

# CITY OF WINDSOR HEIGHTS, IOWA

## CONSTRUCTION PLANS FOR

# NORTH WALNUT CREEK STREAMBANK RESTORATION

WINDSOR HEIGHTS, IA

APRIL 2020

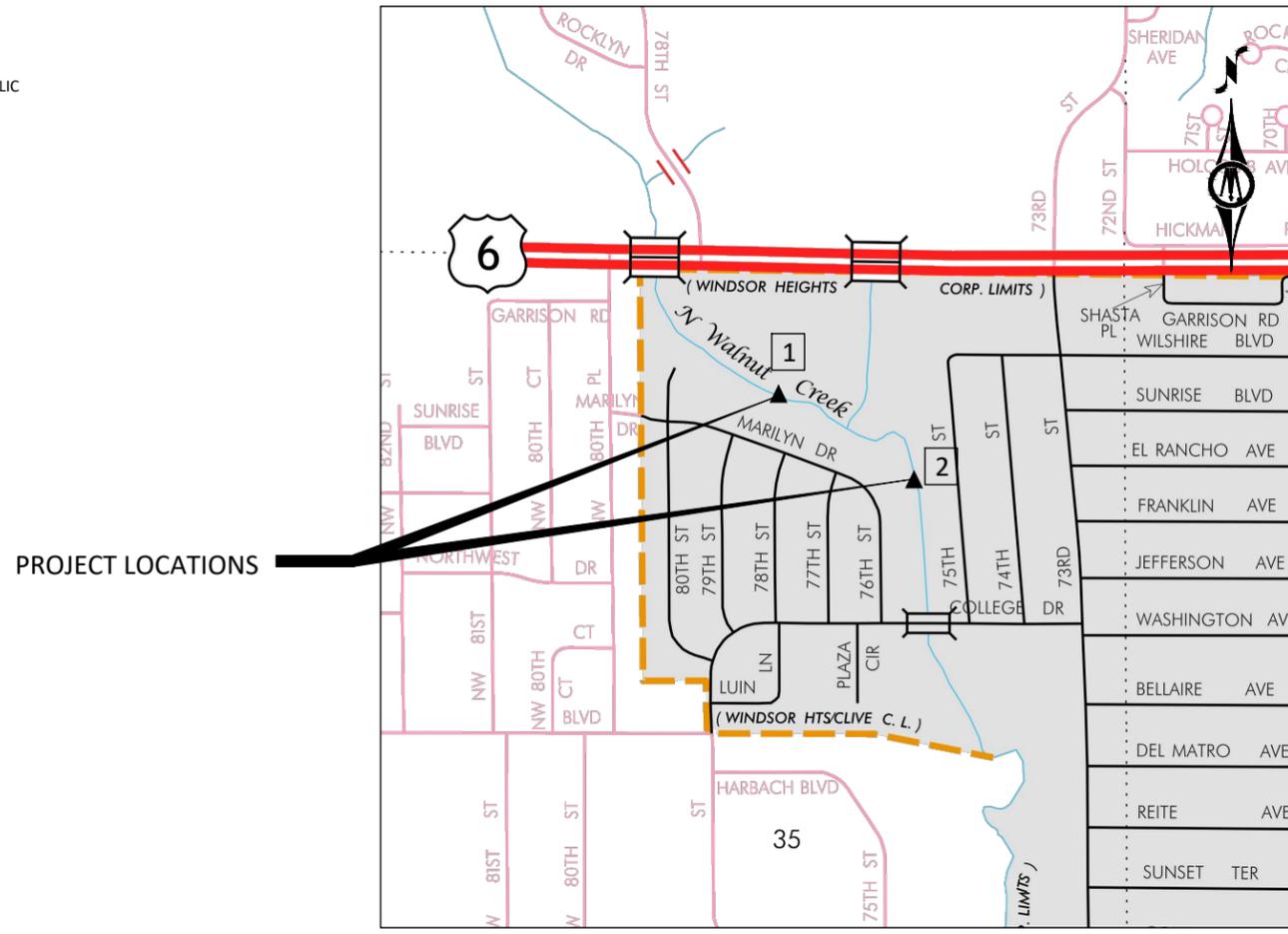
### GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE "IOWA STATEWIDE URBAN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS".

IOWA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION", VERSION OCTOBER 2015 AND ALL CURRENT GENERAL SUPPLEMENTAL SPECIFICATIONS AND MATERIALS INSTRUCTIONAL MEMORANDUM SHALL GOVERN AS REFERENCED.

MUTCD 2009 AS ADOPTED BY IOWA DEPARTMENT OF TRANSPORTATION.

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW, NOTIFY IOWA ONE CALL 1-800-292-8989



MAP OF THE CITY OF WINDSOR HEIGHTS POLK COUNTY, IA

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PRELIMINARY NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

JUSTIN L. ERNST, P.E.  
REG. NO. 23753 DATE XX-XX-2020  
MY LICENSE RENEWAL DATE IS Dec. 31, 2021  
PAGES OR SHEETS COVERED BY THIS SEAL:  
ALL SHEET EXCEPT MWM SHEETS

