND POLLUTION PREVENTION MEASURES IDENTIFIED IN SECTION 2 ABOVE, THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE REVISED AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. ANY CHANGES TO THIS PLAN RESULTING FROM THE REQUIRED INSPECTION SHALL BE IMPLEMENTED WITHIN SEVEN CALENDAR DAYS FOLLOWING THE INSPECTION.
   C. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN, AND ACTION TAKEN IN ACCORDANCE WITH SECTION 4.B SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G OF THE GENERAL PERMIT.
   D. IF ANY VIOLATIONS OF THE PROVISIONS OF THIS PLAN ARE IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE ENGINEER SHALL COMPLETE AND FILE AN "INCIDENCE OF NONCOMPLIANCE" (ION) REPORT FOR THE IDENTIFIED VIOLATION. THE ENGINEER SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ABOUT THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE. THE IEPA MUST BE NOTIFIED BY PHONE, FAX, OR E-MAIL WITHIN 24 HOURS OF THE DISCOVERY OF THE NONCOMPLIANCE ACTION. THE ION REPORT MUST BE FILED WITHIN 5 DAYS OF THE INCIDENT. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI.G OF THE GENERAL PERMIT. THE REPORT OF NONCOMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:

   ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
   DIVISION OF WATER POLLUTION CONTROL
   1021 NORTH GRAND EAST
   P.O. BOX 19276
   SPRINGFIELD, IL 62794-9276
   epa.swnoncomp@illinois.gov

5. **NON-STORM WATER DISCHARGES:**
   EXCEPT FOR THE FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON-STORM WATER THAT MAY BE COMBINED WITH STORM WATER DISCHARGES ARE TREATED BY THE MEASURES INCLUDED IN THESE PLANS. THESE SOURCES INCLUDE THE FOLLOWING:
   - WATER USED TO WASH VEHICLES
   - WATER USED TO CONTROL DUST
   - PAVEMENT WASH WATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS SPILLED MATERIALS HAVE BEEN REMOVED)
   - IRRIGATION DITCHES
   - UNCONTAMINATED GROUND WATER FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS

6. **INVENTORY FOR POLLUTION PREVENTION PLAN:**
   THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ON SITE DURING CONSTRUCTION. *(TABLE TO BE FILLED IN BY CONTRACTOR)*

7. **SPILL PREVENTION - MATERIAL MANAGEMENT PRACTICES:**
   THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE HE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF.

   GOOD HOUSEKEEPING:
   THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:
   - AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCTS REQUIRED TO DO THE JOB.
   - ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
   - PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
   - SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
   - THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON SITE.
   - WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
   - MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

   HAZARDOUS PRODUCTS:
   THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
   - PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
   - ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED.
   - IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

   SPILL CONTROL PRACTICES:
   IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
   - MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
   - MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
   - ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
   - THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH HAZARDOUS SUBSTANCES.

8. **SOIL EROSION AND SEDIMENT CONTROL NOTES:**
   A. THE CONTRACTOR SHALL TEMPORARILY STABILIZE THE WORK AREA AT THE END OF EACH WORK DAY.
   B. ALL MATERIALS SHALL BE REMOVED FROM THE FLOODPLAIN AT THE END OF EACH WORK DAY. NO OVERNIGHT STORAGE OF MATERIALS IN THE FLOODPLAIN SHALL BE ALLOWED.
   C. ALL DEWATERING ACTIVITIES, MEANS, AND METHODS MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION MAY COMMENCE.
   D. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL (LATEST EDITION).
   E. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
   F. A SUPPLEMENTAL EROSION AND SEDIMENT CONTROL PLAN SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN THOSE ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS).
   G. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CITY.
   H. DURING DEWATERING OPERATIONS, ALL DISCHARGE SHALL BE FILTERED AND/OR PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING SEDIMENT-LADEN WATER DIRECTLY INTO STREAMS, WETLANDS, FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
   I. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THE PROJECT OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THIS EROSION AND SEDIMENT CONTROL PLAN AND TO ASSURE COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
   J. ALL DROP INLETS ON AND ADJACENT TO THE SITE MUST HAVE A SEDIMENT TRAPPING OR CONTAINMENT DEVICE INSTALLED DURING CONSTRUCTION ACTIVITIES.
   K. ALL ADJACENT STREETS SHALL BE INSPECTED DAILY FOR DIRT AND DEBRIS AND CLEANED WHEN NECESSARY.
   L. THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL. ALL OPEN AREAS THAT ARE TO REMAIN IDLE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET AND HEAVY MULCHING.
   M. ALL EROSION CONTROL MEASURES MUST BE INSPECTED EVERY 7 CALENDAR DAYS AND AFTER EACH ½" RAINFALL EVENT.

9. **ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES:**
   A. THE SITE STABILIZATION SHALL BE PERFORMED AS THE EXCAVATION PROCEEDS TO THE EXTENT CONSIDERED DESIRABLE AND PRACTICAL. PERMANENT SEEDING SHALL BE USED WHENEVER POSSIBLE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.
   B. UNLESS OTHERWISE INDICATED, ALL DISTURBED AREAS SHALL BE COVERED IN AN ACCEPTABLE OR APPROVED TYPE OF PERMANENT SEEDING.
   C. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY CONCRETE WASHOUTS IN ORDER TO CONTAIN ALL CONCRETE WASTE MATERIAL. THE CONTRACTOR SHALL BE RESOPNSIBLE FOR DETERMINING CONCRETE WASHOUT LOCATIONS AND SHALL MARK SUCH LOCATIONS ONTO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). AT NO TIME SHALL THE DUMPING OF CONCRETE WASHOUT MATERIAL ONTO THE SITE BE ALLOWED. ALL CONCRETE WASHOUT MATERIAL (LIQUID AND HARDENED WASTE) SHALL BE DISPOSED OF PROPERLY.

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

STORMWATER POLLUTION PREVENTION PLAN

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : NOT TO SCALE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **SW1**
SHEET
25 OF 52

PLOT DATE = 3/5/2020
USER NAME = vincedeno
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht.swdgn

CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	KEY	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERM.
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	X	TS	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	X	
	PERMANENT SEEDING	X	PS	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		X
	DORMANT SEEDING		DS	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.		
	SODDING		SO	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGEWAYS WHERE SEEDING MAY BE DIFFICULT.		
	PLANTS, TREES, & SHRUBS		GC	PROVIDES GROUND COVER, SHRUBS AND TREES IN ADDITION TO PERMANENT VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES.		
NON VEGETATIVE SOIL COVER	MULCHING		M	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED.		
	EROSION CONTROL BLANKET	X	EB	PROTECTS AND PRESERVES MOISTURE FOR PERMANENT SEEDING ON STEEP SLOPES, AREAS OF PERIODIC CONCENTRATED RUNOFF (DITCHES) OR IN AREAS THAT MAY BE DAMAGED BY PEDESTRIAN TRAFFIC.	X	
	AGGREGATE COVER		AG	PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.		
	PAVING	X	P	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		X
DIVERSIONS	RIDGE DIVERSION		RD	TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE.		
	CHANNEL DIVERSION		CD	TYPICALLY USED AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS NOT AVAILABLE.		
	COMBINATION DIVERSION		DC	TYPICALLY USED ANYWHERE ON A SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.		
	CURB AND GUTTER		CG	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		
	BENCHES		B	SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.		
	COFFERDAM		CD	STRUCTURAL DIVERSION OF WATER FOR CONSTRUCTION IN FLOWING WATER.		
WATERWAYS	BARE CHANNEL		BC	PROVIDES MEANS OF CONVEYING RUNOFF TO DESIRED LOCATION. MAY BE USED TO DRAIN DEPRESSIONAL AREAS. ONLY APPLICABLE WHEN VELOCITY OF FLOW IS VERY LOW.		
	STRUCTURAL STREAMBANK STABILIZATION		SSS	PROTECTS STREAMBANKS FROM EROSIVE FORCE OF FLOWING WATER.		
	VEGETATIVE CHANNEL	X	VC	PROVIDED ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.		X
	VEGETATIVE STREAMBANK STABILIZATION		VS	PROTECTS STREAMBANKS FROM EROSIVE FORCE OF FLOWING WATER AND PROVIDES NATURAL, PLEASING APPEARANCE.		
	LINED CHANNEL		LC	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.		
	DITCH CHECKS	X	SDC	USED IN DITCHES TO RETARD THE VELOCITY OF WATER IN A DITCH TO MINIMIZE SOIL EROSION PRIOR TO THE DITCH BEING VEGETATED.	X	
ENCLOSED DRAINAGE	STORM SEWER	X	ST	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		X
	UNDERDRAIN		UD	USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.		
SPILLWAYS	STRAIGHT PIPE SPILLWAY		SS	USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER.		
	DROP INLET SPILLWAY		DIS	SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		
	WEIR SPILLWAY		W	USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.		
	BOX INLET WEIR SPILLWAY		BS	SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.		
OUTLETS	LINED APRON		LA	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.		
SEDIMENT BASINS	EMBANKMENT SEDIMENT BASIN		ES	USED WHERE TOPOGRAPHY LENDS ITSELF TO CONSTRUCTING A DAM AND EARTH FILL IS AVAILABLE.		
	EXCAVATED SEDIMENT BASIN		XS	USED WHERE EMBANKMENT COULD CAUSE A HAZARD DOWNSTREAM IN CASE OF FAILURE AND WHEN EXCESS EARTH FILL IS NOT AVAILABLE.		
	COMBINATION SEDIMENT BASIN		CS	USED WHEN TOPOGRAPHY IS SUITABLE BUT ADDITIONAL CAPACITY IS NEEDED.		
SEDIMENT FILTERS	BARRIER FILTER		BF	USED TO FILTER SEDIMENT FROM RUNOFF.		
	VEGETATIVE FILTER		VF	USED ALONG DRAINAGEWAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.		
	FILTER FABRIC	X	FF	USED FOR ROADWAY CURB INLETS.	X	
	SILT FENCE	X	SF	USED ALONG DRAINAGE WAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF.	X	
	POLYMER TREATMENT		PT	TREATMENT OF WATER WITH ANIONIC POLYACRYLAMIDE TO CAUSE SEDIMENT FLOCCULATION AND DEPOSITION PRIOR TO DISCHARGE.		
MUD AND DUST CONTROL	STABILIZED CONST. ENTRANCE		SE	PREVENTS MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.		
	DUST AND TRAFFIC CONTROL	X	DT	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.	X	

CONSTRUCTION STAGING:
DELNOR & 2ND

PRE-CONSTRUCTION

INSTALL EROSION CONTROL MEASURES INCLUDING SILT FENCE, AND INLET FILTERS.

CONSTRUCTION

1. CLEAR VEGETATION AND DEBRIS
2. SANITARY AND WATER UTILITIES
3. REMOVE ROADWAY SURFACE.
4. INSTALL STORM SEWER AND DRIVEWAY CULVERT IMPROVEMENTS.
5. CONSTRUCT NEW ASPHALT PAVEMENT.
6. EXCAVATE, GRADE AND SHAPE NEW DITCHES.
7. RESTORE ALL AREAS OF DISTURBANCE WITH TOPSOIL, SEED, AND BLANKET.
8. REMOVE EROSION CONTROL MEASURES FROM THE SITE.

CONSTRUCTION STAGING NOTES:

THE CONTRACTOR WILL NOT BE ALLOWED TO CLEAR MORE THAN ONE STAGE AT A TIME. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COPMLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF THE STABILIZATION WORK IN AN AREA. PERMANENT SOIL STABILIZATION SHALL BE INSTALLED PRIOR TO STARTING THE NEXT STAGE OF CONSTRUCTION.

WINTER SHUT DOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER TO PROVIDE PROPER SOIL EROSION AND SEDIMENT CONTROL. ALL OPEN AREAS THAT ARE TO REMAIN IDLE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET, HEAVY MULCH, OR HYDRO MULCH.

SOIL PROTECTION SCHEDULE

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING				A		*	*					
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C				D					
MULCHING	E											→

A. IDOT SEED MIX CLASS 1A 180 LBS/ACRE

B. INCREASE SEEDING RATES BY 25% WHEN DORMANT SEEDING

C. SPRING OATS 100 LBS/ACRE

D. WHEAT OR CEREAL RYE 150 LBS/ACRE.

E. HYDRAULIC MULCH – 750 LBS AND 1000 GAL OF WATER PER ACRE

* IRRIGATION NEEDED DURING JUNE AND JULY.

INSPECTION AND MAINTENANCE TABLE

ACTIVITY	RESPONSIBLE PARTY	DURATION
MAINTENANCE OF STABILIZATION DURING CONSTRUCTION		DURING CONSTRUCTION AS NEEDED
OBSERVATION OF STABILIZATION DURING CONSTRUCTION		WEEKLY AND W/IN 24 HRS AFTER RAINFALL EVENT OF 0.5" OR GREATER
VEGETATION MAINTENANCE		1 YEAR FROM COMPLETION
VEGETATION AND STABILIZATION MAINTENANCE		ONGOING FROM PROJECT COMPLETION

CONTRACTOR CERTIFICATION

CONTRACTOR CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION"

GENERAL CONTRACTOR

SIGNATURE ______________________ TITLE ______ DATE ______

COMPANY ______________________

SUB-CONTRACTOR RESPONSIBLE FOR: ______________________

SIGNATURE ______________________ TITLE ______ DATE ______

COMPANY ______________________

WITNESSED BY OWNER

SIGNATURE ______________________ TITLE ______ DATE ______

COMPANY ______________________

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL GENERAL AND SPECIAL REQUIREMENTS, CONDITIONS, AND PROVISIONS OR ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS ISSUED FOR THIS PROJECT.

WBK ENGINEERING, LLC IS NOT RESPONSIBLE FOR IMPLEMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN, INCLUDING MAINTENANCE AND/OR REPAIR OF SOIL EROSION AND SEDIMENT CONTROL MEASURES, OR FOR COMPLIANCE OF THE CONTRACTORS (AND SUB-CONTRACTORS) WITH THE GENERAL NPDES PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

STORMWATER POLLUTION PREVENTION PLAN

DSGN.	JLB
DWN.	JLB
CHKD.	VDP
SCALE : NOT TO SCALE	

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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CLIENT : CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. SW2
SHEET

PLOT DATE : 3/5/2020
USER NAME : msudkamp
FILE NAME : W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_sw.dgn

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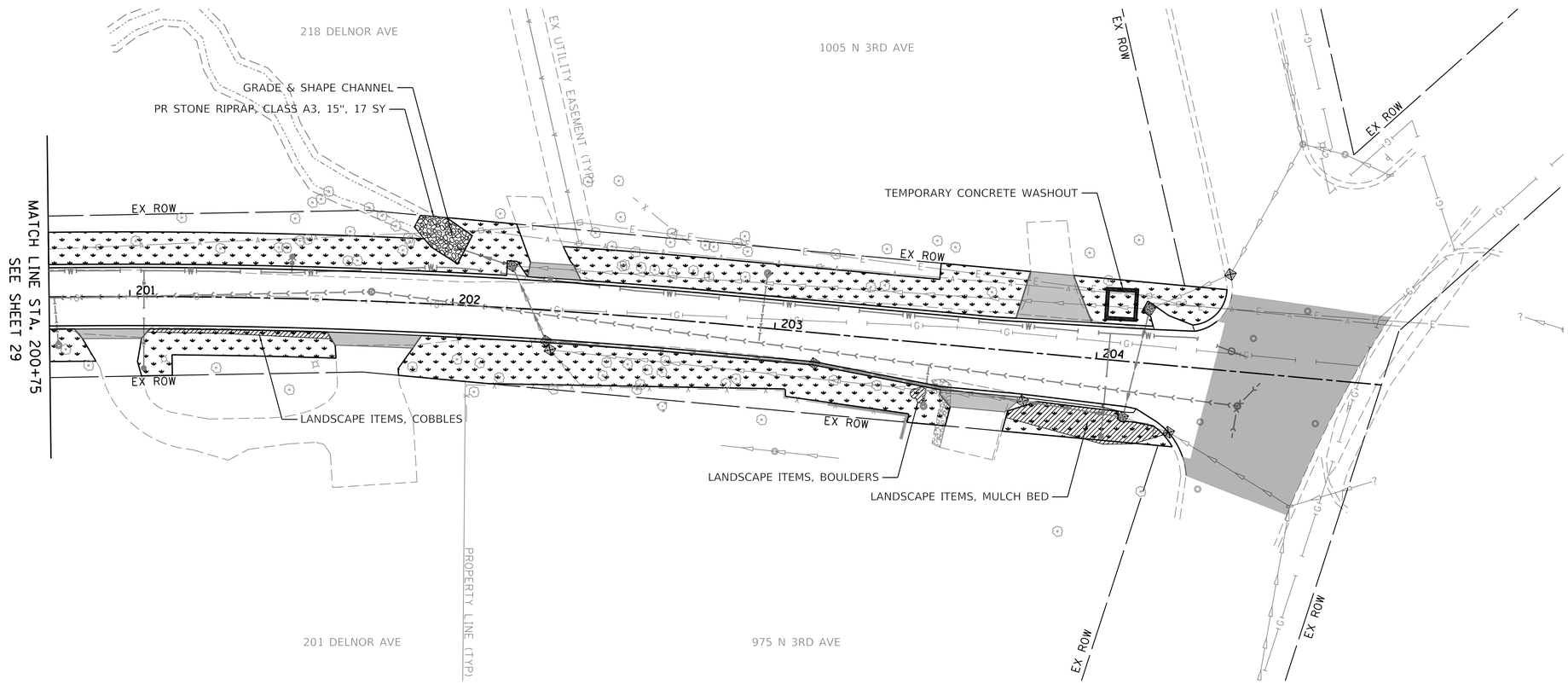
0' 20' 40' 60'

LEGEND

- PARKWAY RESTORATION
- PR STONE RIPRAP
- LANDSCAPED AREAS
- TEMPORARY EROSION BARRIER (SILT FENCE)
- INLET FILTER
- TEMPORARY CONCRETE WASHOUT

NOTES

1. ALL PARKWAY AREAS AND DISTURBED AREAS SHALL BE RESTORED WITH
   - -TOPSOIL, FURNISH & PLACE, 4"
   - -SEEDING, IDOT SEED MIX CLASS 1A
   - -EROSION CONTROL BLANKET
2. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

RESTORATION PLAN DELNOR AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **RP1**
SHEET
27 OF 52

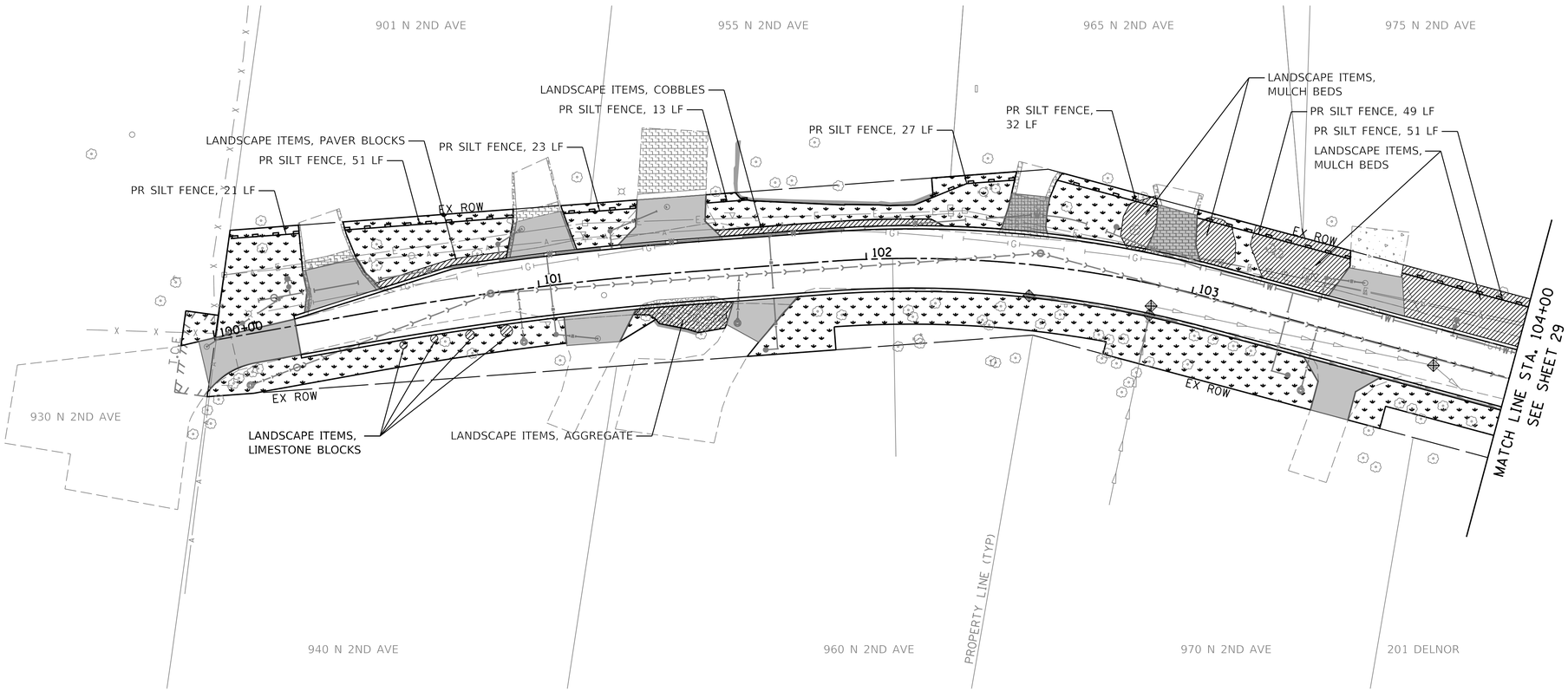
PLOT DATE = 3/5/2020
USER NAME = mwebster
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht-rp1.dgn