CITY OF WINDSOR HEIGHTS, IOWA	SHEET
NORTH WALNUT CREEK STREAMBANK RESTORATION	A.1
TITLE SHEET	

**EXISTING TOPOGRAPHIC SYMBOLS**

	ACCESS GRATE		SIGN TRAFFIC
	AIR CONDITION UNIT		SIGNAL CONTROL CABINET
	ANTENNA		SOIL BORING
	AUTO SPRINKLER CONNECTION		SIREN
	BARRICADE PERMANENT		TELEPHONE BOOTH
	BASKETBALL POST		TILE INLET
	BENCH		TILE OUTLET
	BIRD FEEDER		TILE RISER
	BUSH-DECIDUOUS		TRANSFORMER-ELECTRIC
	CATCH BASIN RECTANGULAR CASTING		TREE-CONIFEROUS
	CATCH BASIN CIRCULAR CASTING		TREE-DEAD
	CURB STOP		TREE-DECIDUOUS
	CLEAN OUT		TREE STUMP
	CULVERT END		TRAFFIC ARM BARRIER
	DRINKING FOUNTAIN		TRAFFIC SIGNAL
	DOWN SPOUT		TRASH CAN
	FILL PIPE		UTILITY MARKER
	FIRE HYDRANT		VALVE
	FLAG POLE		VALVE POST INDICATOR
	FLARED END / APRON		VALVE VAULT
	FUEL PUMP		VENT PIPE
	GRILL		WATER SPIGOT
	GUY WIRE ANCHOR		WELL
	HANDHOLE		WETLAND DELINEATED MARKER
	HANDICAP SPACE		WETLAND
	IRRIGATION SPRINKLER HEAD		YARD LIGHT
	IRRIGATION VALVE BOX		WET WELL
	LIFT STATION CONTROL PANEL		YARD HYDRANT
	LIFT STATION		
	MAILBOX		
	MANHOLE-COMMUNICATION		
	MANHOLE-ELECTRIC		
	MANHOLE-GAS		
	MANHOLE-HEAT		
	MANHOLE-SANITARY SEWER		
	MANHOLE-STORM SEWER		
	MANHOLE-UTILITY		
	MANHOLE-WATER		
	METER		
	ORDER MICROPHONE		
	PARKING METER		
	PAVEMENT MARKING		
	PEDESTAL-COMMUNICATION		
	PEDESTAL-ELECTRIC		
	PEDESTRIAN PUSH BUTTON		
	PICNIC TABLE		
	POLE-LIGHT		
	POLE-UTILITY		
	POST		
	RAILROAD SIGNAL POLE		
	REGULATION STATION GAS		
	SATELLITE DISH		

**PROPOSED TOPOGRAPHIC SYMBOLS**

	CLEANOUT
	MANHOLE
	LIFT STATION
	STORM SEWER CIRCULAR CASTING
	STORM SEWER RECTANGULAR CASTING
	STORM SEWER FLARED END / APRON
	STORM SEWER OUTLET STRUCTURE
	STORM SEWER OVERFLOW STRUCTURE
	CURB BOX
	FIRE HYDRANT
	WATER VALVE
	WATER REDUCER
	WATER BEND
	WATER TEE
	WATER CROSS
	WATER SLEEVE
	WATER CAP / PLUG
	RIP RAP
	DRAINAGE FLOW

**SURVEY SYMBOLS**

	BENCH MARK LOCATION
	CONTROL POINT
	MONUMENT IRON FOUND
	CAST IRON MONUMENT

**EXISTING TOPOGRAPHIC LINES**

	RETAINING WALL
	FENCE
	FENCE-DECORATIVE GUARD RAIL
	TREE LINE
	BUSH LINE

**SURVEY LINES**

	CONTROLLED ACCESS BOUNDARY
	CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	SETBACK LINE
	SECTION LINE
	QUARTER LINE
	SIXTEENTH LINE

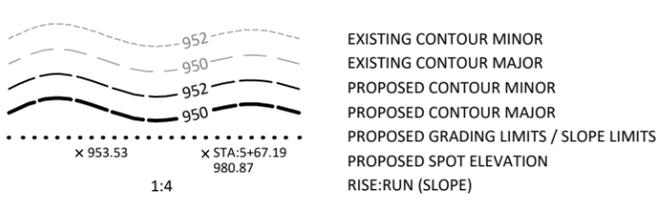
**EXISTING UTILITY LINES**

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE

**PROPOSED UTILITY LINES**

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE
	PIPE CASING

**GRADING INFORMATION**



**HATCH PATTERNS**

	ASPHALT		GRAVEL
	CONCRETE		

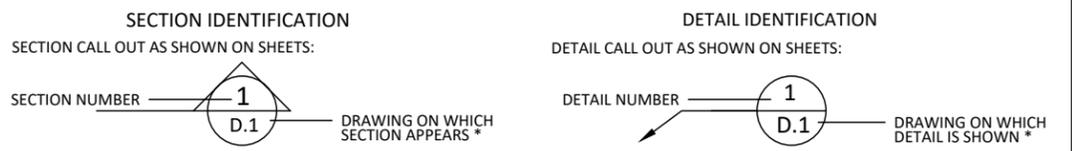
**EXISTING PRIVATE UTILITY LINES**

NOTE:  
 EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY **IOWA ONE CALL**, 1-800-292-8989.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D UNLESS OTHERWISE NOTED. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA"

	UNDERGROUND FIBER OPTIC
	UNDERGROUND ELECTRIC
	UNDERGROUND GAS
	UNDERGROUND COMMUNICATION
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATION
	OVERHEAD UTILITY

**SECTION AND DETAIL IDENTIFICATION**



\* NOTE:  
 IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON THE SAME DRAWING, DRAWING NUMBER IS REPLACED BY A LINE.

**ABBREVIATIONS**

A	ALGEBRAIC DIFFERENCE	GRAV	GRAVEL	SCH	SCHEDULE
ADJ	ADJUST	GU	GUTTER	SERV	SERVICE
ALT	ALTERNATE	GV	GATE VALVE	SHLD	SHOULDER
B-B	BACK TO BACK	HDPE	HIGH DENSITY POLYETHYLENE	STA	STATION
BLDG	BUILDING	HH	HANDHOLE	STD	STANDARD
BMP	BEST MANAGEMENT PRACTICE	HP	HIGH POINT	STM	STORM SEWER
BR	BEGIN RADIUS	HWL	HIGH WATER LEVEL	TC	TOP OF CURB
BV	BUTTERFLY VALVE	HYD	HYDRANT	TEMP	TEMPORARY
CB	CATCH BASIN	I	INVERT	TNH	TOP NUT HYDRANT
C&G	CURB AND GUTTER	K	CURVE COEFFICIENT	TYP	TYPICAL
CIP	CAST IRON PIPE	L	LENGTH	VCP	VITRIFIED CLAY PIPE
CIPP	CURED-IN-PLACE PIPE	LO	LOWEST OPENING	VERT	VERTICAL
CL	CENTER LINE	LP	LOW POINT	VPC	VERTICAL POINT OF CURVE
CL	CLASS	LT	LEFT	VPI	VERTICAL POINT OF INTERSECTION
CMP	CORRUGATED METAL PIPE	MH	MANHOLE	VPT	VERTICAL POINT OF TANGENT
CO	CLEAN OUT	MIN	MINIMUM	WM	WATERMAIN
C.O.	CHANGE ORDER	MR	MID RADIUS		
COMM	COMMUNICATION	NMC	NON-METALLIC CONDUIT		
CON	CONCRETE	NTS	NOT TO SCALE	AC	ACRES
CSP	CORRUGATED STEEL PIPE	NWL	NORMAL WATER LEVEL	CF	CUBIC FEET
CLVT	CULVERT	OHW	ORDINARY HIGH WATER LEVEL	CV	COMPACTED VOLUME
DIA	DIAMETER	PC	POINT OF CURVE	CY	CUBIC YARD
DIP	DUCTILE IRON PIPE	PCC	PORTLAND CEMENT CONCRETE	EA	EACH
DWY	DRIVEWAY	PED	PEDESTRIAN, PEDESTAL	EV	EXCAVATED VOLUME
E	EXTERNAL CURVE DISTANCE	PERF	PERFORATED PIPE	LB	POUND
EASE	EASEMENT	PERM	PERMANENT	LF	LINEAR FEET
ELEC	ELECTRIC	PI	POINT OF INTERSECTION	LS	LUMP SUM
ELEV	ELEVATION	PL	PROPERTY LINE	LV	LOOSE VOLUME
EOF	EMERGENCY OVERFLOW	PRC	POINT OF REVERSE CURVE	SF	SQUARE FEET
ER	END RADIUS	PT	POINT OF TANGENT	SV	STOCKPILE VOLUME
EX	EXISTING	PVC	POLYVINYL CHLORIDE PIPE	SY	SQUARE YARD
FES	FLARED END SECTION	PVMT	PAVEMENT		
F-F	FACE TO FACE	R	RADIUS		
FF	FINISHED FLOOR	RCP	REINFORCED CONCRETE PIPE		
F&I	FURNISH AND INSTALL	RET	RETAINING		
FM	FORCEMAIN	ROW	RIGHT-OF-WAY		
FO	FIBER OPTIC	RSC	RIGID STEEL CONDUIT		
F.O.	FIELD ORDER	RT	RIGHT		
GRAN	GRANULAR	SAN	SANITARY SEWER		

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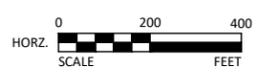
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CITY OF WINDSOR HEIGHTS, IOWA	
NORTH WALNUT CREEK STREAMBANK RESTORATION	
LEGEND	

NOTES:  
 1. SEED ALL DISTURBED AREA (INCIDENTAL)



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CITY OF WINDSOR HEIGHTS, IOWA  
 NORTH WALNUT CREEK STREAMBANK RESTORATION  
 ACCESS ROUTES

SHEET  
 A.3

**STANDARD CONSTRUCTION NOTES:**

- ALL IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE 2020 EDITION OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) AND SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES. THE CONTRACTOR SHALL HAVE A COMPLETE SET OF THE CURRENT SUDAS STANDARD SPECIFICATIONS ON SITE DURING ALL CONSTRUCTION ACTIVITIES.
- ANY WORK THAT IS DETERMINED TO BE DEFECTIVE BY THE ENGINEER SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH SUDAS SECTION 1050. FAILURE TO REMOVE DEFECTIVE WORK MAY RESULT IN SUSPENSION OF OPERATIONS AND/OR WITHHOLDING OF PAYMENTS UNTIL DEFECTIVE WORK HAS BEEN REMOVED AND REPLACED.
- PRIOR TO MOBILIZING OFF OF THE JOB SITE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO REQUEST A FINAL INSPECTION IN ACCORDANCE WITH SUDAS SECTION 1050.
- THE CONTRACTOR SHALL PROCURE ALL NECESSARY PERMITS AND LICENSES IN ACCORDANCE WITH SUDAS SECTION 1070.
- THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY AND COMPLYING WITH ALL CURRENT AND FUTURE FEDERAL AND STATE OSHA REQUIREMENTS IN ACCORDANCE WITH SUDAS SECTION 1070.
- LIMITS OF CONSTRUCTION ARE WITHIN THE CITY RIGHT OF WAY, UNLESS SHOWN OTHERWISE IN THE CONSTRUCTION DRAWINGS. WORK SHALL BE COMPLETED IN THE LIMITS OF CONSTRUCTION AND IN ACCORDANCE WITH SUDAS SECTION 1070.
- THE CONTRACTOR SHALL UPDATE THE TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH SUDAS SECTION 1070, IF CONSTRUCTION ACTIVITIES DEVIATE FROM STAGING PLAN PROVIDED. ANY TRAFFIC CONTROL DEVICES OR SAFETY EQUIPMENT NEEDED TO CONSTRUCT THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION PHASING AND TRAFFIC CONTROL PLAN WITH PLANNED DETOURS TO THE CITY OF WEST DES MOINES PUBLIC SERVICES FOR APPROVAL BEFORE THE START OF ANY CONSTRUCTION ACTIVITIES.
- THE LOCATION OF ALL AERIAL AND UNDERGROUND UTILITIES MAY NOT BE INDICATED ON THESE PLANS. WORK SHALL BE COMPLETED IN ACCORDANCE WITH SUDAS SECTION 1070. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DAMAGE TO EXISTING UTILITIES.
- IN ACCORDANCE WITH SUDAS SECTION 1070, THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ADEQUATE PROTECTION OF ALL ITS WORK FROM DAMAGE AND SHALL PROTECT THE JURISDICTION'S PROPERTY AND ADJACENT PRIVATE PROPERTY FROM INJURY OR LOSS ARISING IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL REPAIR OR RESTORE ANY SUCH DAMAGE, INJURY, OR LOSS TO JURISDICTION PROPERTY OR ADJACENT PROPERTY. THE CONTRACTOR SHALL PROTECT TREES AND OTHER PROPERTY NOT MARKED FOR REMOVAL. THE CONTRACTOR SHALL SALVAGE ANY LANDSCAPING WITHIN THE RIGHT OF WAY UPON REQUEST BY THE ADJACENT PROPERTY OWNERS.
- THE CONTRACTOR SHALL PRESERVE OR REPLACE ALL PROPERTY MONUMENTS ON THE PROJECT SITE IN ACCORDANCE WITH IOWA STATE CODE SECTION 355.6A AND SUDAS SECTION 1070.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SITE CLEANLINESS. UPON REQUEST BY THE ENGINEER, THE CONTRACTOR SHALL, AT ITS EXPENSE, CLEANUP AND REMOVE ALL REFUSE AND UNUSED MATERIALS OF ANY KIND RESULTING FROM THE WORK INCLUDING CLEANING AND SWEEPING OF ADJACENT STREETS. UPON FAILURE TO DO SO WITHIN THREE WORKING DAYS AFTER SUCH REQUEST BY THE ENGINEER, THE WORK MAY BE DONE BY THE JURISDICTION AND THE COST THERE OF CHARGED TO THE CONTRACTOR AND DEDUCTED FROM ITS FINAL PAYMENT IN ACCORDANCE WITH SUDAS SECTION 1070.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A PROGRESS SCHEDULE THAT WILL ENSURE THE COMPLETION OF THE PROJECT WITHIN THE TIME SPECIFIED. IF IT APPEARS THE RATE OF PROGRESS IS SUCH THAT THE CONTRACT WILL NOT BE COMPLETED WITHIN THE TIME ALLOWED, OR IF THE WORK IS NOT BEING EXECUTED IN A SATISFACTORY AND WORKMANLIKE MANNER, THE ENGINEER MAY ORDER THE CONTRACTOR TO TAKE SUCH STEPS AS NECESSARY TO COMPLETE THE WORK AS SPECIFIED IN THE CONTRACT IN ACCORDANCE WITH SUDAS SECTION 1080.
- IF PROJECT IS SUBSTANTIALLY COMPLETED AND ONLY CLEANUP AND MINOR WORK ITEMS REMAIN FOR MORE THAN 30 CALENDAR DAYS, THE ENGINEER MAY RESTART CHARGING OF WORKING DAYS OR CHARGE PENALTIES EQUAL TO THE CONTRACT LIQUIDATED DAMAGES UNTIL ALL CORRECTIVE ACTION HAS BEEN COMPLETED IN ACCORDANCE WITH SUDAS SECTION 1080.