LEGEND

- PARKWAY RESTORATION
- PR STONE RIPRAP
- LANDSCAPED AREAS
- TEMPORARY EROSION BARRIER (SILT FENCE)
- INLET FILTER
- TEMPORARY CONCRETE WASHOUT

NOTES

1. ALL PARKWAY AREAS AND DISTURBED AREAS SHALL BE RESTORED WITH
   - -TOPSOIL, FURNISH & PLACE, 4"
   - -SEEDING, IDOT SEED MIX CLASS 1A
   - -EROSION CONTROL BLANKET
2. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

RESTORATION PLAN N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **RP2**
SHEET
28 OF 52

PLOT DATE = 3/5/2020
USER NAME = pwwilkens
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht-rp2.dgn

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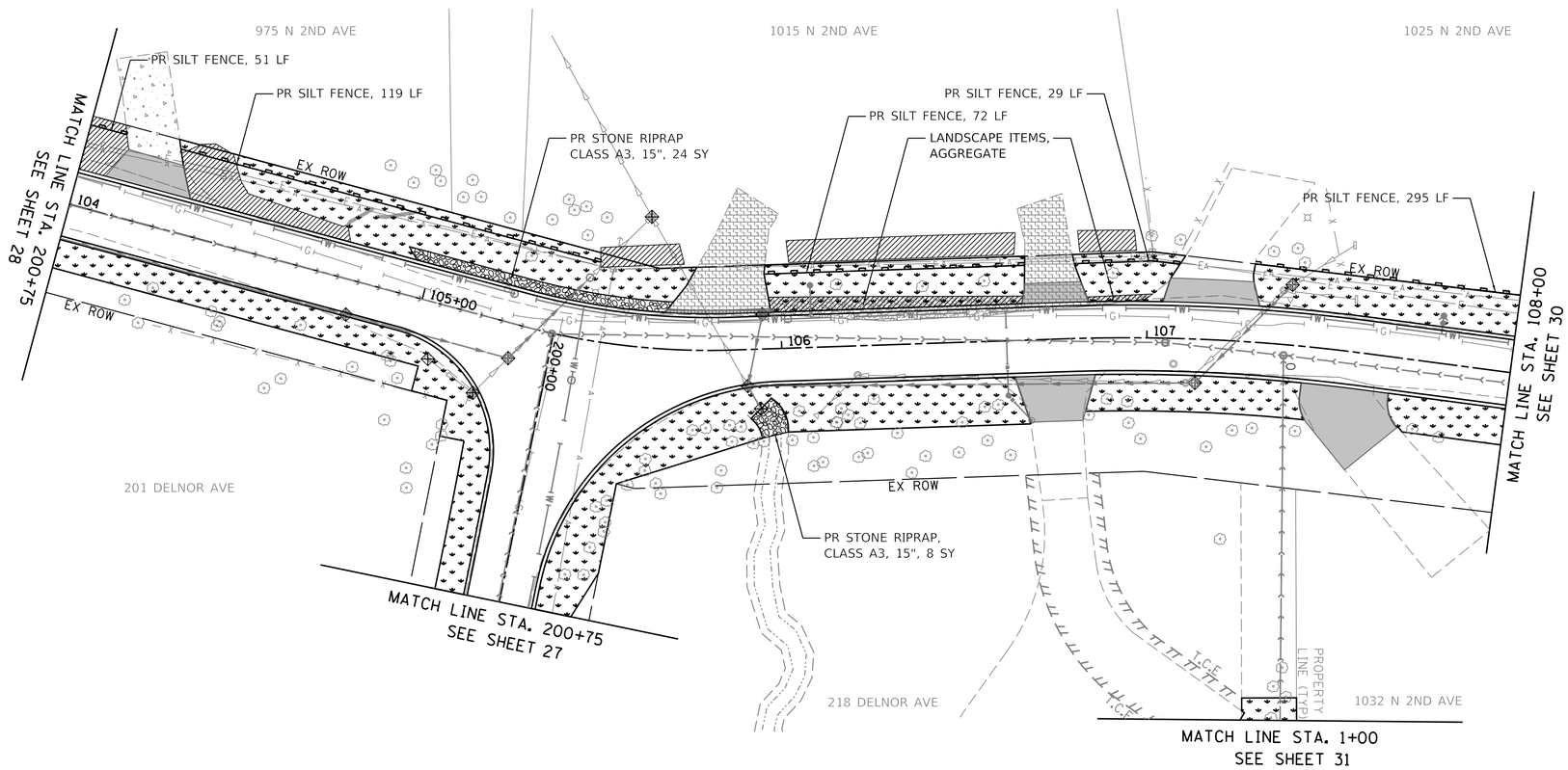
0' 20' 40' 60'

LEGEND

- PARKWAY RESTORATION
- PR STONE RIPRAP
- LANDSCAPED AREAS
- TEMPORARY EROSION BARRIER (SILT FENCE)
- INLET FILTER
- TEMPORARY CONCRETE WASHOUT

NOTES

1. ALL PARKWAY AREAS AND DISTURBED AREAS SHALL BE RESTORED WITH
   - -TOPSOIL, FURNISH & PLACE, 4"
   - -SEEDING, IDOT SEED MIX CLASS 1A
   - -EROSION CONTROL BLANKET
2. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

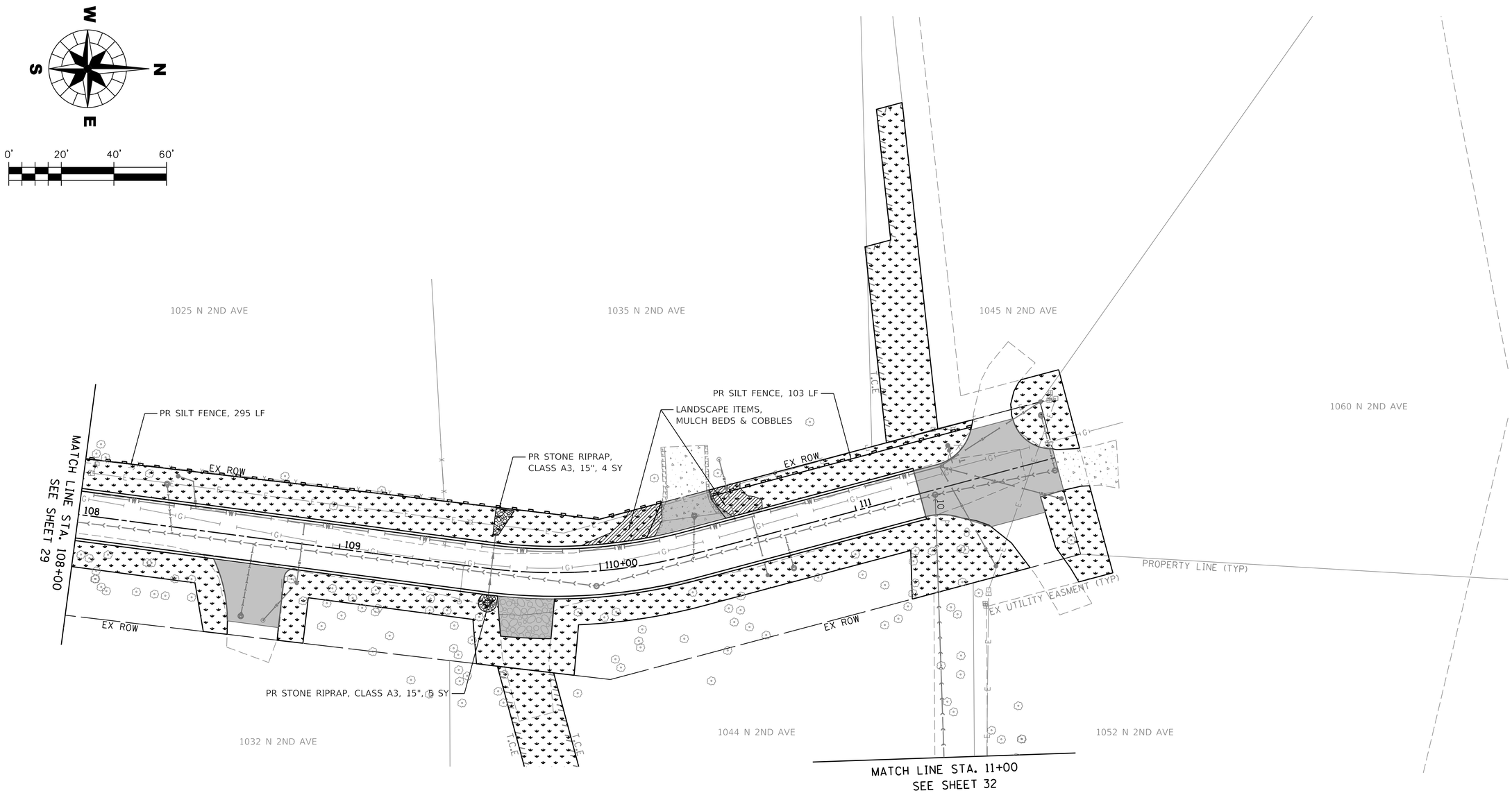
RESTORATION PLAN N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **RP3**
SHEET
29 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwebster
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhasell\cadd\Civil\Dgn\Sht\sht-rp3.dgn



LEGEND

- PARKWAY RESTORATION
- PR STONE RIPRAP
- LANDSCAPED AREAS
- TEMPORARY EROSION BARRIER (SILT FENCE)
- INLET FILTER
- TEMPORARY CONCRETE WASHOUT

NOTES

1. ALL PARKWAY AREAS AND DISTURBED AREAS SHALL BE RESTORED WITH
   - -TOPSOIL, FURNISH & PLACE, 4"
   - -SEEDING, IDOT SEED MIX CLASS 1A
   - -EROSION CONTROL BLANKET
2. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.

PLOT DATE = 3/5/2020
USER NAME = mwilkens
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_rp4.dgn

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

RESTORATION PLAN N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **RP4**
SHEET
30 OF 52

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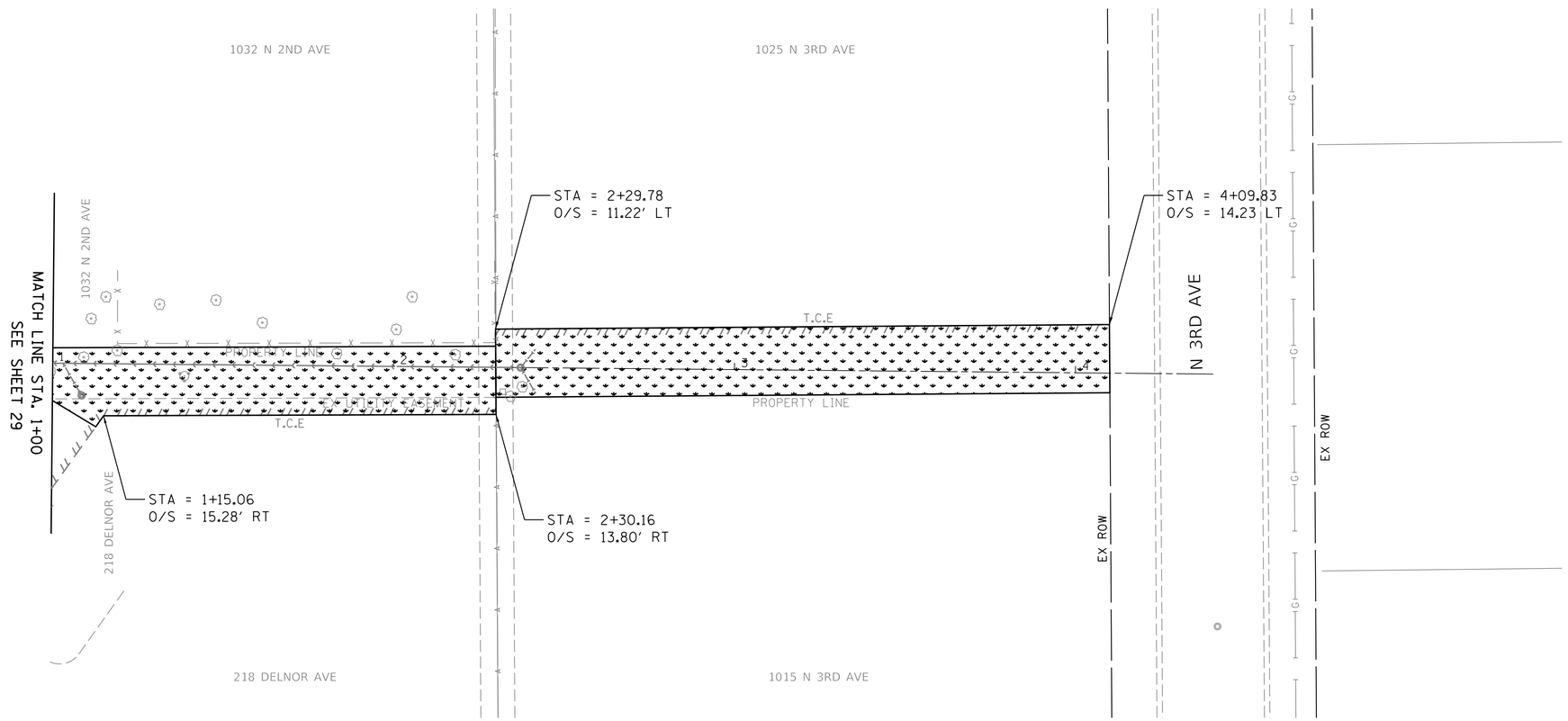
0' 20' 40' 60'

LEGEND

- PARKWAY RESTORATION
- PR STONE RIPRAP
- LANDSCAPED AREAS
- TEMPORARY EROSION BARRIER (SILT FENCE)
- INLET FILTER
- TEMPORARY CONCRETE WASHOUT

NOTES

1. ALL PARKWAY AREAS AND DISTURBED AREAS SHALL BE RESTORED WITH
   - -TOPSOIL, FURNISH & PLACE, 4"
   - -SEEDING, IDOT SEED MIX CLASS 1A
   - -EROSION CONTROL BLANKET
2. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

RESTORATION PLAN N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **RP5**
SHEET
31 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwebster
FILE NAME = W:\P-ojects\2018\180305 Delnor&2ndPhasell\cadd\Civil\Dgn\Sht\sht-rp5.dgn

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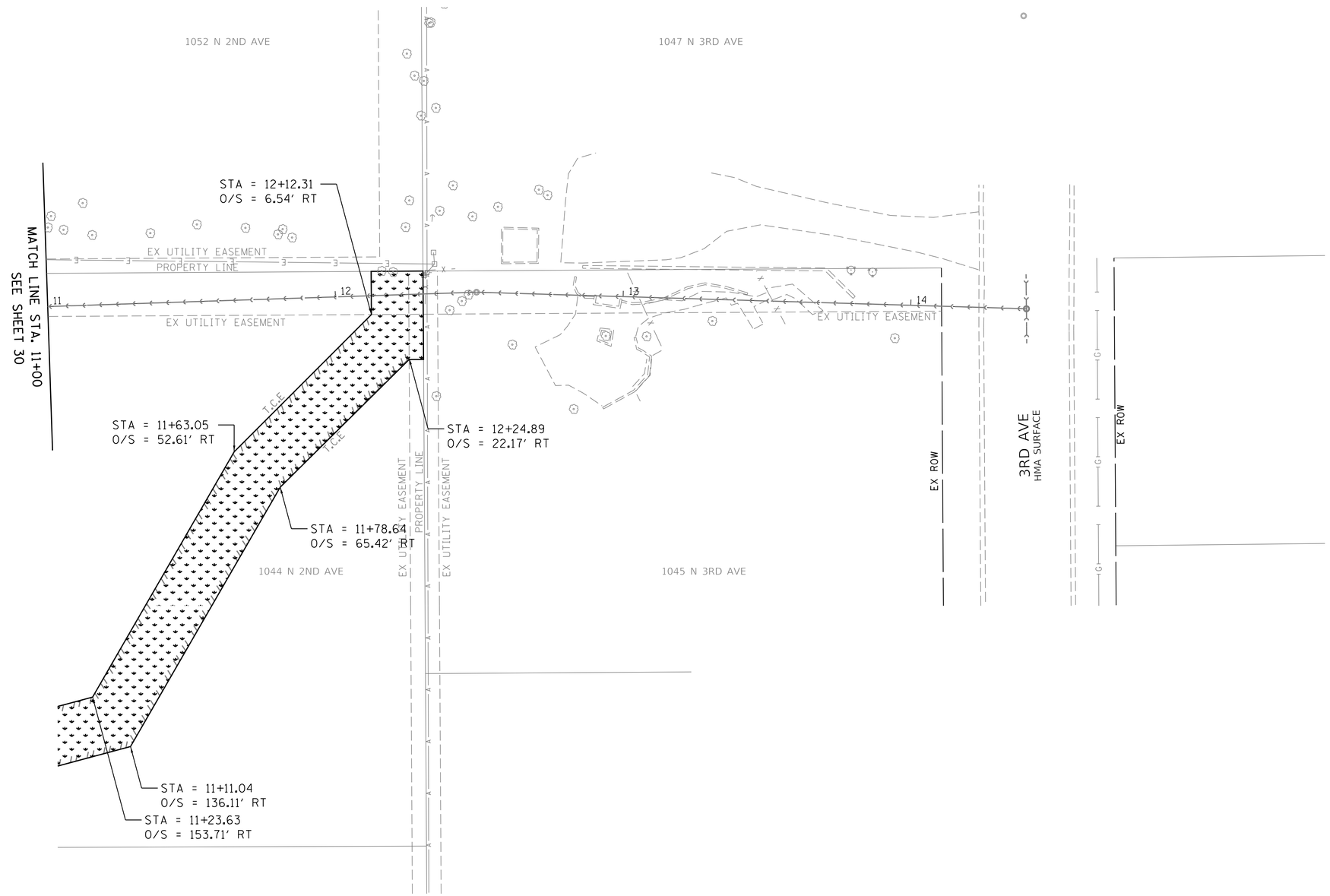
0' 20' 40' 60'

LEGEND

- PARKWAY RESTORATION
- PR STONE RIPRAP
- LANDSCAPED AREAS
- TEMPORARY EROSION BARRIER (SILT FENCE)
- INLET FILTER
- TEMPORARY CONCRETE WASHOUT

NOTES

1. ALL PARKWAY AREAS AND DISTURBED AREAS SHALL BE RESTORED WITH
   - -TOPSOIL, FURNISH & PLACE, 4"
   - -SEEDING, IDOT SEED MIX CLASS 1A
   - -EROSION CONTROL BLANKET
2. LANDSCAPED AREAS TO BE REPLACED/REINSTALLED PER SPECIAL PROVISIONS.