**UTILITY COORDINATION NOTES:**

- THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT (800) 292-8989 TO LOCATE EXISTING UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- ANTICIPATED UTILITY CONFLICTS HAVE BEEN IDENTIFIED AND EACH RESPECTIVE UTILITY OWNER HAS BEEN INFORMED OF THE POTENTIAL CONFLICTS. THE CONTRACTOR SHALL PROTECT ALL UTILITIES WITHIN THE PROJECT SITE.
- IF A CONFLICT IS DISCOVERED BY THE CONTRACTOR, NOTIFY THE ENGINEER IMMEDIATELY AND COORDINATE WITH OWNER OF UTILITY TO RESOLVE CONFLICT.

**PROJECT NOTES:**

- CONTRACTOR SHALL PROPERLY SECURE PROJECT SITE AT THE END OF EACH DAY.
- CONTRACTOR OPERATIONS CREATING OBJECTIONABLE LEVELS OF NOISE SHALL NOT BEGIN PRIOR TO 7:00 AM
- IN ORDER TO AVOID ANY UNNECESSARY SURFACE BREAKS OR PREMATURE SPALLING, THE CONTRACTOR IS CAUTIONED TO EXERCISE EXTREME CARE WHEN PERFORMING ANY OF THE NECESSARY SAW CUTTING OPERATIONS FOR THE PROPOSED PAVEMENT REMOVAL. ADJACENT PAVEMENT THAT IS CHIPPED OR DAMAGED DUE TO SAW OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S COST IN ACCORDANCE WITH THE PROJECT SPECIFICATION DETAILS FOR STREET EXCAVATION AND PAVEMENT REPLACEMENT. ALL SAW CUTS ADJACENT TO EXISTING PAVEMENT AND CURBS SHALL BE FULL DEPTH.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NOT TO DAMAGE ADJACENT PAVEMENT, SIDEWALKS, DRIVES, MEDIANS, CURBS, STRUCTURES AND OTHER AREAS NOT DESIGNATED AS PART OF THE PATCHING WORK AREA. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO AREAS NOT DESIGNATED AS PART OF THE PATCHING WORK AT NO COST TO THE OWNER.

**TRAFFIC CONTROL NOTES:**

- CONTRACTOR RESPONSIBLE TO OBTAIN ANY PERMITS FOR TRAFFIC CONTROL DEVICES FOR ALL AFFECTED AGENCIES.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED TRAFFIC CONTROL PLANS FOR ANY OTHER STAGES THAT MAY BE REQUIRED. CHANGES TO THE STAGING PLAN MUST BE APPROVED BY THE ENGINEER. ADJUSTMENT TO ADVANCED SIGNAGE AND BARRICADING AS REQUIRED TO COMBINE STAGES ARE SUBJECT TO ENGINEER APPROVAL AND ARE CONSIDERED INCIDENTAL.
- THE CONTRACTOR SHALL COVER ALL CONFLICTING EXISTING SIGNAGE (INCIDENTAL).
- TRAIL CLOSURE SIGNAGE SHALL BE FURNISHED, INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
- SUBMIT DETAILED TRAFFIC CONTROL PLANS FOR ALL WORK LOCATIONS FOR APPROVAL PRIOR TO PRECONSTRUCTION MEETING. ALL TRAFFIC CONTROL PLANS, DEVICES, AND PROCEDURES SHALL CONFORM TO THE CURRENT VERSION OF THE MUTCD.
- ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR.
- PORTABLE MOUNTINGS FOR WARNING SIGNS MAY BE USED FOR TEMPORARY INSTALLATIONS OF 3 DAYS OR LESS. ALL OTHER TRAFFIC CONTROL SHALL BE POST MOUNTED.
- THE PROPOSED SIGNAGE MAY BE MODIFIED TO MEET FIELD CONDITIONS, PREVENT OBSTRUCTIONS AND TO ACCOMMODATE CONSTRUCTION SCHEDULING UPON APPROVAL OF THE PROJECT ENGINEER.
- SIGNAGE MAINTENANCE SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL AND REQUIRED AS DIRECTED BY THE ENGINEER.
- ALL CONSTRUCTION SIGNS SHALL BE DIAMOND GRADE FLUORESCENT ORANGE OR WHITE V.I.P. SHEETING OR EQUIVALENT. (IOWA DOT TYPE VII SHEETING).
- THE CONTRACTOR SHALL REMOVE AND REINSTALL ALL CITY SIGNS THAT WILL BE IN THE WAY.
- AT THE TIME OF INITIAL SETUP OR AT THE TIME OF MAJOR STAGE CHANGES, 100 PERCENT OF EACH TYPE OF DEVICE (SIGNS, CONES, TUBULAR MARKERS, DRUMS, BARRICADES, VERTICAL PANELS, CHANGEABLE MESSAGE SIGNS, AND PAVEMENT MARKINGS) SHALL BE CLASSIFIED AS ACCEPTABLE BY THE REQUIREMENT OF THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA), "QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES 1992." THROUGHOUT THE DURATION OF THE PROJECT, UNACCEPTABLE DEVICES OR SITUATIONS THAT ARE FOUND ON THE JOBSITE AS DETERMINED BY BEFORE MENTIONED PUBLICATION SHALL BE REPLACED OR THE SITUATION CORRECTED WITHIN 12 HOURS OF INITIAL NOTIFICATIONS BY THE ENGINEER.
- THE LOCATION FOR STORAGE OF EQUIPMENT BY THE CONTRACTOR DURING NONWORKING HOURS SHALL BE AS APPROVED BY THE ENGINEER, AND THE CONTRACTOR SHALL PROVIDE A WRITTEN AGREEMENT WITH THE PROPERTY OWNER.
- INSTALL DYNAMIC MESSAGE SIGNS THREE WEEKDAYS PRIOR TO TRAIL CLOSURE IN BOTH DIRECTIONS. MESSAGE SHALL BE APPROVED BY ENGINEER.