NO.	DATE	NATURE OF REVISION
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DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : AS SHOWN

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

RESTORATION PLAN N 2ND AVENUE

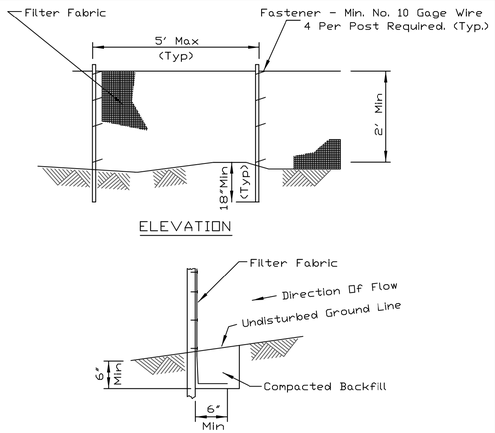
CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **RP6**
SHEET
32 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwoodson
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_rp6.dgn

SILT FENCE PLAN

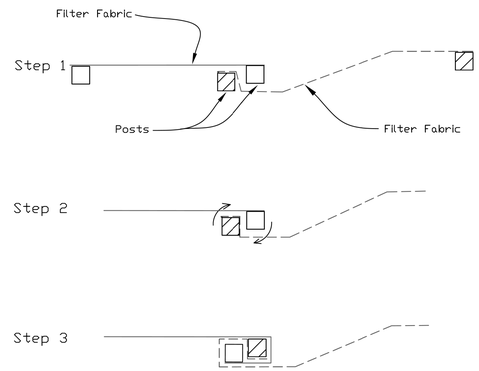


NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

STANDARD DWG. NO. IUM-620A
SHEET 1 OF 2
DATE 3-16-12

SILT FENCE - SPLICING TWO FENCES



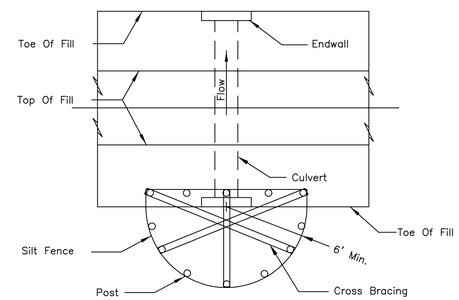
ATTACHING TWO SILT FENCES

1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Cut the fabric near the bottom of the stakes to accommodate the 6" flap.
4. Drive both posts a minimum of 18 inches into the ground and bury the flap.
5. Compact backfill (particularly at splices) completely to prevent stormwater piping.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

STANDARD DWG. NO. IUM-620B(W)
SHEET 1 OF 1
DATE 3-16-2012

CULVERT INLET PROTECTION - SILT FENCE



PLAN VIEW

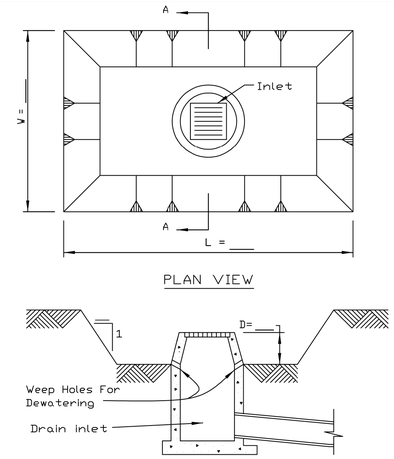
NOTES:
1. The silt fence shall meet the requirements as shown on standard drawing IL-620 SILT FENCE except the maximum post spacing shall be 3 feet and the tops of posts shall be cross braced.
2. Sediment shall be removed when the sediment has accumulated to one-half the height of the silt fence.
3. The maximum drainage area to the culvert being protected is 1 acre.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL-508SF
SHEET 1 OF 1
DATE 1-29-99

INLET PROTECTION - EXCAVATED DRAIN PLAN

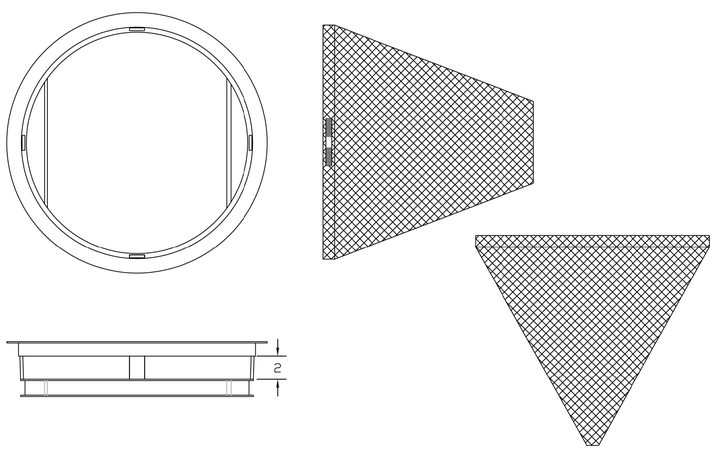


NOTES:
1. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
2. The sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
3. All cut slopes shall be 2:1 or flatter.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL-555
SHEET 1 OF 1
DATE 3-11-93

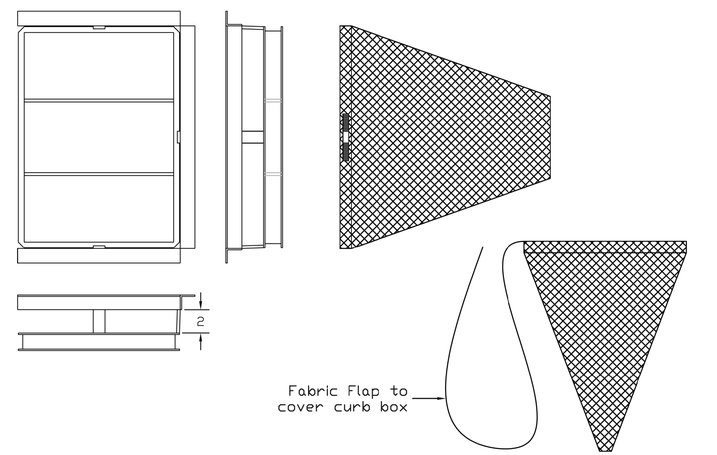


GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x¼" angle. Base rim fabricated from 1½"x½"x¼" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

DATE	REVISIONS
01-11-02	Original

Typical Round Catch-All

Marathon Materials, Inc.

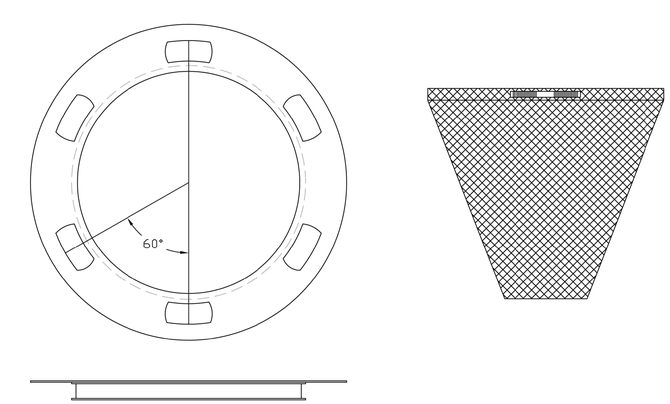


GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x¼" angle. Base rim fabricated from 1½"x½"x¼" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

DATE	REVISIONS
01-11-02	Original
05-07-04	Remove Back Rail

Typical Curb Box Catch-All

Marathon Materials, Inc.



GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x¼" angle. Base rim fabricated from 1½"x½"x¼" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

DATE	REVISIONS
01-22-02	Original

Typical Beehive Catch-All

Marathon Materials, Inc.

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : NOT TO SCALE

EROSION CONTROL DETAILS

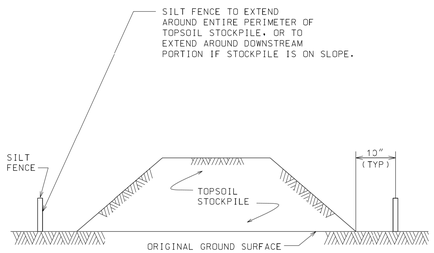
N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CLIENT : CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. EC1
SHEET
33 OF 52

PLOT DATE = 3/5/2020
USER NAME = wbkengineering
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_ec.dgn



NOTES:

1. AN ON-SITE DRAINAGE SWALE SHALL BE LOCATED BETWEEN THE TOPSOIL STOCKPILE AND OFF-SITE PROPERTY.
2. REFERENCE IS MADE TO THE SILT FENCE DETAIL FOR MATERIALS AND INSTALLATION METHODS.
3. IF THE STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS. IT SHALL BE STABILIZED WITH BURLAP MATTING OR SEEDED WITHIN 7 DAYS OF COMPLETION TO MINIMIZE EROSION.
4. INSPECTION OF SILT FENCES SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/2". REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. SEDIMENT TRAPPED BY THE FENCES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
6. SILT FENCES SHALL BE MAINTAINED IN PLACE UNTIL TOPSOIL STOCKPILE HAS BEEN ELIMINATED AND SHALL BE REMOVED ONLY WHEN DIRECTED BY THE CITY.

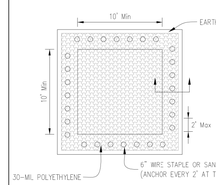
NOT TO SCALE

TEMPORARY TOPSOIL STOCKPILE DETAIL

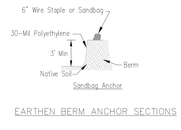
DATE: 3-31-09

F-3

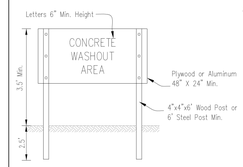
AUTOCAD2006



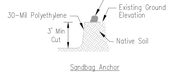
PLAN VIEW



EARTHEN BERM ANCHOR SECTIONS



SIGN DETAIL



SUBGRADE ANCHOR SECTIONS

NOTES:

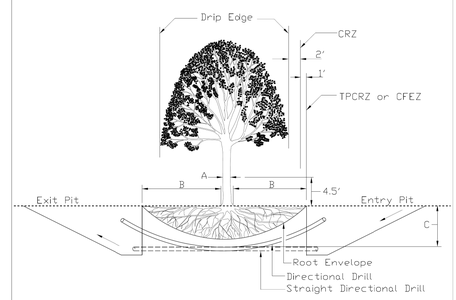
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

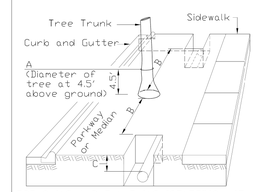
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS	
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS	
3			
4			
5			
6			
7			
8			
NO.	DATE	NATURE OF REVISION	

TEMPORARY CONCRETE WASHOUT FACILITY – EARTHEN TYPE

Designed ____ Date ____
Drawn E. JOHNSON 6/08
Checked ____
Approved ____

TREE ROOT PROTECTION FOR AUGERING PRACTICES





TRENCHING AND TUNNELING ISOMETRIC VIEW

AUGURING REQUIREMENTS

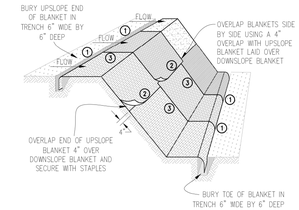
A	B	C
Tree Diameter (inches)	Distance of auguring from tree trunk- each side (feet)	Depth of augering (feet) *
1-4	3	2 1/2
5-9	5	3
10-14	10	3 1/2
15-19	12	3 1/2
20 OR MORE	15	4

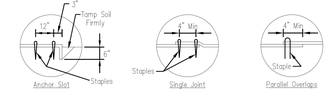
* dimension is from existing ground to the top of augering sleeve.

REFERENCE
Project ____
Designed ____ Date ____
Checked ____ Date ____
Approved ____ Date ____

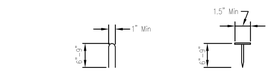
STANDARD DWG. NO.
IUM-690-D
SHEET 1 OF 2
DATE 09-14-2017

AUTOCAD2006





DETAIL 1 DETAIL 2 DETAIL 3



STAPLE DETAIL PUSH PIN DETAIL

NOTES:

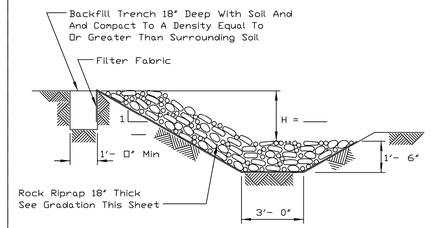
1. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 staples with non-stiched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

1	2/21/20	PER CITY OF ST. CHARLES COMMENTS	
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS	
3			
4			
5			
6			
7			
8			
NO.	DATE	NATURE OF REVISION	

EROSION CONTROL BLANKET INSTALLATION DETAILS

Designed ____ Date ____
Drawn E. JOHNSON 11/08
Checked ____
Approved ____

STRUCTURAL STREAMBANK STABILIZATION - RIPRAP



SECTION

NOTES:

1. The filter fabric shall meet the requirements in material specification 592 GEOTEXTILE ,Table 1 or 2, Class I, II or III .
2. The rock riprap shall meet the IDOT requirement for the following gradation: RR____ , Quality ____ .
3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

REFERENCE
Project ____
Designed ____ Date ____
Checked ____ Date ____
Approved ____ Date ____

NRCS
Natural Resources Conservation Service

STANDARD DWG. NO.
IL-640
SHEET 1 OF 1
DATE 3-3-95

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

EROSION CONTROL DETAILS

DSGN. MDS
DWN. MDS
CHKD. VDP
SCALE : NOT TO SCALE

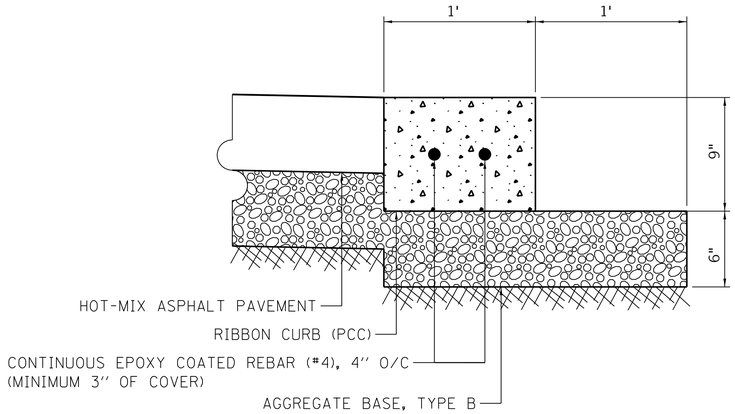
CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **EC2**
SHEET
34 OF 52

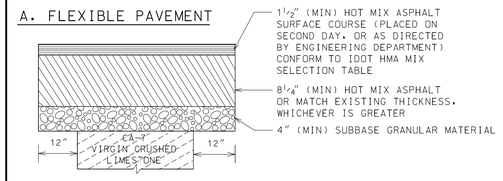
PLOT DATE = 3/5/2020
USER NAME = mwebber
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_ec.dgn

NOTE:
1. SAWCUT CONTRACTION JOINTS EVERY 15 FEET.
2. EXPANSION JOINTS FILLED WITH PJF EVERY 60 FEET.

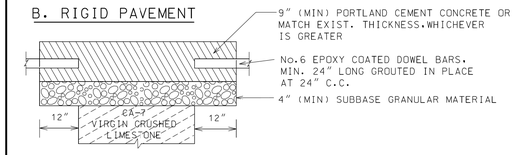


RIBBON CURB DETAIL

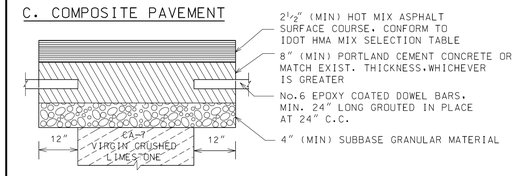
A. FLEXIBLE PAVEMENT



B. RIGID PAVEMENT



C. COMPOSITE PAVEMENT



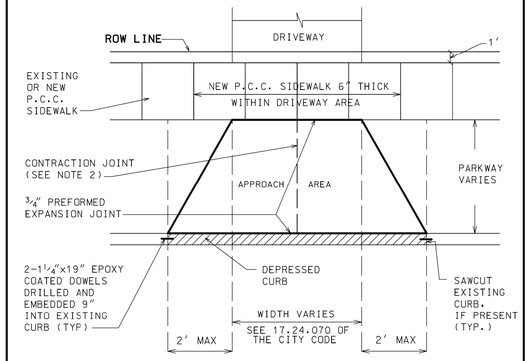
NOTE:
1. ALL PAVEMENT PATCHES SHALL BE SAWCUT FULL-DEPTH A MINIMUM OF ONE FOOT BEYOND THE LIMITS OF THE FAILED PAVEMENT IN ALL DIRECTIONS.
2. PORTLAND CEMENT CONCRETE SHALL CONFORM TO IDOT CLASS PP MIN. 3.500 PSI (6.1 BAG MIX) AT 14 DAYS. WITH 5 % TO 7 % AIR ENTRAINMENT.(NO FLY ASH ALLOWED)

NOT TO SCALE

PAVEMENT PATCH DETAIL

DATE: 12-8-10

D-3



NOTES:
1. FOR P.C.C. DRIVEWAY OVER AN UNDERGROUND UTILITY TRENCH. PLACE 6X6 - W2.9XW2.9 WELD AND WIRE FABRIC AT MID-DEPTH OF THE CONCRETE.
2. FOR CONCRETE APPROACH WIDER THAN 16'. A CONTRACTION JOINT SHALL BE LOCATED ALONG THE CENTERLINE.
3. P.C.C. CONCRETE DRIVEWAYS:
   APPROACH- 6" (MIN) PORTLAND CEMENT CONCRETE AND 4" (MIN) IDOT CA-6 CRUSHED STONE
   DRIVEWAY- 5"(MIN) PORTLAND CEMENT CONCRETE AND 4" (MIN) IDOT CA-6 CRUSHED STONE
4. BITUMINOUS DRIVEWAYS:
   APPROACH- 6" (MIN) IDOT CA-6 CRUSHED STONE AND 3" (MIN) BITUMINOUS CONCRETE
   DRIVEWAY- 4" (MIN) IDOT CA-6 CRUSHED STONE AND 3" (MIN) BITUMINOUS CONCRETE
5. BRICK PAVERS OR OTHER ARCHITECTURAL PAVING MATERIALS ARE NOT ALLOWED IN A DRIVEWAY APPROACH AREA WITHOUT A RIGHT OF WAY PERMIT AND A COVENANT RUNNING WITH THE LAND.
6. MAINTAIN FULL SIDEWALK WIDTH THROUGH DRIVEWAYS UNLESS DIRECTED OTHERWISE BY CITY ENGINEER.CURBING SHALL NOT RUN THROUGH SIDEWALK AREAS IN DRIVEWAYS.

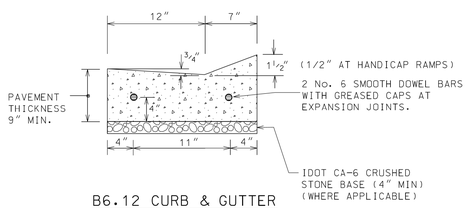
NOT TO SCALE

DRIVEWAY DETAIL

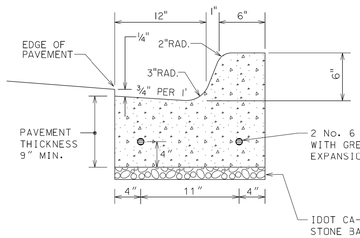
DATE: 11-1-13

E-3

DEPRESSED CURB



B6.12 CURB & GUTTER



NOTES:
1. CONTRACTION JOINTS SHALL BE PLACED AT 15' INTERVALS. AND SHALL BE GROOVED WITH AN EDGING TOOL. SEE ARTICLE 420.10 OF IDOT STANDARD SPECIFICATIONS.
2. EXPANSION JOINTS SHALL BE PLACED AT 60' (MAX) INTERVALS. AT ALL P.C.'S AND P.T.'S. CURB RETURNS. AND AT THE END OF EACH POUR
3. P.C.C. SHALL CONSIST OF IDOT CLASS SI (6.1 BAG MIX) CONCRETE. WITH 5% TO 8% AIR ENTRAINMENT. AND A MINIMUM COMPRESSIVE STRENGTH OF 3.500 PSI AT 14 DAYS.(NO FLY ASH ALLOWED)

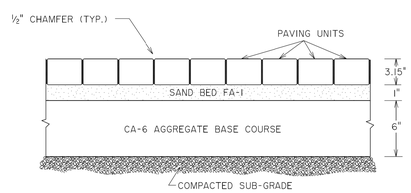
FOR RESIDENTIAL STREETS ONLY

DATE: 10-22-10
NOT TO SCALE

B6.12 COMB. CONCRETE CURB AND GUTTER (SPECIAL)
B6.12 P.C.C. INTEGRAL CURB AND GUTTER (SPECIAL)

D-5

BRICK PAVING DETAIL



NOTES

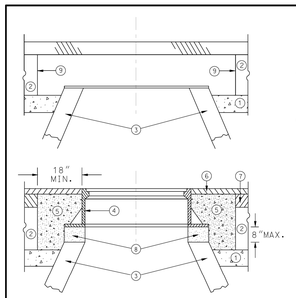
1. PLACEMENT OF PAVER BRICKS OR STAMPED CONCRETE REQUIRE A NON STANDARD PAVEMENT. NOTORIZED PERMIT AGREEMENT AND A "COVENANT RUNNING WITH THE LAND" DOCUMENT. WHICH MUST BE RECORDED AT KANE COUNTY RECORDERS OFFICE PRIOR TO CONSTRUCTION.
2. THE SAND FOR THE BEDDING LAYER SHALL BE DELIVERED TO THE SITE A MINIMUM OF 24 HOURS PRIOR TO PLACEMENT TO ALLOW FOR THE MOISTURE TO DRAIN FROM THE MATERIAL.
3. THE SAND BED SHALL BE COMPACTED PRIOR TO PLACEMENT OF THE PAVER BRICKS. DISTURBED AREAS OR SCREEDED AREAS LEFT OVERNIGHT SHALL BE REMOVED AND RESCREEDED. FOLLOWING THE PLACEMENTOF THE PAVER BRICKS. FA-I SAND SHALL BE SPREAD ACROSS THE SURFACE OF THE SURFACE OF THE PAVERS AND COMPACTED WITH A VIBRATORY PLATE COMPACTOR.
4. THE BASE COURSE SHALL BE CONSTRUCTED OF CA-6 MATERIAL COMPACTED IN TWO LIFTS.
5. EDGE RESTRAINT SHALL BE PROVIDED ON ALL SIDES OF THE PAVER CONSTRUCTION IN THE FORM OF STANDARD CURB AND GUTTER. SIDEWALK. OR THE TYPICAL EDGE RESTRAINT SHOWN ABOVE
6. UNDERCUTS AND THE CONSTRUCTION OF A SUBBASE SHALL OCCUR AS NECESSARY TO ENSURE THE STRUCTURAL STABILITY OF THE ROADWAY.

NOT TO SCALE

BRICK PAVING DETAIL

DATE: 3-31-09

D-8



LEGEND
1. SUB-BASE GRANULAR MATERIAL
2. EXISTING PAVEMENT
3. EXISTING STRUCTURE
4. FRAME AND LID (SEE NOTES)
5. CLASS SI CONCRETE
6. PROPOSED HMA SURFACE COURSE
7. PROPOSED HMA BINDER COURSE
8. PROPOSED MORTAR. STEEL SHIMS & ADJUSTING RINGS 8" MAXIMUM
9. FULL DEPTH SAW CUT

NOTES:

EXISTING FRAMES AND LIDS SHALL BE REMOVED AND RETURNED TO THE CITY OF ST. CHARLES BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER.

CITY OF ST. CHARLES CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY OF REMOVAL AND DISPOSITION OF THE CASTINGS.

INSTALLATION OF NEW OR ADJUSTMENTS TO EXISTING FRAMES & LIDS WILL NOT BE PAID FOR SEPARATELY BUT ARE INCLUDED AS PART OF THE COST PER EACH ARE INCLUDED AS PART OF THE COST PER EACH ADJUSTED. SPECIAL".

CONSTRUCTION PROCEDURES

STAGE 1 (AFTER PAVEMENT MILLING AND PLACEMENT OF HMA BINDER)

A) FULL DEPTH SAW CUT 5' X 5' SQUARE OR DIAMOND AROUND CENTER OF FRAME TO BE ADJUSTED
B) REMOVE FRAME. EXISTING PAVEMENT AND AGGREGATE MATERIAL TO A DEPTH OF 2" BELOW TOP OF MANHOLE STRUCTURE OR 2" BELOW BOTTOM OF LOWEST ADJUSTMENT RING.
C) ADJUST NEW FRAME TO MATCH PROPOSED HMA PAVEMENT SURFACE GRADE USING MORTAR. STEEL SHIMS EMBEDDED IN MORTAR. AND PRECAST CONCRETE ADJUSTING RINGS.
D) COMPACT EXISTING AGGREGATE STONE BASE.
E) FILL 5'X5' SURROUNDING SPACE WITH IDOT APPROVED CLASS SI CONCRETE TO THE SAME ELEVATION OF THE TOP OF THE BINDER COURSE.
F) PAVE SURFACE COURSE OVER 5'X 5' CONCRETE COLLAR.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353. 406. 602. AND 603 OF THE STANDARD SPECIFICATIONS

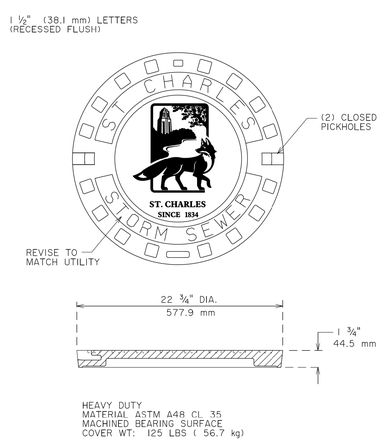
NOT TO SCALE

FRAME AND LID ADJUSTMENT WITH CONCRETE COLLAR

DATE: 12-8-10

E-6

SPECIAL LETTERED
R-1713 HDSI WATER VAULT, SANITARY
AND STORM SEWER MANHOLE COVER



HEAVY DUTY
MATERIAL ASTM A48 CL 35
MACHINED BEARING SURFACE
COVER WT: 125 LBS (56.7 kg)

NOT TO SCALE

STANDARD COVER DETAIL

DATE: 11-19-09

D-7

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CONSTRUCTION DETAILS

DSGN.	JLB	
DWN.	JLB	
CHKD.	VDP	
SCALE : NOT TO SCALE		

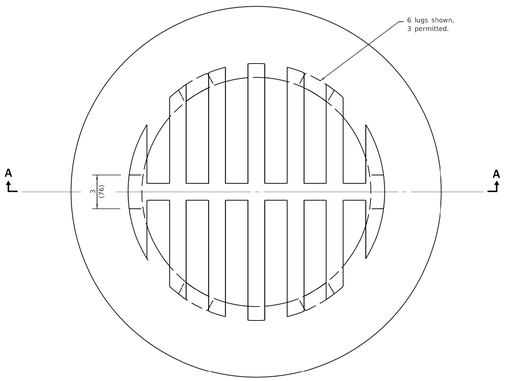
NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

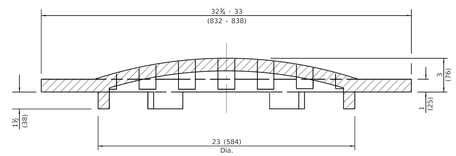
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **DT1**
SHEET
35 OF 52

PLOT DATE = 3/5/2020
USER NAME = vincepatel
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_dt.dgn



CAST GRATE



SECTION A-A

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

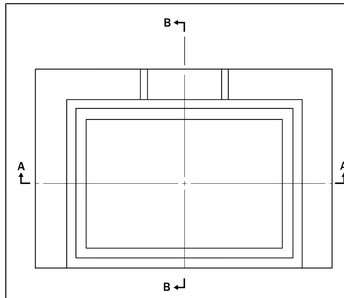
PASSED January 1, 2015
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

BDM801 1-1-09

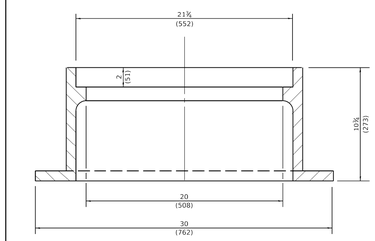
DATE	REVISIONS
1-1-15	Revised dimensions.
1-1-09	Switched units to
	English (metric).

GRATE TYPE 8

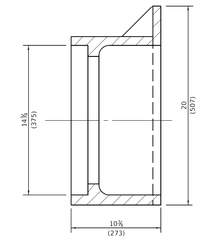
STANDARD 604036-03



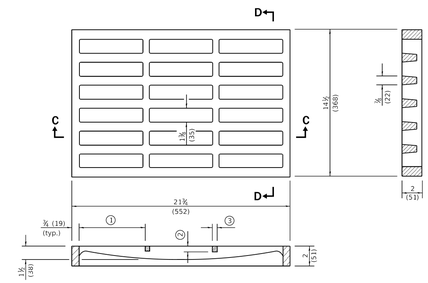
SECTION A-A



CAST FRAME



SECTION B-B



SECTION C-C

SECTION D-D

① = 6¼ (159) (typ.)
② = ⅜ (19) (typ.)
③ = ⅝ (16) (typ.)

CAST GRATE

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

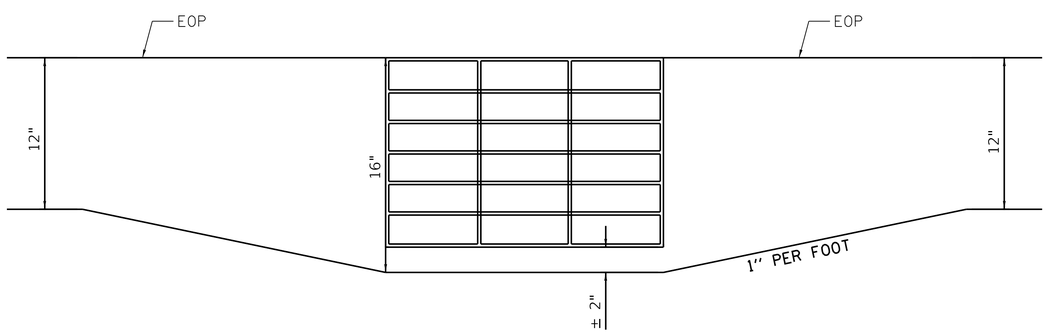
PASSED April 1, 2016
ENGINEER OF POLICY AND PROCEDURES
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

BDM801 1-1-09

DATE	REVISIONS
4-1-16	Corrected dimension on
	SECTION A-A.
1-1-15	Revised dimensions of frame
	and grate.

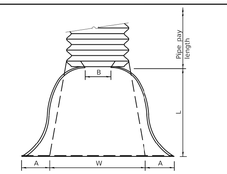
FRAME AND GRATE TYPE 4

STANDARD 604016-04

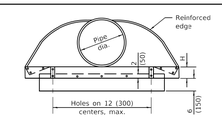


TYPE 4 STRUCTURE IN RIBBON CURB

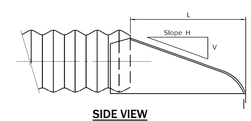
PIPE DIA.	THICK-NESS	DIMENSIONS A 1± (25)	B (max.)	H 1± (25)	L 1½± (38)	W 2± (50)	SLOPE (Approx.) (V:H)	BODY
12 (300)	0.064 (1.63)	6 (150)	6 (150)	6 (150)	21 (535)	24 (610)	1:2½	1 Pc.
15 (375)	0.064 (1.63)	7 (180)	8 (205)	6 (150)	26 (660)	30 (760)	1:2½	1 Pc.
18 (450)	0.079 (2.01)	8 (205)	10 (255)	6 (150)	31 (785)	36 (915)	1:2½	1 Pc.
21 (525)	0.079 (2.01)	9 (230)	12 (305)	6 (150)	36 (915)	42 (1.065 m)	1:2½	1 Pc.
24 (600)	0.079 (2.01)	10 (255)	13 (330)	6 (150)	41 (1.040 m)	48 (1.220 m)	1:2½	1 Pc.
30 (750)	0.109 (2.77)	12 (305)	16 (405)	8 (205)	51 (1.295 m)	60 (1.525 m)	1:2½	1 Pc.
36 (900)	0.109 (2.77)	14 (355)	19 (480)	9 (230)	60 (1.525 m)	72 (1.830 m)	1:2½	2 Pc.
42 (1050)	0.079 (2.01)	16 (405)	22 (560)	11 (280)	69 (1.750 m)	84 (2.135 m)	1:2½	2 Pc.
48 (1200)	0.109 (2.77)	18 (455)	27 (685)	12 (305)	78 (1.980 m)	90 (2.285 m)	1:2¼	2 Pc.
54 (1350)	0.109 (2.77)	18 (455)	30 (760)	12 (305)	84 (2.135 m)	102 (2.590 m)	1:2	2 Pc.
60 (1500)	0.109 (2.77)	18 (455)	33 (840)	12 (305)	87 (2.210 m)	114 (2.895 m)	1:1¾	3 Pc.
66 (1650)	0.109 (2.77)	18 (455)	36 (915)	12 (305)	87 (2.210 m)	120 (3.050 m)	1:1½	3 Pc.
72 (1800)	0.138 (3.51)	18 (455)	39 (990)	12 (305)	87 (2.210 m)	126 (3.200 m)	1:1 3/5	3 Pc.
78 (1950)	0.168 (4.27)	18 (455)	42 (1.065 m)	12 (305)	87 (2.210 m)	132 (3.355 m)	1:1¼	3 Pc.
84 (2250)	0.168 (4.27)	18 (455)	45 (1.145 m)	12 (305)	87 (2.210 m)	138 (3.505 m)	1:1 4/5	3 Pc.



PLAN



END VIEW



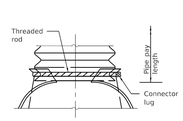
SIDE VIEW

END SECTION

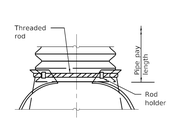
NOTES

For 60 (1500) thru 84 (2250) sizes, reinforced edges shall be supplemented with stiffener angles. The angles shall be 2x2x¼(51x51x6.4) for 60 (1500) thru 72 (1800) diameter and 2½x2½x¼ (64x64x6.4) for 78 (1950) thru 84 (2250) diameter. The angles shall be attached by ⅝ (M10) rivets or bolts.

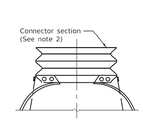
All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).



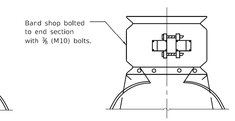
TYPE 1
For 12 (300) thru 24 (600) only
(See Note 1)



TYPE 2
For 30 (750) and 36 (900) only
(See Note 1)



TYPE 3
(See Note 2)



TYPE 4
(See Note 3)

1 (25) wide, 0.109 (2.77) thick strap with standard ½x6 (M12x150) band bolt and nut.

ALTERNATE STRAP CONNECTOR
(For Type 1 only)

CONNECTIONS OF END SECTIONS

NOTES

1. Types 1 and 2 for pipes with annular ends only.
2. Type 3 connection may be used for all pipe sizes and includes 12 (300) of the pipe length. The connector section shall be attached to the end section by rivets or bolts and shall be the same metal thickness as the end section. Stub shall be either 2⅔ (68) pitch x ½ (13) depth or 3 (75) pitch x 1 (25) depth annular corrugated pipe.
3. Type 4 connection can be used for all pipe sizes. Coupler shall be 2⅔ x ½ (68x13) dimple, hugger, or annular band of 3x1 (75x25). The dimple, hugger, or annular band may be used with corrugated metal pipes having annular ends. For corrugated metal pipes having helical ends, only the dimple band will be allowed.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2018
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2018
ENGINEER OF DESIGN AND ENVIRONMENT

BDM801 1-1-07

DATE	REVISIONS
1-1-18	Renamed standard.
4-1-16	Revised THICKNESS values
	in table.

METAL FLARED END SECTION FOR PIPE CULVERTS

STANDARD 542401-03

PLOT DATE = 3/5/2020
USER NAME = mwalsmith
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_dt.dgn

CLIENT : CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

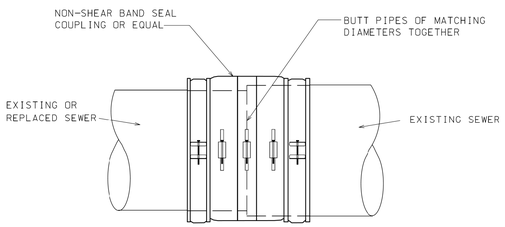
PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. DT2
SHEET
36 OF 52

N 2ND AVE & DELNOR AVE
UTILITY IMPROVEMENTS

CONSTRUCTION DETAILS

DSGN. JLB
DWN. JLB
CHKD. VDP
SCALE : NOT TO SCALE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

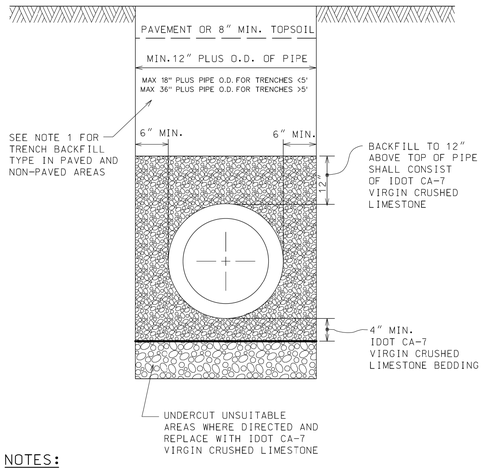


NOT TO SCALE

PIPE COUPLING DETAIL

DATE: 3-31-09

G-3



NOTES:

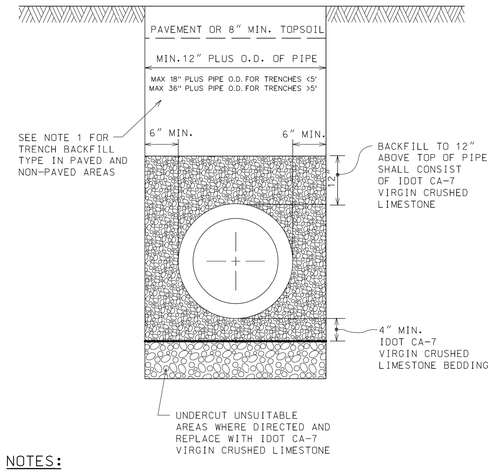
1. TRENCH BACKFILL MATERIAL SHALL CONSIST OF CA-7 (VIRGIN CRUSHED LIMESTONE) UNDER PAVED AREAS OR WITHIN ZONE OF INFLUENCE, OR FA-6 (CLEAN BROWN BEACH SAND) IN NON-PAVED AREAS.
2. ALL MATERIALS SHALL BE PROPERLY COMPACTED PER SPECIFICATIONS (INUNDATION OR WATER JETTING NOT ALLOWED)
3. ALL TRENCH EXCAVATIONS SHALL MEET OSHA REQUIREMENTS.
4. ALL STORM SEWER SMALLER THAN 15" DIA. THAT WILL BE PUBLICLY OWNED & MAINTAINED SHALL BE RIGID PVC PIPE, MINIMUM SDR 26 WITH PUSH-ON GASKET JOINTS.

NOT TO SCALE

RCP & DIP TRENCH DETAIL

DATE: 3-26-13

A-6



NOTES:

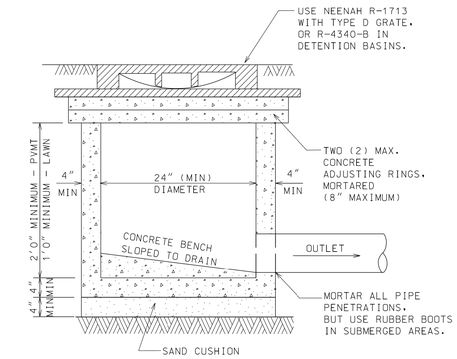
1. TRENCH BACKFILL MATERIAL SHALL CONSIST OF CA-7 (VIRGIN CRUSHED LIMESTONE) UNDER PAVED AREAS OR WITHIN ZONE OF INFLUENCE, OR FA-6 (CLEAN BROWN BEACH SAND) IN NON-PAVED AREAS.
2. ALL MATERIALS SHALL BE PROPERLY COMPACTED PER SPECIFICATIONS (INUNDATION OR WATER JETTING NOT ALLOWED)
3. ALL TRENCH EXCAVATIONS SHALL MEET OSHA REQUIREMENTS.
4. ALL STORM SEWER SMALLER THAN 15" DIA. THAT WILL BE PUBLICLY OWNED & MAINTAINED SHALL BE RIGID PVC PIPE, MINIMUM SDR 26 WITH PUSH-ON GASKET JOINTS.