**TRAIL**

- THE CONTRACTOR SHALL PROVIDE APPROPRIATE SIGNAGE FOR TRAIL CLOSURES.
- REFER TO IOWA DOT STANDARD ROAD PLAN TC-601 FOR SIDEWALK CLOSURE INFORMATION AND STANDARDS.
- SIDEWALK TRAFFIC CONTROL SHALL REMAIN IN PLACE UNTIL TRAIL IS OPEN WITH NO EQUIPMENT PARKED ON IT AND TRAIL IS CLEAN.
- THE COST FOR TRAIL ACCOMMODATIONS IS INCIDENTAL TO THE COST OF TRAFFIC CONTROL.

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CITY OF WINDSOR HEIGHTS, IOWA		SHEET  C.1
NORTH WALNUT CREEK STREAMBANK RESTORATION		
GENERAL NOTES		

ESTIMATED PROJECT QUANTITIES					
ITEM NO.	ITEM CODE	ITEM	UNIT	QUANT	AS BUILT QUANT.
1	8030-108-A-0	TEMPORARY TRAFFIC CONTROL	LS	1	
2	11020-108-A-1	MOBILIZATION	LS	1	
3	12000-108-X-0	BANK RESTORATION 1	LS	1	
4	12000-108-X-1	BANK RESTORATION 2	LS	1	
5	12020-108-X-0	TRAIL PROTECTION	LS	1	

ESTIMATE REFERENCE INFORMATION		
ITEM NO.	ITEM CODE	DESCRIPTION
1	8030-108-A-0	TEMPORARY TRAFFIC CONTROL INSTALLATION, MAINTENANCE, AND REMOVAL OF TEMPORARY TRAFFIC CONTROL; INLCUDING TRAIL CLOSURE SIGNS AND CONSTRUTION FENCING.
2	11020-108-A-1	MOBILIZATION
3	12000-108-X-0	<u>BANK RESTORATION 1</u> ITEM INCLUDES ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL BANK RESOTRATION FOR LOCATION 1 AS DETAILED IN PLANS INCLUDING BUT NOT LIMITED TO WALL INSTALLATION, RIP RAP, ENGINEERING FABRIC, TREE & BRUSH REMOVAL , CABLE, GRADING, ACCESS ROAD AND SEEDING.
4	12000-108-X-1	<u>BANK RESTORATION 2</u> ITEM INCLUDES ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL BANK RESOTRATION FOR LOCATION 2 AS DETAILED IN PLANS INCLUDING BUT NOT LIMITED TO WALL INSTALLATION, RIP RAP, ENGINEERING FABRIC, TREE & BRUSH REMOVAL , CABLE, GRADING, ACCESS ROAD AND SEEDING.
5	12020-108-X-0	<u>TRAIL PROTECTION</u> CONTRACTOR SHALL PROVIDE AND INSTALL A MEANS OF PROTECTING THE EXISTING ASPHALT TRAIL FROM DAMAGE CAUSED BY CONSTRUCTIN EQUIPMENT. RECOMMNDDED PLACEMENT OF 3-INCH THICK LAYER OF WOOD CHIPS OVER EXISTING TRAIL. PROTECTION MATERIAL SHALL BE REMOVED FOLLOWING CONSTRUCTION. ITEM INCLUDES ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO FURNISH, INSTALL, MAINTAIN, AND REMOVE TRAIL PROTECTION. ANY DAMAGE TO TRAIL CAUSE BY CONSTRUCTION EQUIPMENT WILL BE CONTRACTOR'S RESPONSIBILITY TO REPAIR AT THEIR COST. OTHER METHODS OF TRAIL PROTECTION MAY BE ALLOWED WITH ENGINEER APPROVAL PRIOR TO PLACEMENT.