NOT TO SCALE

PVC PIPE TRENCH DETAIL

DATE: 3-26-13

A-5



NOTE:

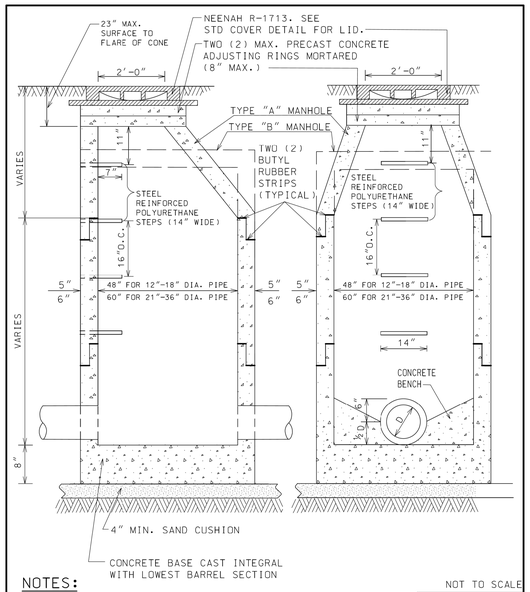
1. INLET TO BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
2. INLET MUST CONFORM TO ASTM C-478.
3. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
4. MAXIMUM DEPTH FROM INVERT OF OUTLET PIPE TO TOP OF FRAME SHALL NOT EXCEED 42 INCHES. IF DESIGN OR CONSTRUCTION REQUIRES DEPTH BEYOND 42 INCHES, STRUCTURE SHALL BE REVISED TO A 48 INCH DIAMETER TY A MANHOLE.

NOT TO SCALE

TYPE A INLET DETAIL

DATE: 3-31-09

E-1



NOTES:

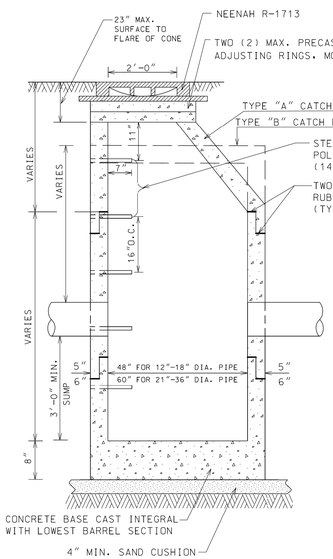
1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. BENCHES MUST BE PROVIDED IN ALL STORM SEWER MANHOLES.
4. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
5. MORTAR ALL PIPE PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURE.
6. IN "SUBMERGED" CONDITIONS, ALL PIPE PENETRATIONS TO BE CORED, RUBBER BOOTED AND INTERIOR MORTARED.
7. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "SI" MIXTURE.

NOT TO SCALE

TYPE A & B STORM MANHOLE DETAIL

DATE: 7-27-10

B-3



NOTES:

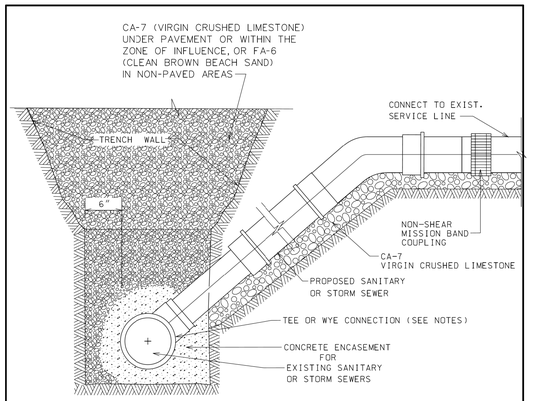
1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BCOTED.
4. MORTAR ALL PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURE.
5. IN "SUBMERGED" CONDITIONS, ALL PIPE PENETRATIONS TO BE CORED, RUBBER BOOTED AND INTERIOR MORTARED.
6. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "SI" MIXTURE.

NOT TO SCALE

TYPE A & B CATCH BASIN DETAIL

DATE: 7-27-10

B-5



NOTES:

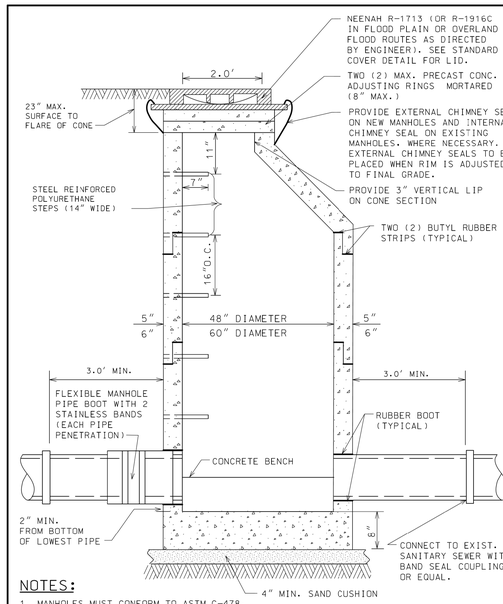
1. FOR PROPOSED STORM SEWER SERVICE ≤ 6" ON RCP PIPE ≥ 15", CORE THE PIPE AND USE A BOOT CONNECTION.
2. FOR PROPOSED STORM SEWER SERVICE ≥ 8", A MANHOLE SHALL BE INSTALLED.
3. FOR CONNECTING SANITARY OR STORM SEWER SERVICE TO AN EXISTING SANITARY OR STORM SEWER ≤ 12", REMOVE A SECTION OF PIPE AND INSTALL A TEE OR WYE CONNECTION.
4. FOR CONNECTING SANITARY SEWER SERVICE TO AN EXISTING SANITARY SEWER ≥ 15", CIRCULAR SAW-CUT AND USE A HUB WYE OR TEE SADDLE CONNECTION.
5. FOR PROPOSED STORM OR SANITARY SEWER SERVICES, ENCASE ALL CONNECTIONS IN LOW STRENGTH CONCRETE TO PREVENT THE FITTINGS FROM ROTATING.
6. FOR TRENCHES WITHIN AN EXISTING PAVED SURFACE AREA, CA-7 (VIRGIN CRUSHED LIMESTONE) BACKFILL SHALL BE USED.
7. FOR PROPOSED 6" STORM SEWER SUMP LINE, INSTALL PLUG AND 2" X 4" POST AT END OF LINE.

NOT TO SCALE

SANITARY AND STORM SERVICE DETAIL

DATE: 12-8-10

C-2



NOTES:

1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. BENCHES MUST BE PROVIDED IN ALL SANITARY SEWER MANHOLES
4. USE EXTERNAL LIFTING "HOLES" ONLY. BUT NOT FULL PENETRATION.
5. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
6. PIPE PENETRATIONS TO BE RUBBER BOOTED AND INTERIOR MORTARED.
7. USE ECCENTRIC CONE ONLY.
8. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "SI" MIXTURE.

NOT TO SCALE

SANITARY MANHOLE DETAIL

DATE: 7-27-10

A-2

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CONSTRUCTION DETAILS

DSGN.	JLB
DWN.	JLB
CHKD.	VDP
SCALE : NOT TO SCALE	

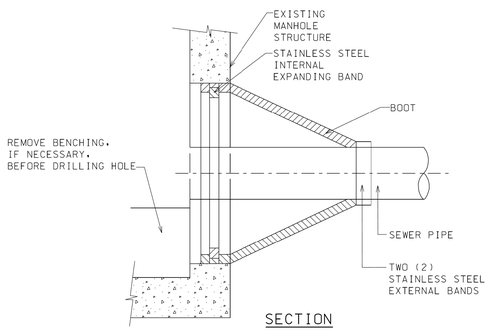
NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **DT3**
SHEET
37 OF 52

PLOT DATE = 3/9/2020
USER NAME = Vince Pesek
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_dt.dgn



SECTION

NOTES:

1. CORE-DRILL CIRCULAR OPENING IN MANHOLE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE.
2. KOR-N SEAL FLEXIBLE RUBBER BOOT (MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS, INC. OR AS APPROVED BY THE ENGINEERING DEPARTMENT) SHALL BE USED FOR WATERTIGHT CONNECTION.
3. CUT, SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM NEW SANITARY SEWER CONNECTION.
4. CLEAN EXISTING MANHOLE OF ANY DIRT, CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.

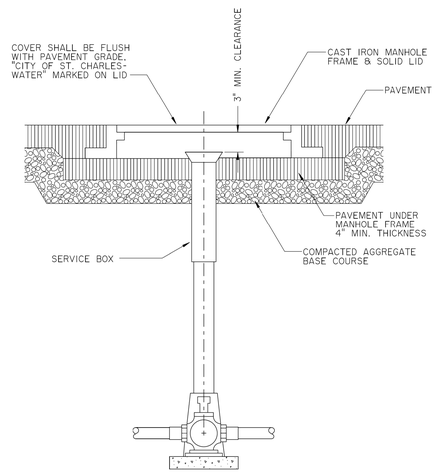
NOT TO SCALE

SANITARY SEWER CONNECTION TO EXISTING MANHOLE

DATE: 3-31-09

A-4

SERVICE BOX IN PAVED AREA

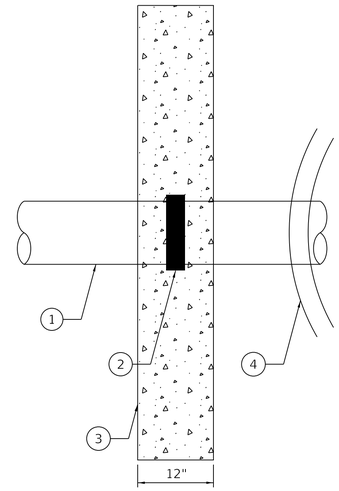


NOT TO SCALE

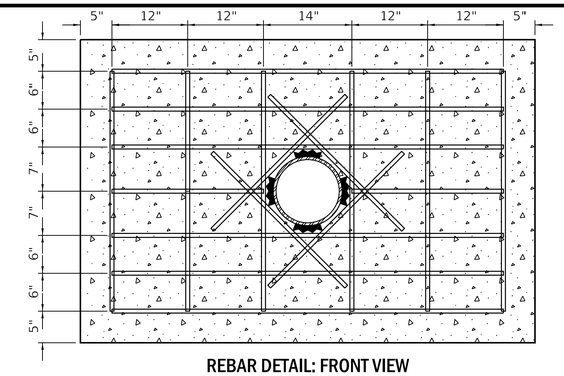
SERVICE BOX IN PAVED AREA

DATE: 3-31-09

A-8



ELEVATION VIEW



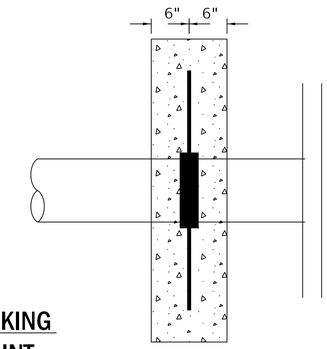
REBAR DETAIL: FRONT VIEW

NOTES:

ENGINEER TO CONFIRM ADEQUATE SOIL PRESSURE BEARING CAPACITY FOR THRUST BLOCK.

APPROXIMATELY .89 CY (24 CF) OF CONCRETE SHALL BE USED FOR THRUST BLOCK.

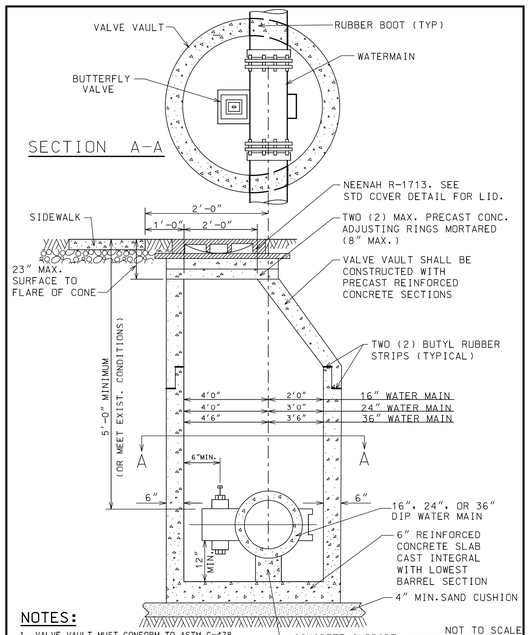
REBAR SCHEDULE		
TYPE	LENGTH (INCH)	NUMBER REQUIRED
VERTICAL	38	6
HORIZONTAL	62	6
DIAGONAL	30	4
HORIZONTAL	24	2
#5 BARS		



REBAR DETAIL: SIDE VIEW

1. HDPE PIPE, 10"
2. ELECTROFUSED HDPE FLEX RESTRAINT, 3 MINIMUM.
   -- COMPLY WITH MANUFACTURERS INSTRUCTIONS FOR NUMBER OF FLEX RESTRAINTS IF GREATER THAN SHOWN FOR 10" HDPE PIPE SPECIFIED.
   -- FLEX RESTRAINTS MUST BE RATED AT 7,000 LBS OF FORCE OR HIGHER.
3. CONCRETE WALL BLOCKING - F'C = MINIMUM 3,500 PSI
4. PRECAST CONCRETE VALVE VAULT (DEPICTED FOR REFERENCE ONLY)

CONCRETE THRUST BLOCKING FOR HDPE FLEX RESTRAINT



NOTES:

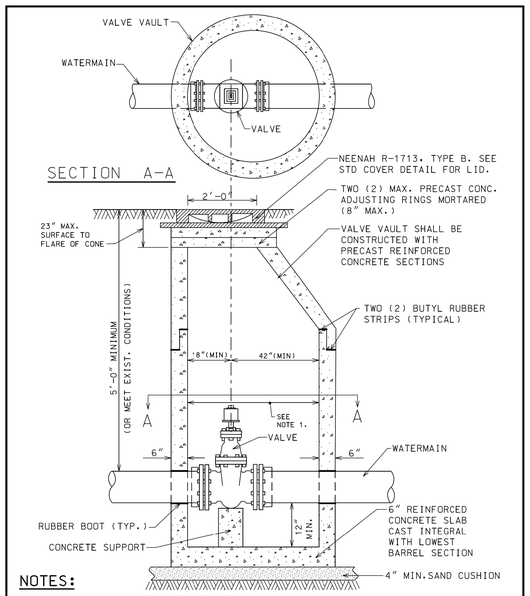
1. VALVE VAULT MUST CONFORM TO ASTM C-478.
2. USE ECCENTRIC CONE ONLY.
3. VAULT SECTIONS TO BE TONGUE AND GROOVED.
4. ALL NON-PRECAST PIPE OPENINGS TO BE CORED AND RUBBER BOOTED.
5. BACKFILL MATERIAL SHALL BE IDOT CA-7 VIRGIN CRUSHED LIMESTONE.
6. ALL BOLTS, NUTS & WASHERS SHALL BE 304 GRADE STAINLESS STEEL.
7. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "SI" MIXTURE.

NOT TO SCALE

BUTTERFLY VALVE VAULT DETAIL

DATE: 11-12-13

F-5



NOTES:

1. 48" MIN. INSIDE DIA. FOR VALVES LESS THAN 8" DIA.
   60" MIN. INSIDE DIA. FOR ALL OTHER VALVE VAULTS.
2. VALVE VAULT MUST CONFORM TO ASTM C-478.
3. USE ECCENTRIC CONE ONLY.
4. VAULT SECTIONS TO BE TONGUE AND GROOVED.
5. NON-PRECAST PIPE OPENINGS TO BE CORED AND RUBBER BOOTS INSTALLED.
6. BACKFILL MATERIAL SHALL BE IDOT CA-7 VIRGIN CRUSHED LIMESTONE.
7. a) MECHANICAL JOINT BOLTS, NUTS & WASHERS SHALL BE COMPOSED OF CORE-TEN.
   b) ALL OTHER HEXAGONAL BOLTS, NUTS & WASHERS SHALL BE COMPOSED OF 304 GRADE STAINLESS STEEL.
8. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "SI" MIXTURE.

NOT TO SCALE

VALVE VAULT DETAIL

DATE: 11-12-13

B-1

Minimum Restrained Lenghts (in feet) back from both sides of fitting

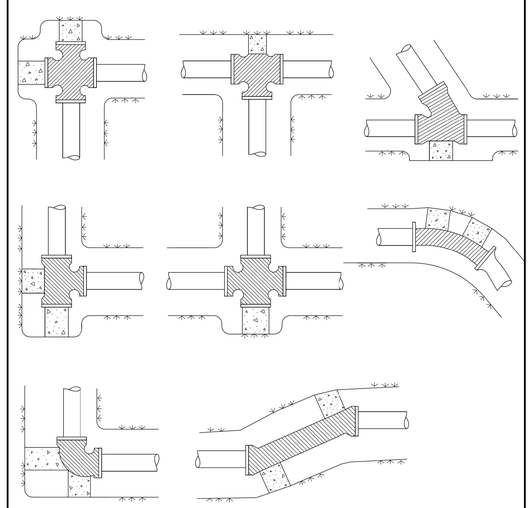
Fitting type/nominal size		4"	6"	8"	10"	12"	16"
90 Degree Bend		17	25	32	38	45	59
45 Degree Bend		7	10	13	16	19	24
22.5 Degree Bend		3	5	6	8	9	12
11.25 Degree Bend		2	2	3	4	4	6
Dead End		39	55	73	87	103	134
Top Side Vertical Offset * (45 Degree)		16	23	30	36	43	55
Bottom Side Vertical Offset * (45 Degree)		4	6	8	10	11	15
Tee Run X Branch **	6" by	1	17				
Tee Run X Branch **	8" by	1	5	34			
Tee Run X Branch **	10" by	1	1	24	49		
Tee Run X Branch **	12" by	1	1	15	41	65	
Tee Run X Branch **	16" by	1	1	1	26	52	95
Reducer ***	6" by	28					
Reducer ***	8" by	52	30				
Reducer ***	10" by	71	54	29			
Reducer ***	12" by	90	75	55	51		
Reducer ***	16" by	123	113	97	94	54	

* Vertical offset with minimum 10'of solid pipe between upper and lower bend.
** Tee with MINIMUM 10' solid pipe on both sides of run.
Number indicates length of branch to be restrained.
*** Length back from Large Eng of Reducer.

WATER MAIN RESTRAINT

DATE: 3-31-09

C-7



NOTE:

1. ALL BENDS OF 10° AND LARGER SHALL BE BLOCKED WITH AT LEAST 10" THICK PREFORMED CONCRETE BLOCK(S) AGAINST UNDISTURBED VERTICAL EARTH FACE.
2. ALL CONCRETE TO BE MIN. 3,000 PSI.
3. IN ADDITION TO THE ABOVE THRUST BLOCKING: ALL MECHANICAL JOINTS, BENDS OVER 10° AND FIRE HYDRANTS SHALL HAVE A "MEGALUG" RESTRAINT, OR AS APPROVED BY THE ENGINEERING DIVISION. BOLTS SHALL BE "COR-TEN".

NOT TO SCALE

THRUST BLOCK INSTALLATION DETAILS

DATE: 3-2-11

A-7

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CONSTRUCTION DETAILS

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
4		
5		
6		
7		
8		

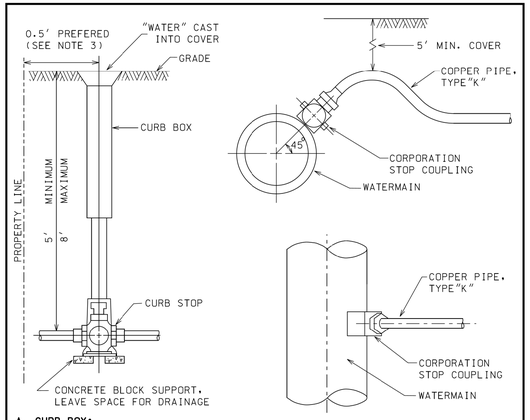
DSGN.
DWN.
CHKD.
SCALE :

CLIENT : CITY OF ST. CHARLES 2 EAST MAIN STREET ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. DT4
SHEET
38 OF 52

PLOT DATE = 3/5/2020
USER NAME = WBKENGINEERING
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_dt.dgn



A. CURB BOX:

1. MUELLER H-10300 WITH 1-1/4" I.D. UPPER SECTION AND 2" MINEAPOLIS TAPPED BASE.
2. A.Y. MCDONALD 5615 1-1/4"

B. CURB STOP:

MUELLER B-25155-N (1".1½". 2")
FORD B-44-444-Q-NL 1"
B-44-666-Q-NL 1½"
B-44-777-Q-NL 2"
A.Y. McDONALD 76104-Q 1".1½".2"
Q SERIES BRASS

C. CORPORATION STOP:

MUELLER B-25008-N (1".1-1/2". 2")
FORD FB1000 -4-Q-NL 1"
FB 1000-6-Q-NL 1-1/2"
FB 1000-7-Q-NL 2"
A.Y. McDONALD 74701-BQ 1". 1-1/2". 2"
Q SERIES BRASS. WITH 90 SWIVEL ELBOW

NOTES:

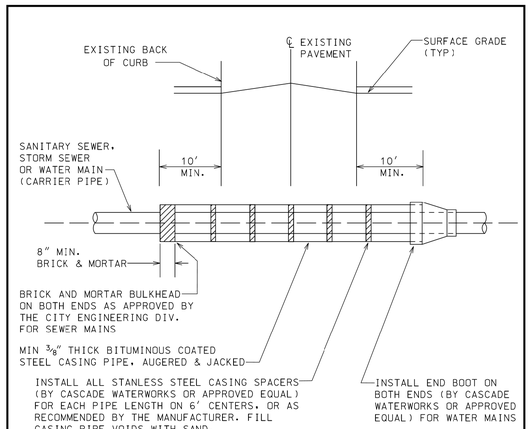
1. PIPE SIZE CAN VARY. BUT 1" MINIMUM. OTHER APPURTENANCES SHALL REFLECT SAME.
2. COPPER PIPE SHALL BE ONE PIECE BETWEEN TAP AND CURB BOX.
3. PLACE BETWEEN SIDEWALK AND PROPERTY LINE. KEEP BOXES OUT OF SIDEWALKS AND DRIVEWAY.
4. MINIMUM OF 3' BETWEEN TAPS AND 3' TO NEAREST JOINT.
5. 1" SERVICE MAY BE DIRECTLY TAPPED INTO 6" OR LARGER MAIN. LARGER SERVICES REQUIRE A SMITH-BLAIR 372 OR APPROVED EQUAL STAINLESS STEEL TAP THROUGH SLEEVE.

NOT TO SCALE

DATE: 11-12-13

COPPER WATER SERVICE CONNECTION DETAILS

A-3



NOTES:

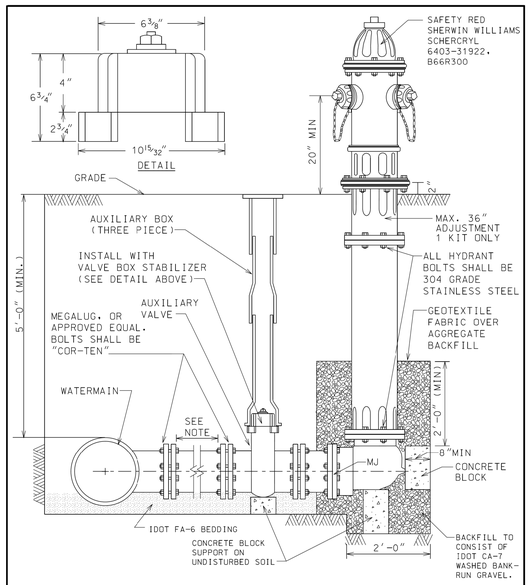
1. CASING PIPE IS REQUIRED UNDER ALL EXISTING ROADWAYS. OR AS OTHERWISE DIRECTED BY THE ENGINEERING DIVISION WHERE OPEN CUTS ARE NOT PERMITTED. EXCEPT FOR WATER SERVICE LINES UP TO 2" IN DIAMETER.
2. WATER MAIN CASING SPACERS SHALL BE RESTRAINED IN POSITION.
3. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE DETERMINED BY CONTRACTOR BUT IN NO CASE SHALL IT BE LESS THAN 8" LARGER THAN THE DIAMETER OF THE CARRIER PIPE TO ALLOW AMPLE SPACE FOR BELLS. AND CARRIER PIPE SLOPE (FOR GRAVITY PIPE).
4. ALL AUGER PITS TO BE BACKFILLED WITH IDOT CA-7 VIRGIN CRUSHED LIMESTONE MATERIAL.
5. POLY WRAPPED WATER MAIN REQUIRED IN CASING.

NOT TO SCALE

DATE: 11-12-13

CASING PIPE DETAIL

G-4



HYDRANT SPECIFICATIONS:

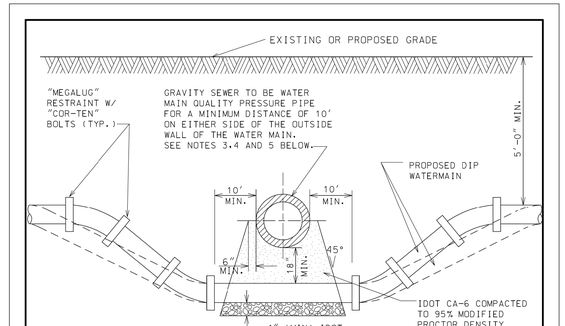
MUELLER SUPER CENTURION 200. WATEROUS PACER MODEL WB-67-250. OR CLOW MEDALLION.
MECHANICAL JOINT SHOE WITH 6" RESILIENT WEDGE AUXILIARY VALVE.
5-1/4" VALVE OPENING
5' MIN. COVER OVER HYDRANT LATERAL
"HYDRAFINDER" STANDARD HYDRANT LOCATOR. INSTALLED
VALVE BOX SHALL HAVE A VALVE BOX STABILIZER INSTALLED*
*VALVE BOX ADAPTOR #2 TYPE A. AS MADE BY ADAPTOR. INC. OR APPROVED EQUAL.

NOT TO SCALE

DATE: 11-19-09

HYDRANT INSTALLATION

B-6



NOTES:

1. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATERMAINS AND SEWERS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE CITY OF ST. CHARLES ENGINEERING GUIDE OR IEPA REQUIREMENTS. WHICHEVER IS MORE STRINGENT.
2. CONTRACTOR MAY BEND WATER MAIN PIPE UNIFORMLY UNDER SEWERS WITHOUT USING FITTINGS. PROVIDED THAT JOINT DEFLECTION DOES NOT EXCEED 5 DEGREES PER JOINT FOR PIPE UNDER 14" IN DIAMETER AND 3 DEGREES PER JOINT FOR PIPE 14" AND OVER IN DIAMETER. IF FITTINGS ARE USED. CONTINUOUS STRAPPING WITH RODS. STRAPS. NUTS AND BOLTS BELOW NORMAL WATERMAIN DEPTH ARE REQUIRED. OR RETAINER GLANDS MAY BE USED IN LIEU OF STRAPPING. RETAINER GLANDS TO BE CLOW No. F-1058 OR APPROVED EQUAL.
3. ALL SANITARY SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS OR WATER SERVICES ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE (SDR 26-160 PSI) AND SHALL CONFORM WITH THE LATEST REVISION OF ASTM D- 2241. JOINTS SHALL CONFORM TO ASTM D-3139 AND ELASTOMERIC GASKETS SHALL CONFORM TO ASTM F-477. THE SAME PIPE AND JOINT MATERIALS SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
4. ALL STORM SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE REINFORCED CONCRETE PIPE. ASTM C-361. CLASS D-25. WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS. OR PVC SDR 26 AS SPECIFIED IN NOTE 3 ABOVE. THE SAME PIPE AND JOINT MATERIAL SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
5. FOR NEW SEWER INSTALLATIONS CROSSING OVER WATER MAINS. THE ENTIRE RUN OF NEW SEWER SHALL BE WATER MAIN QUALITY PIPE. EXTENDING FROM STRUCTURE TO STRUCTURE ON EACH SIDE OF THE CROSSING.

NOT TO SCALE

DATE: 3-31-09

WATER MAIN CROSSING DETAIL

E-4

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CONSTRUCTION DETAILS

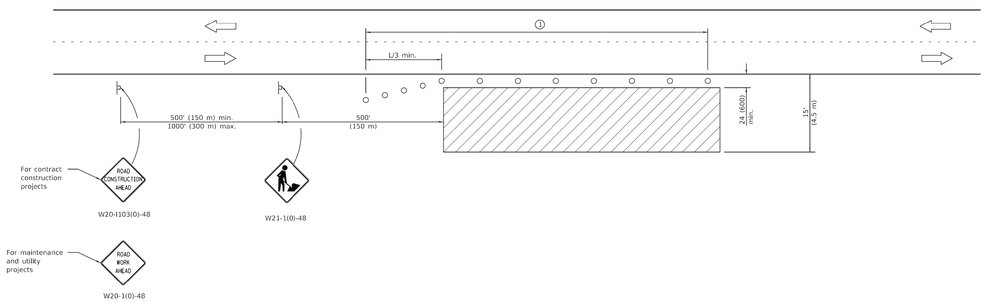
NO.	DATE	NATURE OF REVISION	DSGN.
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS	DWN.
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS	CHKD.
3			SCALE :
4			
5			
6			
7			
8			

CLIENT : **CITY OF ST. CHARLES 2 EAST MAIN STREET ST. CHARLES, IL 60174**

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **DT5**
SHEET
39 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwebster
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_dt.dgn



TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

SYMBOLS

Work area

Sign

Cone, drum or barricade

(1) When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS English	(Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L=(W)(S)$	$L=0.65(W)(S)$

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

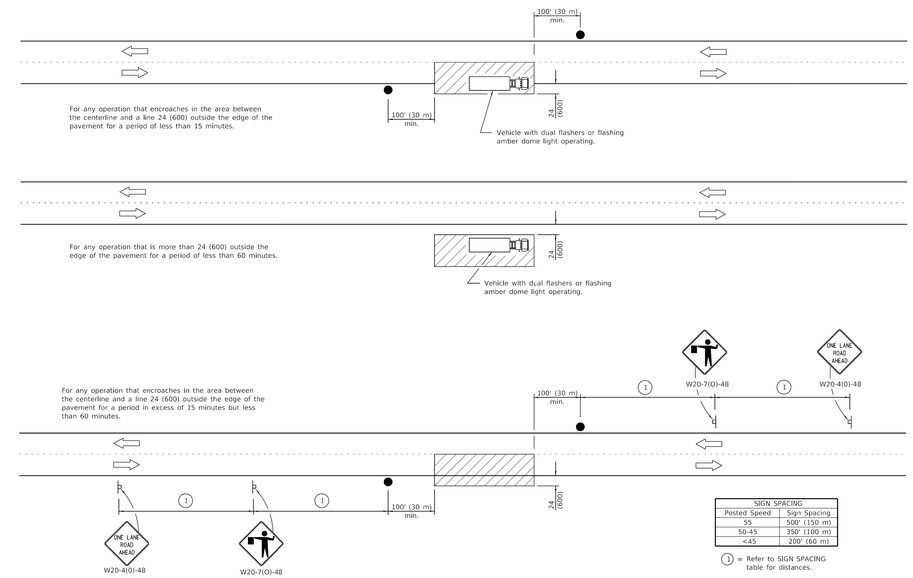
PASSED January 1, 2014
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

D1-07
1-1-14

DATE	REVISIONS
1-1-14	Revised workers sign
	number to agree with
	current MUTCD.
1-1-13	Omitted text 'WORKERS'
	sign.

OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701006-05



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

(1) = Refer to SIGN SPACING table for distances.

All dimensions are in inches (millimeters) unless otherwise shown.

TYPICAL APPLICATIONS

Marking patches
Field survey
String line
Utility operations
Cleaning up debris on pavement

SYMBOLS

Work area

Sign on portable or permanent support

Flagger with traffic control sign

Illinois Department of Transportation

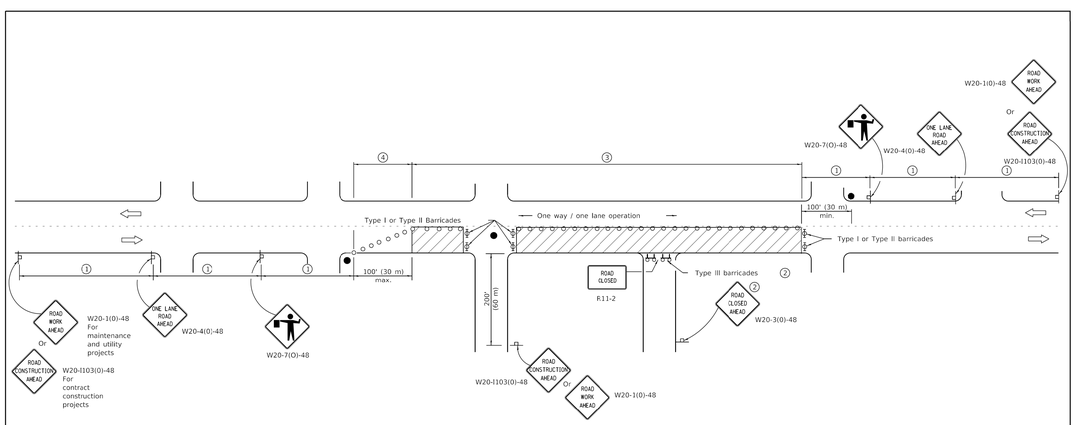
PASSED January 1, 2011
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

D1-07
1-1-11

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).

LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS

STANDARD 701301-04



SIGN SPACING	
Postec Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

Work area

Cone, drum or barricade (not required for moving operations)

Sign on portable or permanent support

Flagger with traffic control sign

Barricade or drum with flashing light

Type III barricade with flashing lights

(1) Refer to SIGN SPACING TABLE for distances.

(2) For approved sideroad closures.

(3) Cones at 25' (8 m) centers for 250 (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

(4) Cones, drums or barricades at 20' (6 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2011
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

D1-07
1-1-11

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).
	Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

STANDARD 701501-06

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
3		
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8		

DSGN.
DWN.
CHKD.
SCALE :

N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CONSTRUCTION DETAILS

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **DT6**
SHEET
40 OF 52

PLOT DATE = 3/5/2020
USER NAME = mhendron
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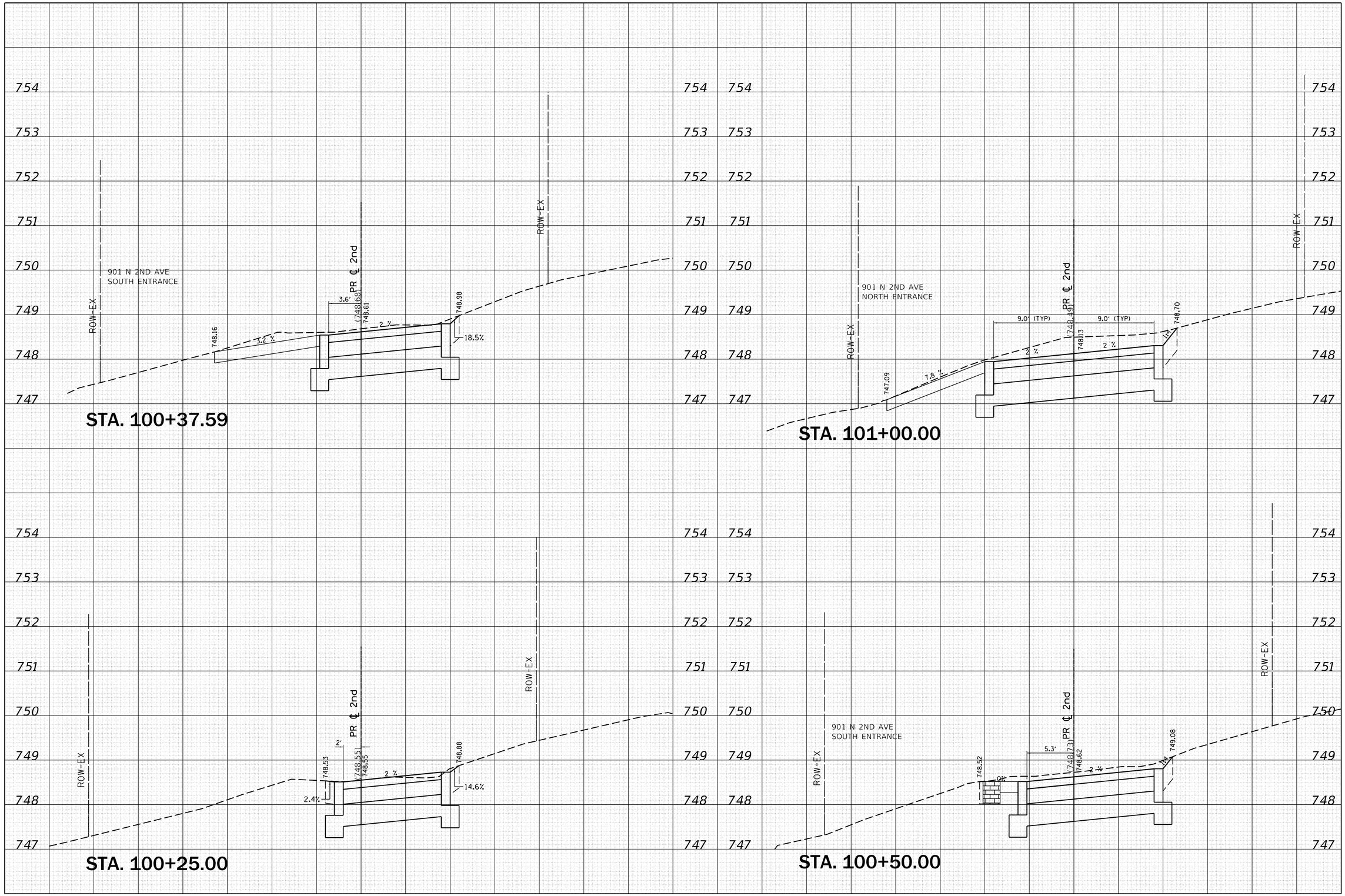

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN.
DWN.
CHKD.
SCALE :

TITLE
N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **XS1**
SHEET
41 OF 52

PLOT DATE = 3/5/2020
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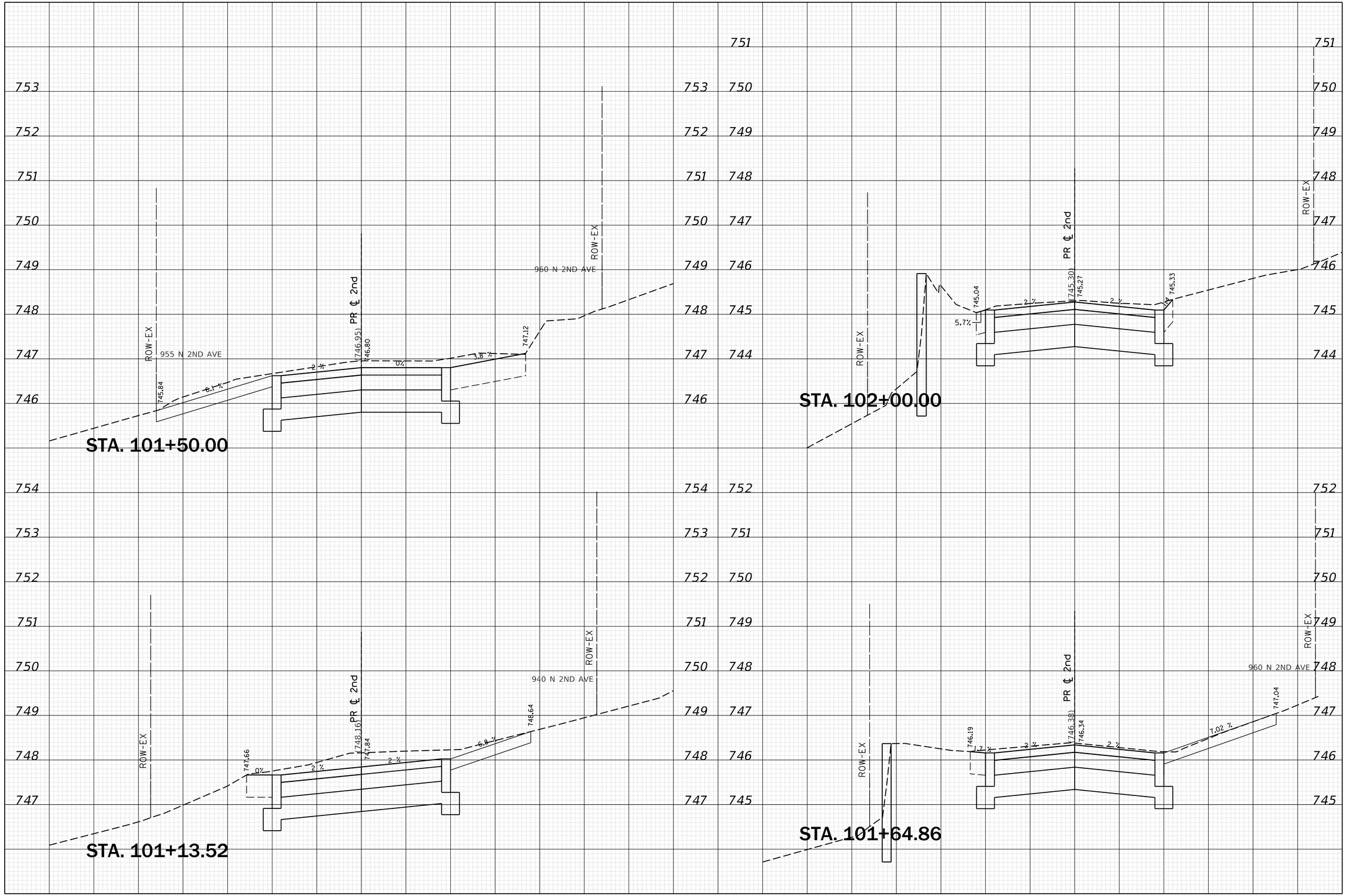