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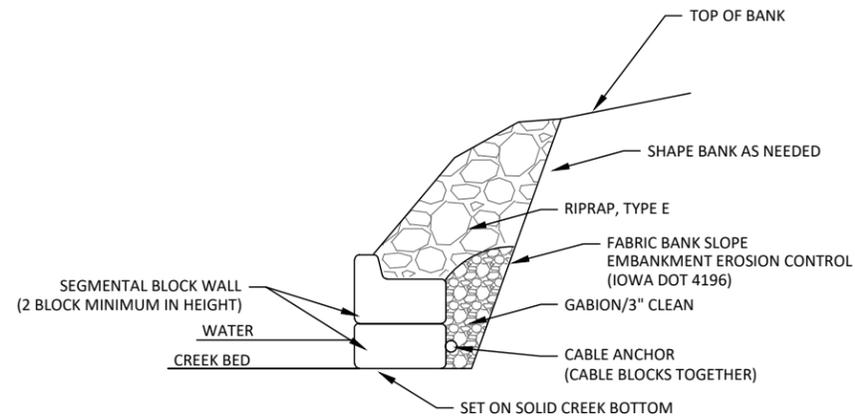
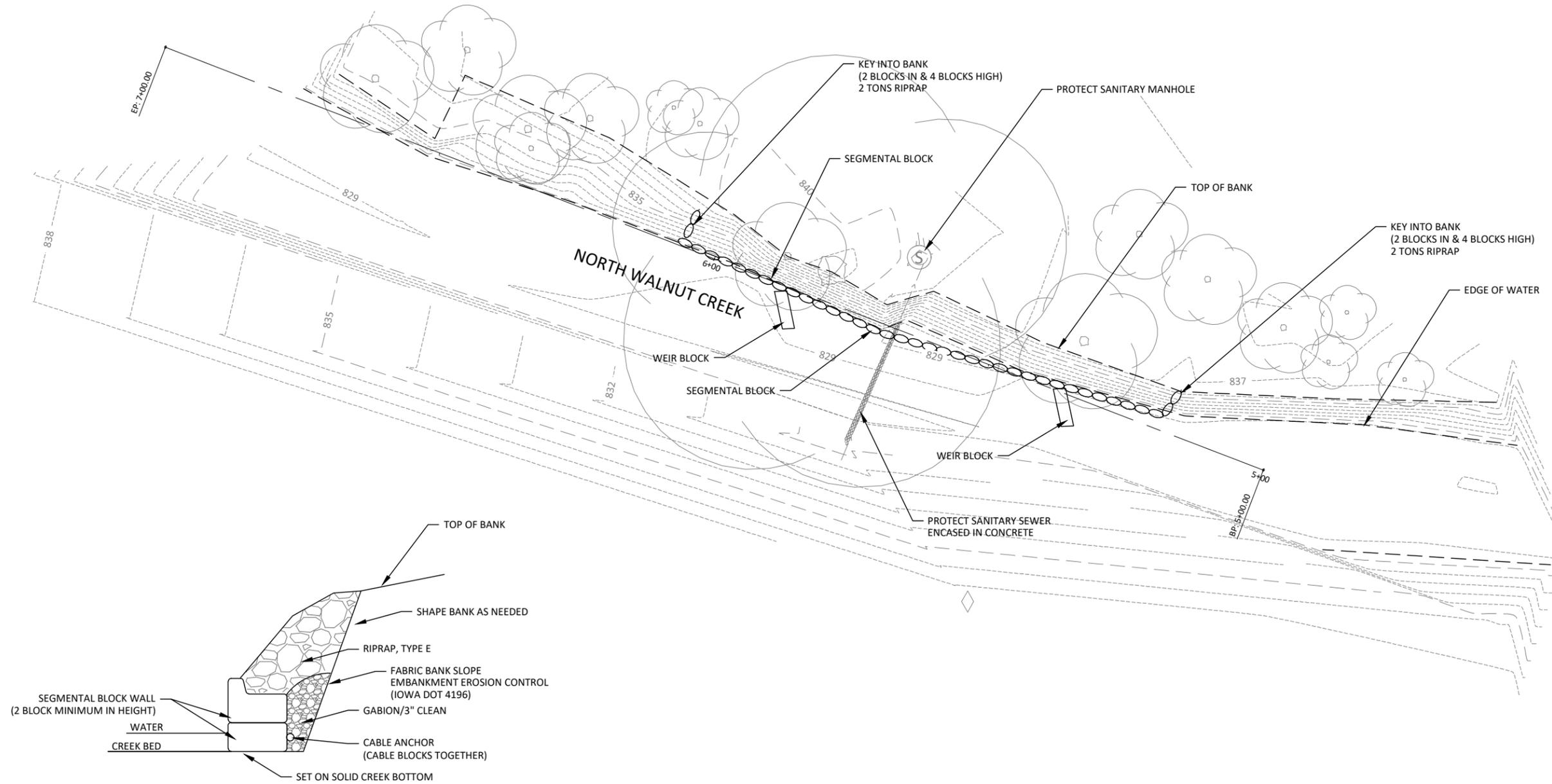
CITY OF WINDSOR HEIGHTS, IOWA  
NORTH WALNUT CREEK STREAMBANK RESTORATION  
QUANTITIES & ESTIMATE REFERENCE NOTES

SHEET  
C.2

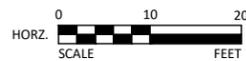
NOTES:  
 1. SEED ALL DISTURBED AREA (INCIDENTAL)

# LOCATION 1

NORTH WALNUT CREEK



**BANK RESTORATION DETAIL (LOC. 1)**



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 DES MOINES, IOWA 50309  
 Phone: (515) 259-9190  
 Email: DesMoines@bolton-menk.com  
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SEALED	JLE
CHECKED	XXX
CLIENT PROJECT NO.	A13.120253