TITLE: N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN.
DWN.
CHKD.
SCALE :

CLIENT : CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. XS2
SHEET
42 OF 52

PLOT DATE = 3/5/2020
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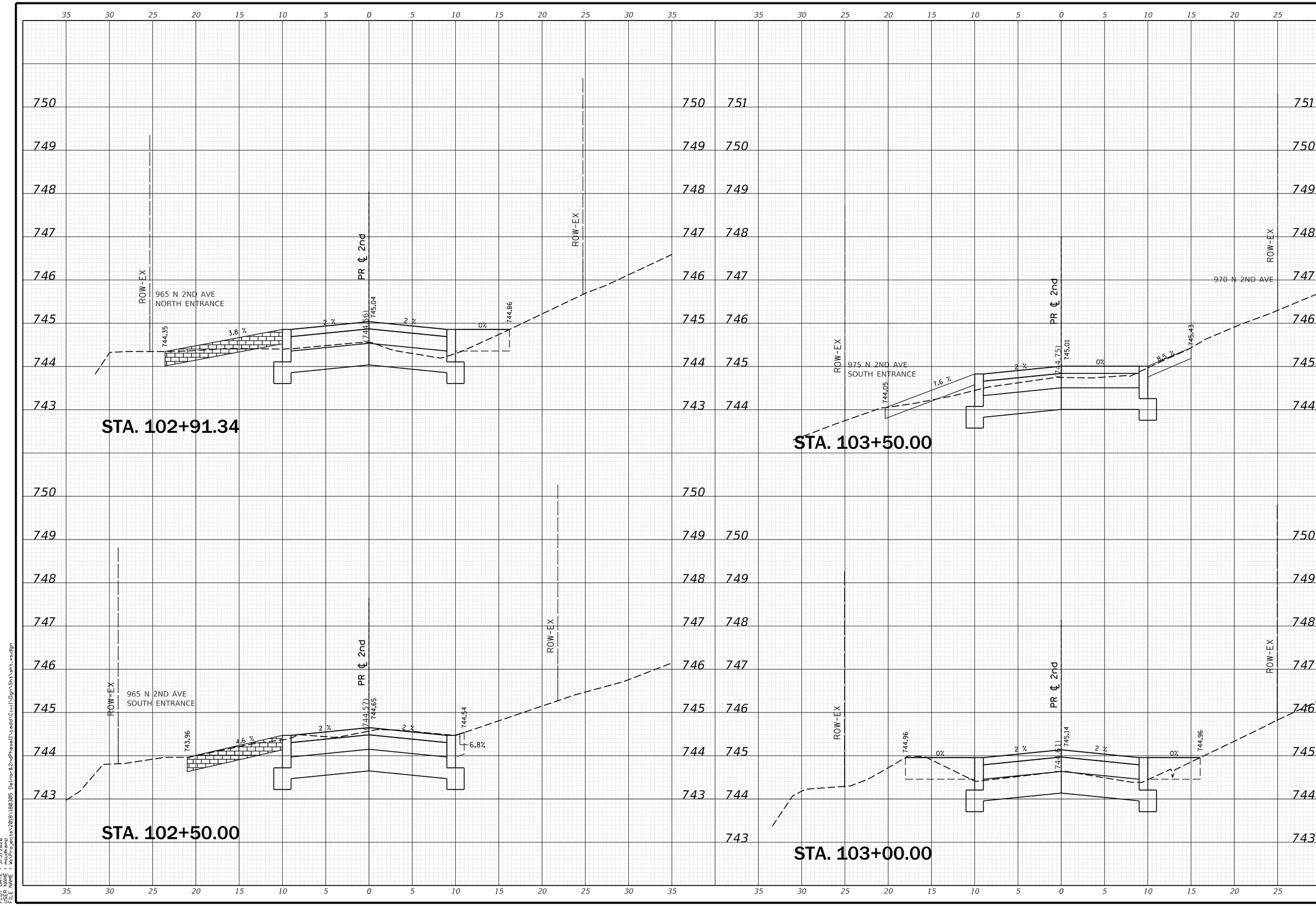

TITLE: N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS
N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN.
DWN.
CHKD.
SCALE :

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. XS3
SHEET
43 OF 52

PLOT DATE = 3/5/2020
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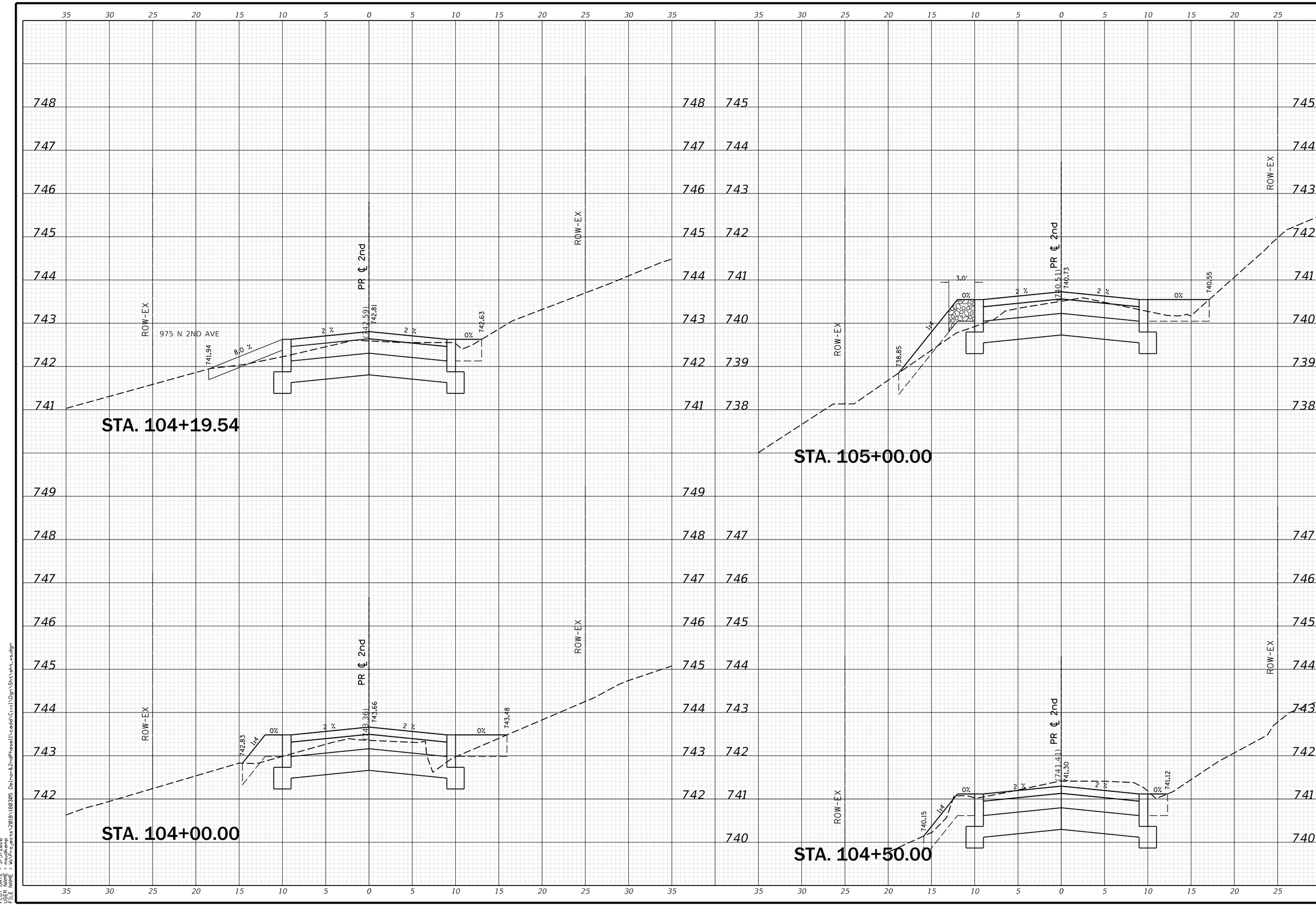

TITLE: N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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2 EAST MAIN STREET
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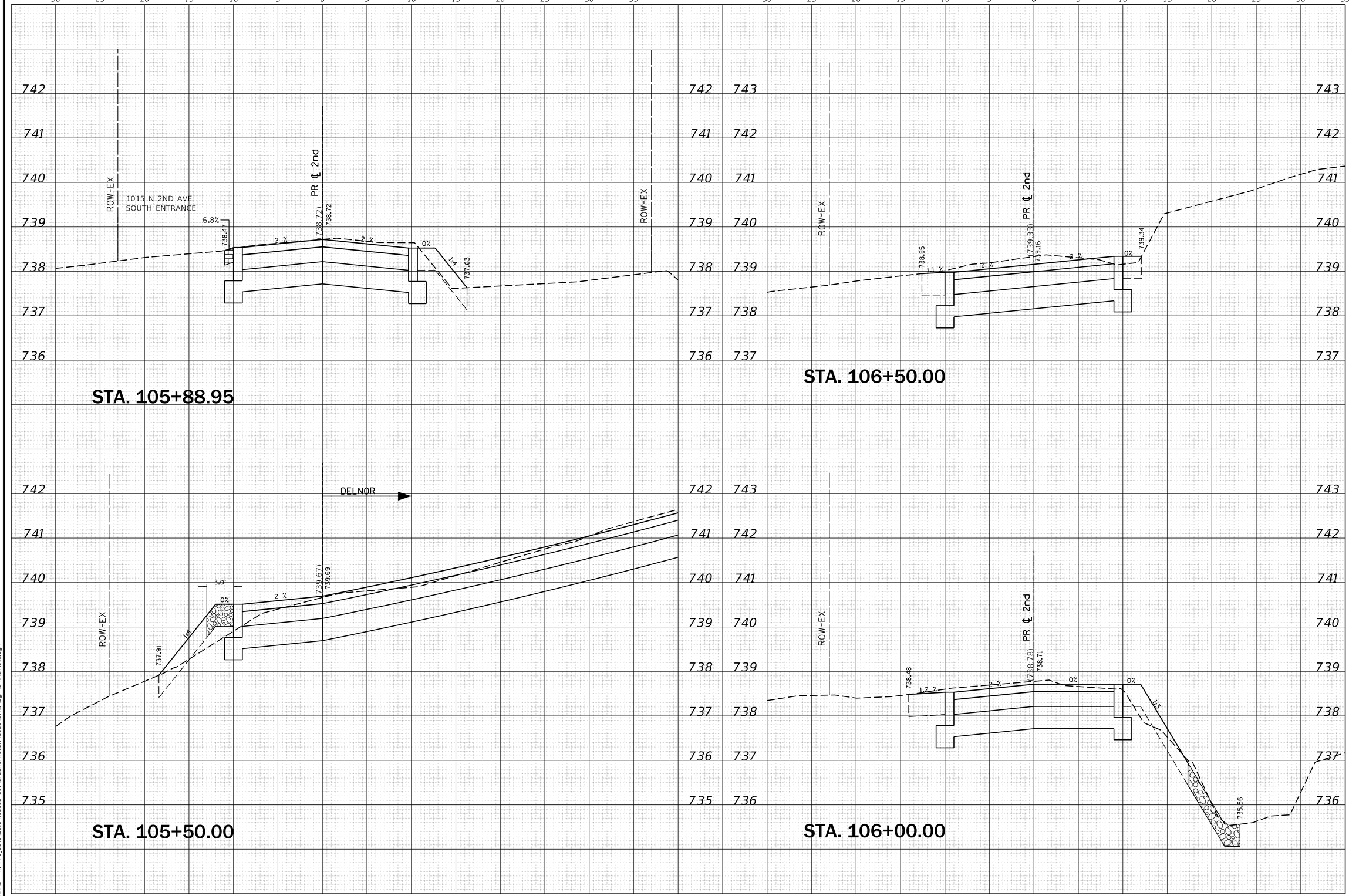
PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. XS4
SHEET
44 OF 52

PLOT DATE = 3/5/2020
USER NAME = wbkengineering
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_xs.dgn



NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN.
DWN.
CHKD.
SCALE :

TITLE
N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

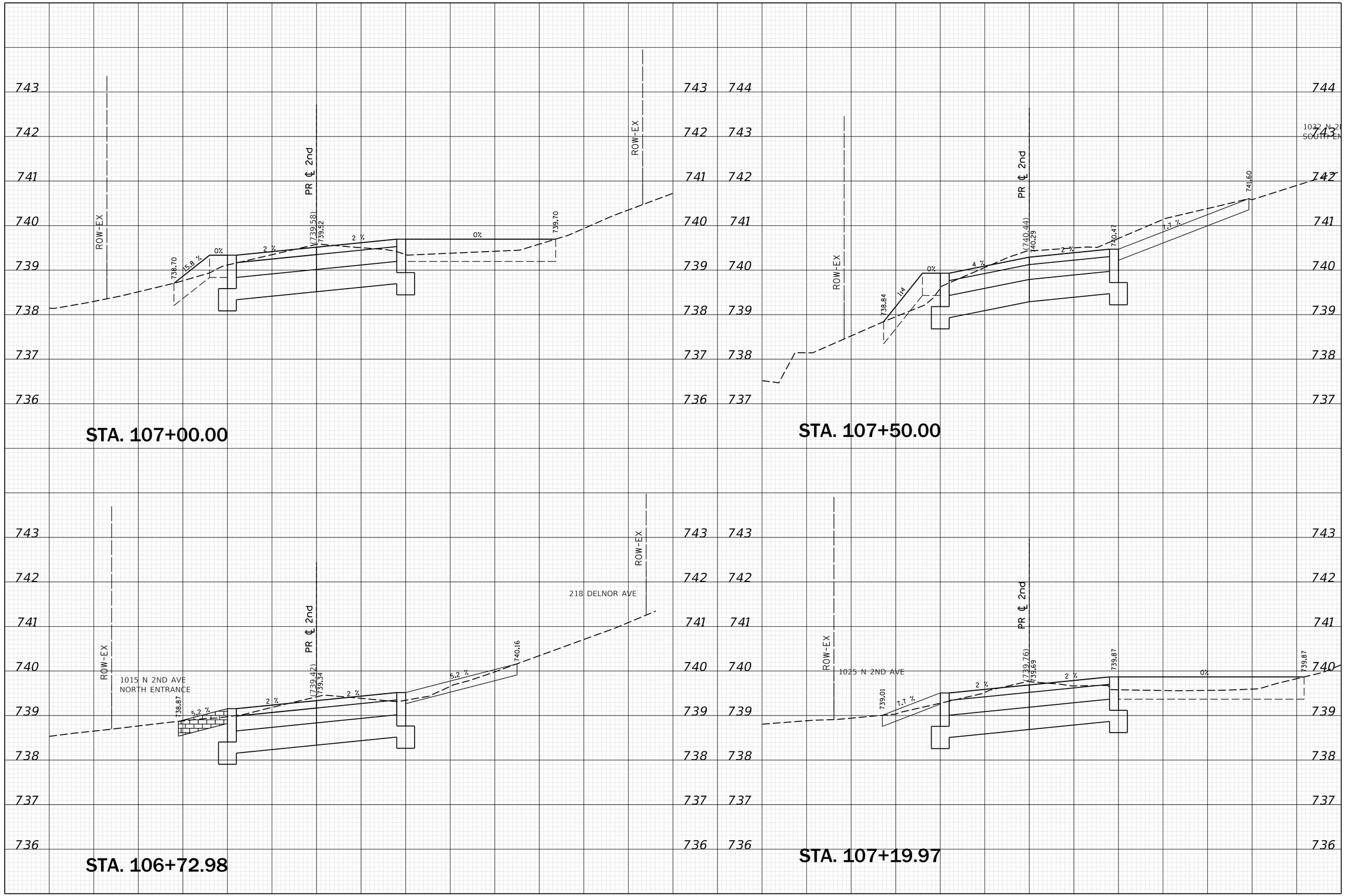
CROSS SECTIONS N 2ND AVENUE

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **XS5**
SHEET
45 OF 52

PLOT DATE = 3/5/2020
USER NAME = eduardo
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_xs.dgn



N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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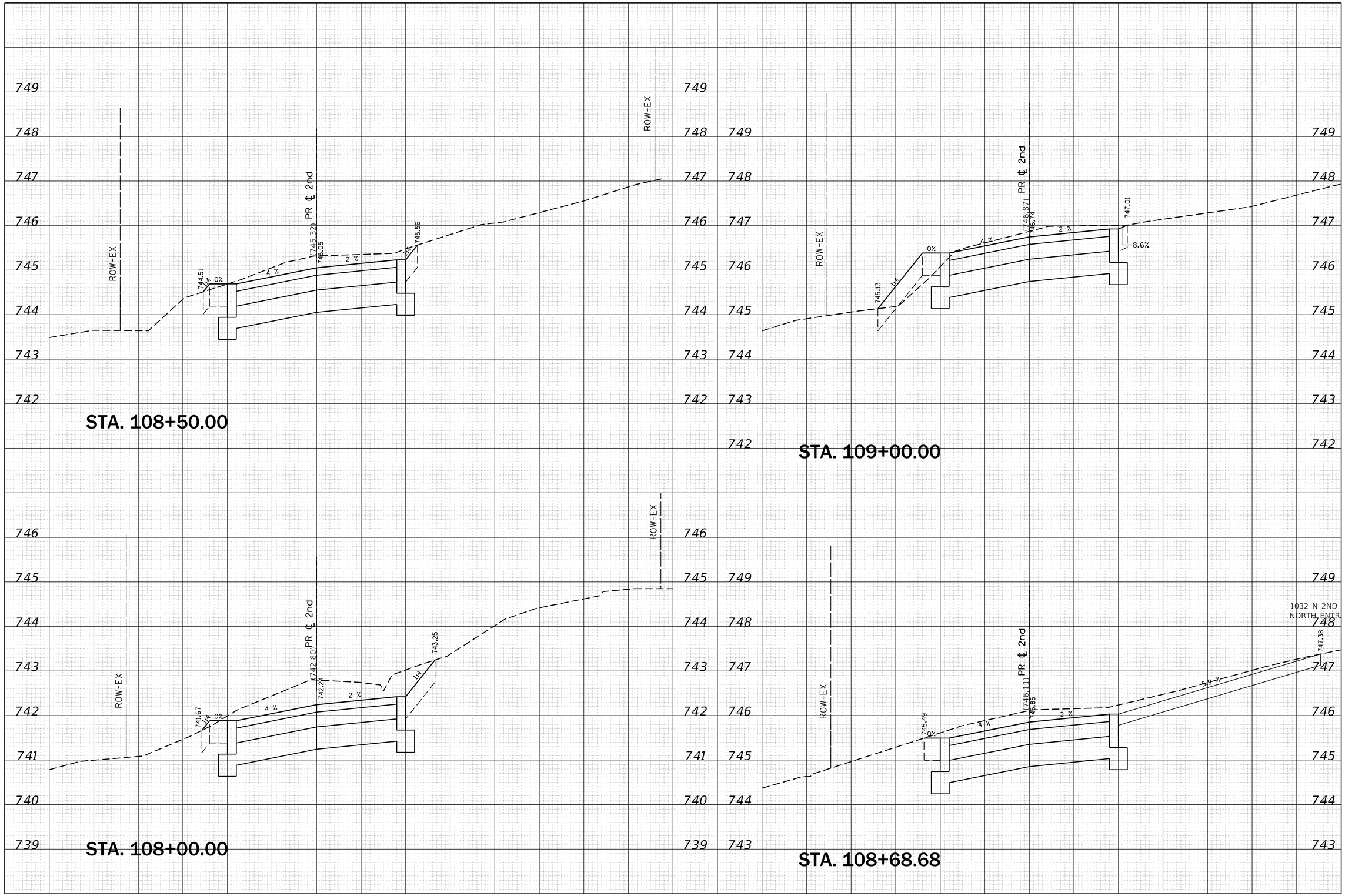
DSGN.
DWN.
CHKD.
SCALE :

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBK engineering
WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **XS6**
SHEET
46 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwoodrow
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_xs.dgn



N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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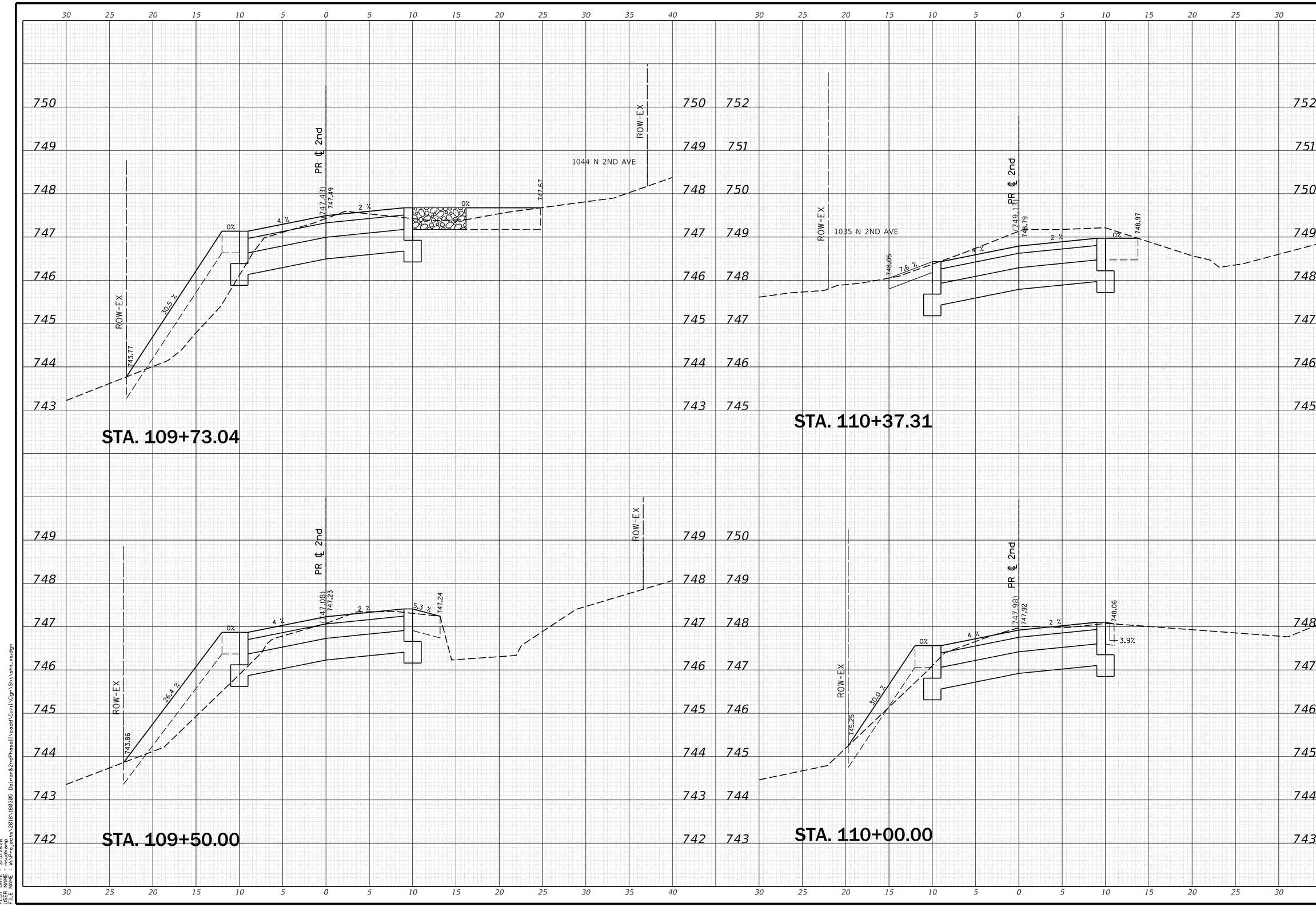
DSGN.
DWN.
CHKD.
SCALE :

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755
WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **XS7**
SHEET
47 OF 52

PLOT DATE = 3/5/2020
USER NAME = wbkengineering
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_xs.dgn



TITLE: N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN.
DWN.
CHKD.
SCALE :

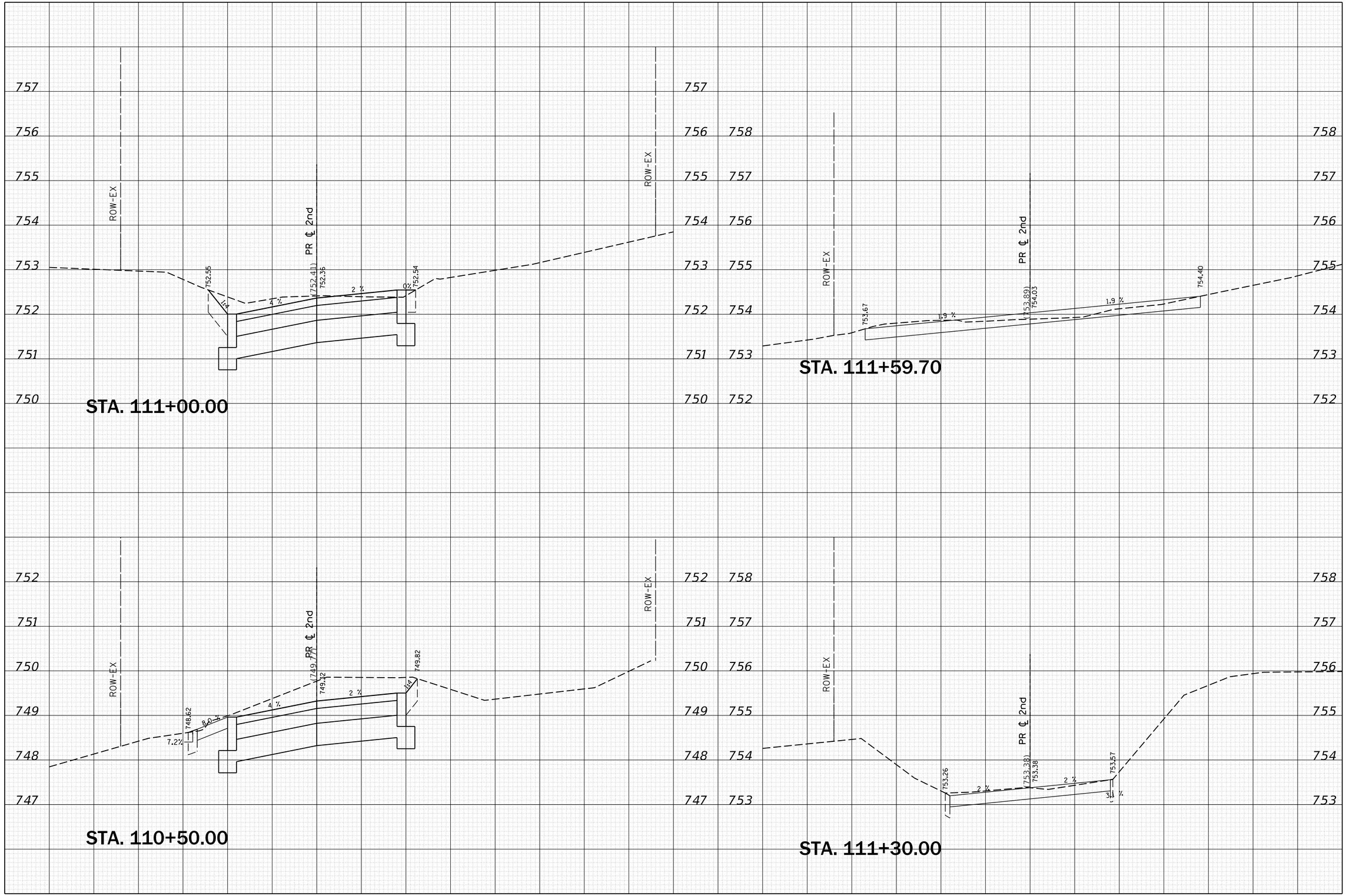
CLIENT : CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. XS8
SHEET
48 OF 52

PLOT DATE = 3/5/2020
USER NAME = mbenedetto
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_xs.dgn



N 2ND AVE & DELNOR AVE
UTILITY IMPROVEMENTS

CROSS SECTIONS
N 2ND AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN.
DWN.
CHKD.
SCALE :

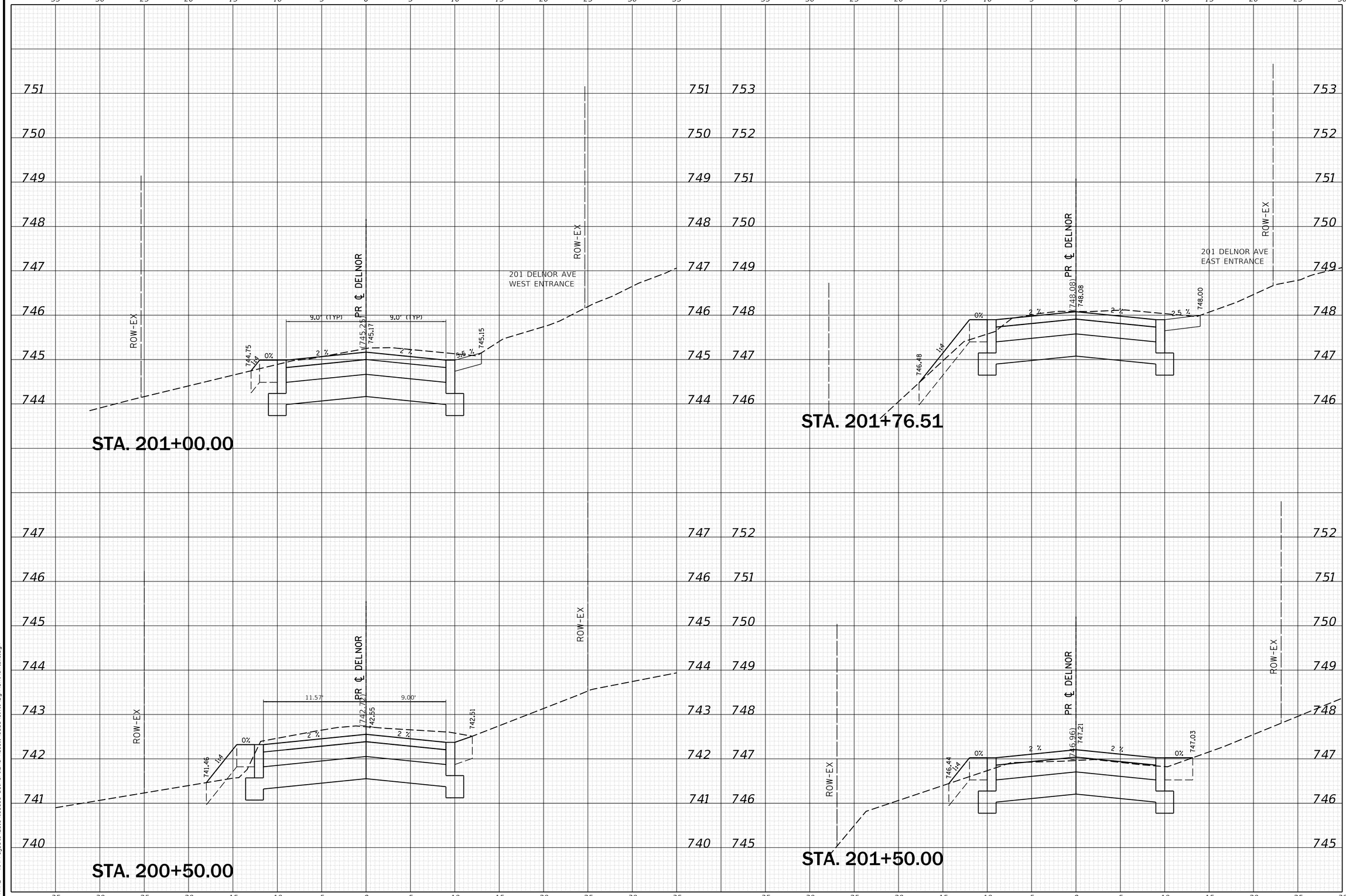
CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. XS9
SHEET

PLOT DATE = 3/5/2020
USER NAME = mmcdonald
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_xs.dgn



N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS DELNOR AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
2	3/2/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN.
DWN.
CHKD.
SCALE :

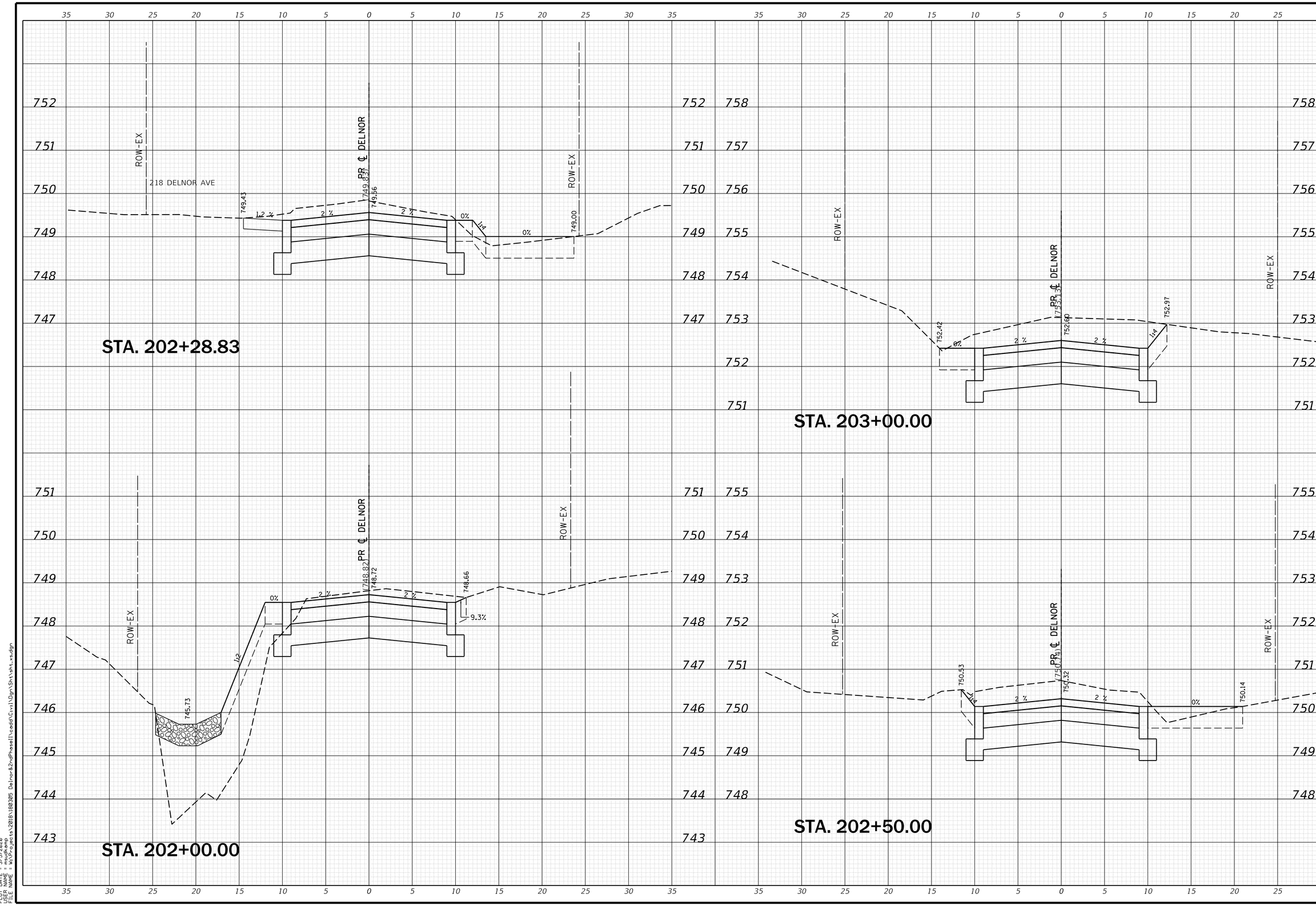
CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **XS10**
SHEET
50 OF 52

PLOT DATE = 3/5/2020
USER NAME = mbrown
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_xs.dgn



TITLE: N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS DELNOR AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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DSGN.
DWN.
CHKD.
SCALE :

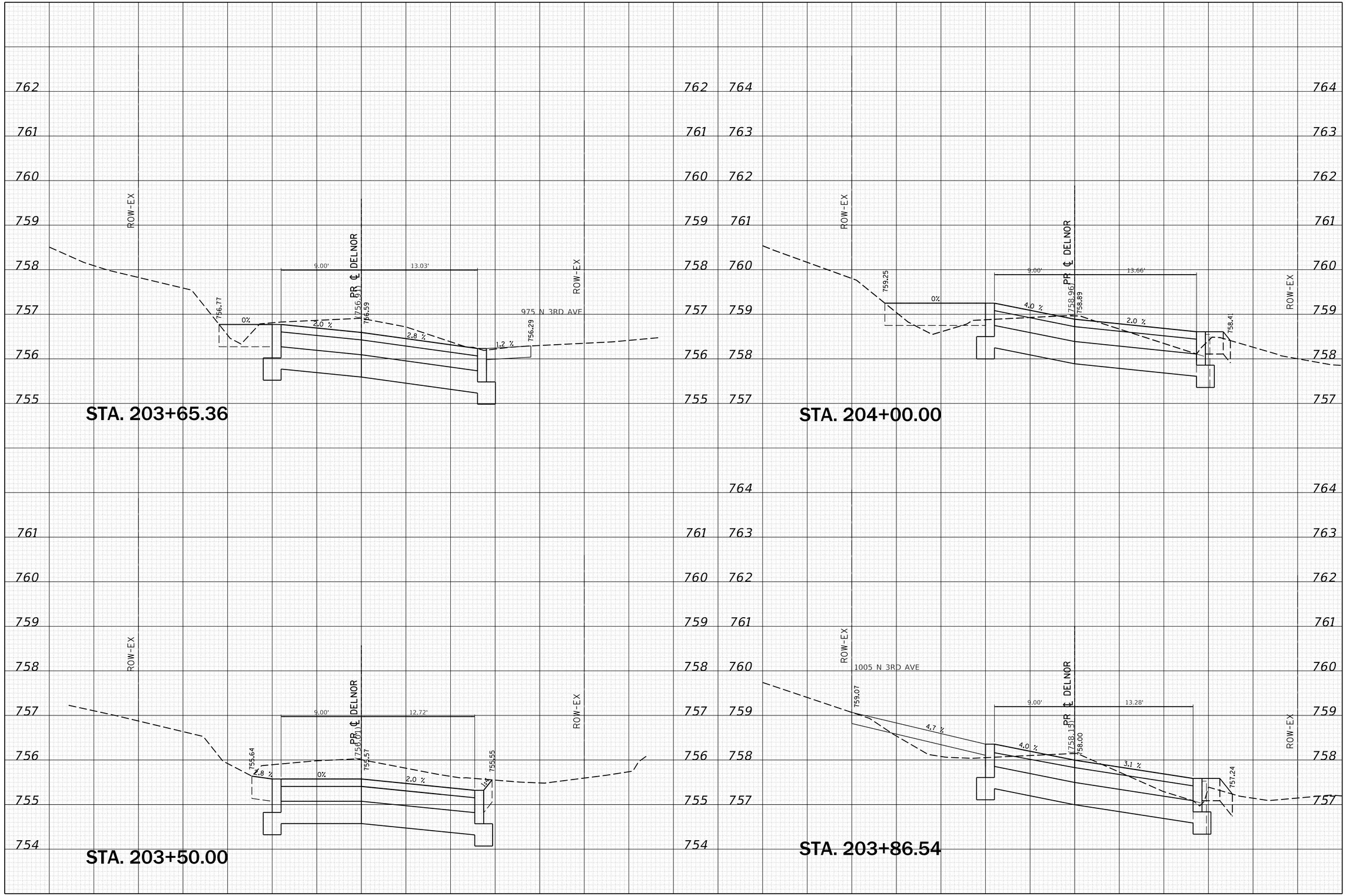
CLIENT : CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

WBK engineering

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. XS11
SHEET
51 OF 52

PLOT DATE = 3/5/2020
USER NAME = mwebster
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhase1\cadd\Civil\Dgn\Sht\sht_xs.dgn



N 2ND AVE & DELNOR AVE UTILITY IMPROVEMENTS

CROSS SECTIONS DELNOR AVENUE

NO.	DATE	NATURE OF REVISION
1	2/21/20	PER CITY OF ST. CHARLES COMMENTS
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DWN.
CHKD.
SCALE :

CLIENT :
CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

WBKENGINEERING LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

PROJECT NO. 18-0305
DATE : 3/4/2020
DRAWING NO. **XS12**
SHEET
52 OF 52

PLOT DATE = 3/5/2020
USER NAME = mmoreno
FILE NAME = W:\Projects\2018\180305 Delnor&2ndPhaseII\cadd\Civil\Dgn\Sht\sht_xs.dgn