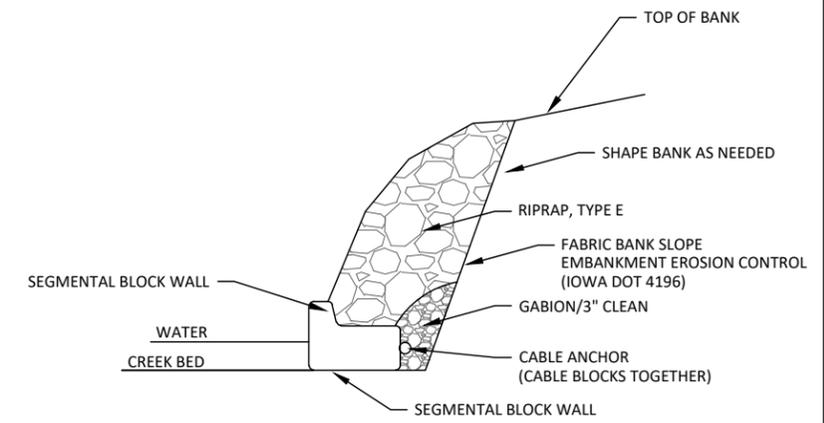
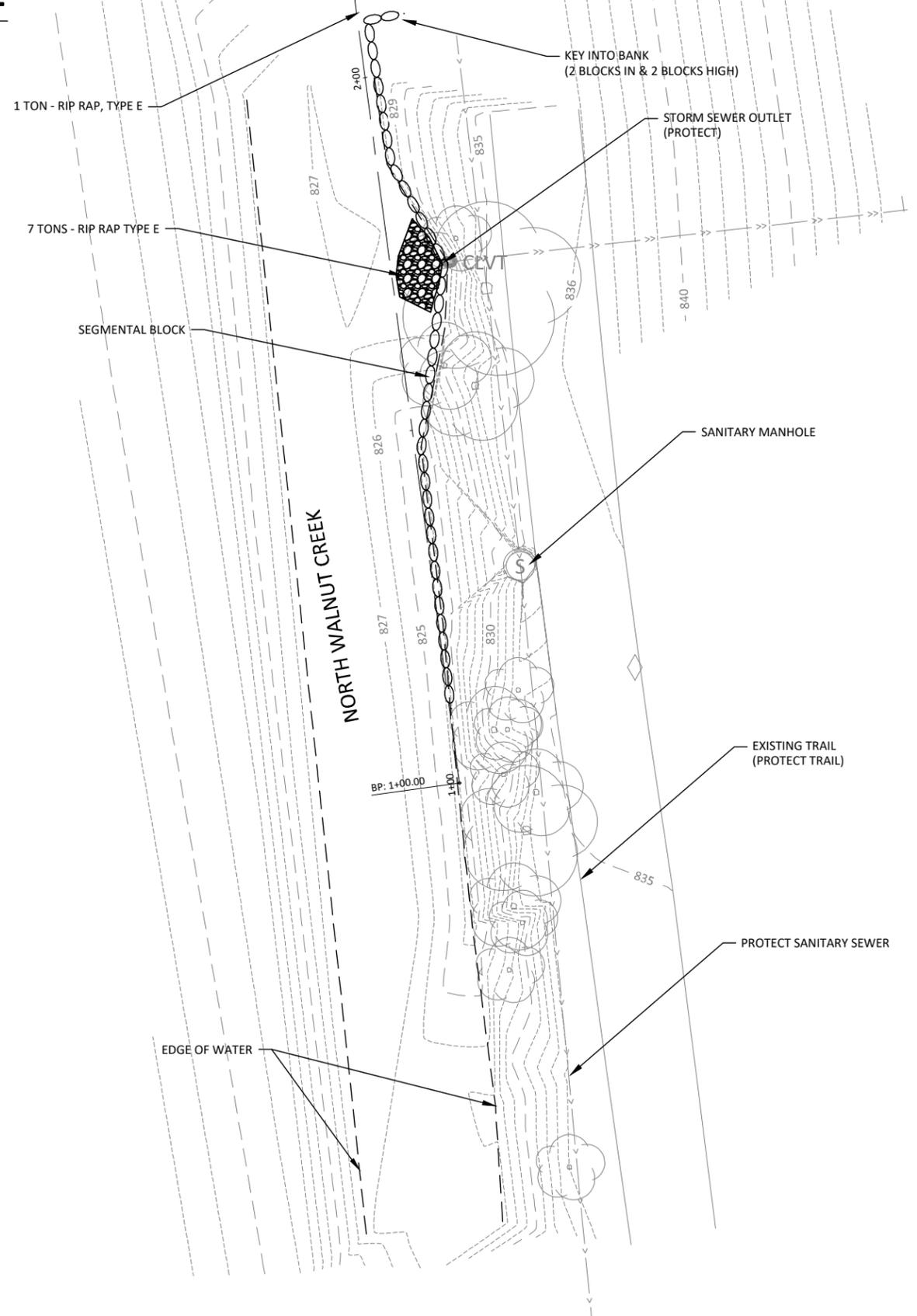
CITY OF WINDSOR HEIGHTS, IOWA  
 NORTH WALNUT CREEK STREAMBANK RESTORATION

LOCATION 1

SHEET  
 D.1

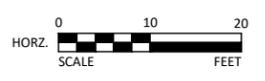
# LOCATION 2

NOTES:  
1. SEED ALL DISTURBED AREA (INCIDENTAL)



**BANK RESTORATION DETAIL (LOC. 2)**

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CLIENT PROJ. NO.	A13.120253

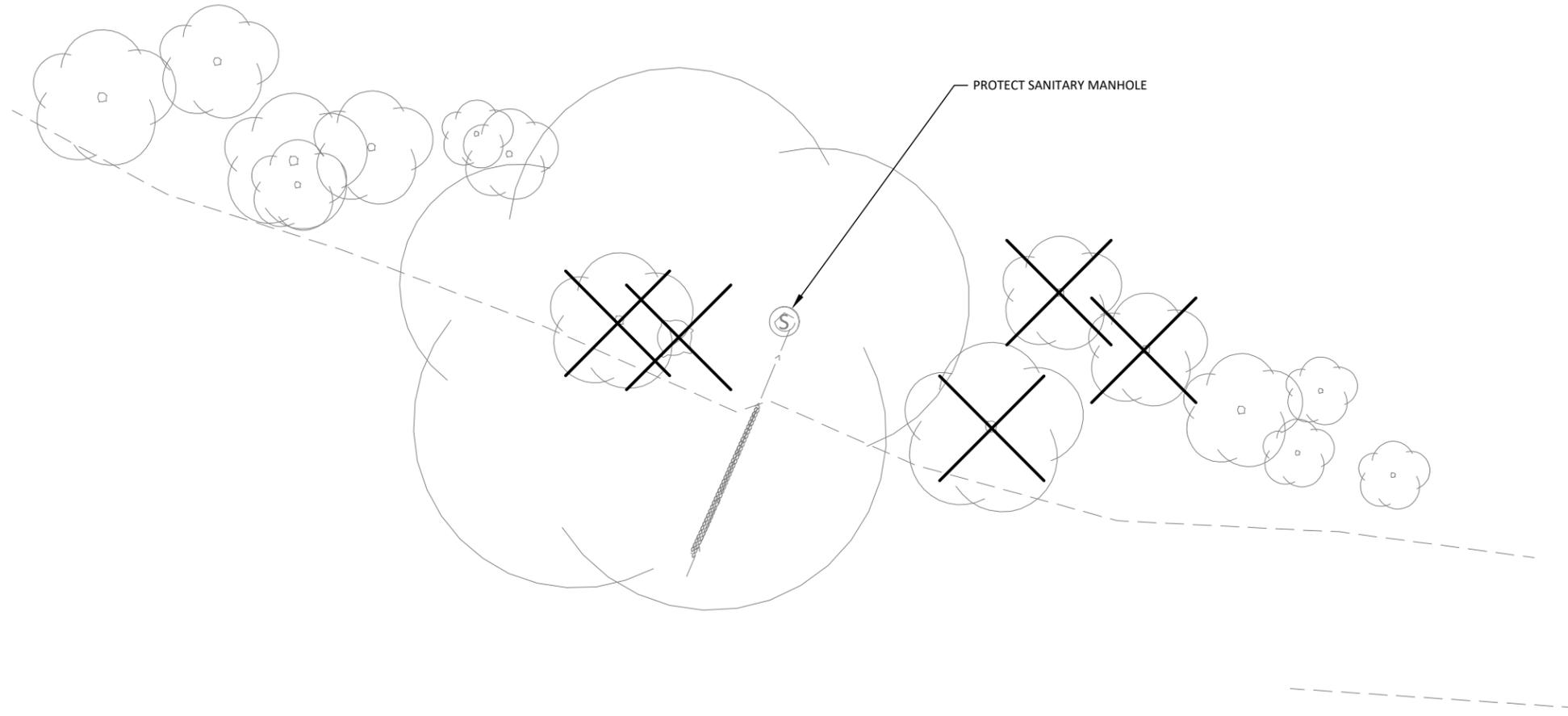
CITY OF WINDSOR HEIGHTS, IOWA  
NORTH WALNUT CREEK STREAMBANK RESTORATION  
LOCATION 2

SHEET  
D.2

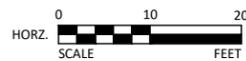
NOTES:

1. REMOVALS TO BE MARKED IN FIELD BY ENGINEER WITH CONTRACTOR PRESENT.
2. TREE TRIMMING CONSIDERED INCIDENTAL.
3. REMOVING BRUSH CONSIDERED INCIDENTAL.

# LOCATION 1



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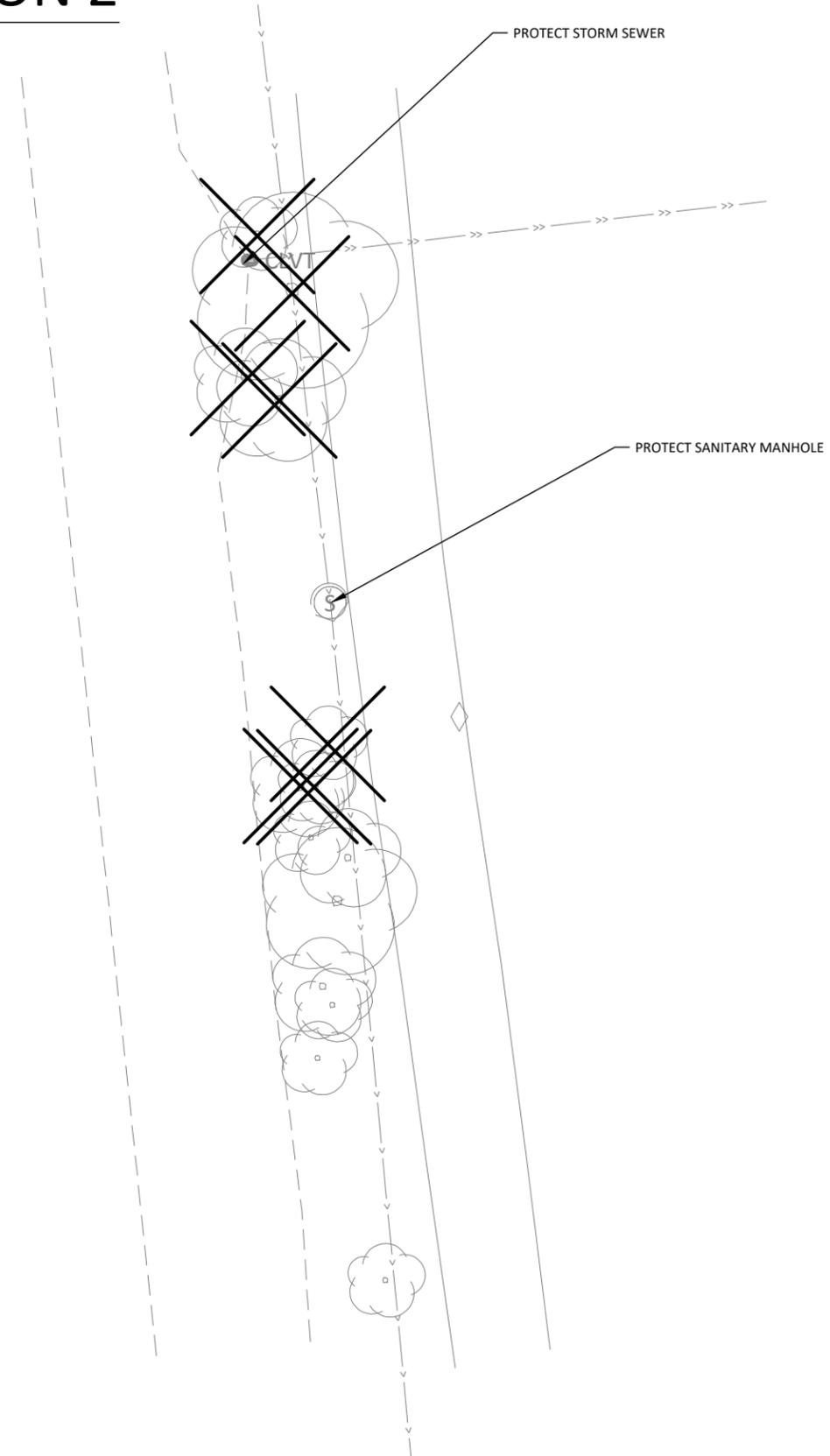
REMOVALS

SHEET  
 R.1

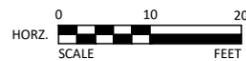
# LOCATION 2

**NOTES:**

1. REMOVALS TO BE MARKED IN FIELD BY ENGINEER WITH CONTRACTOR PRESENT.
2. TREE TRIMMING CONSIDERED INCIDENTAL.
3. REMOVING BRUSH CONSIDERED INCIDENTAL.



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REMOVALS

SHEET  
 R.2