ELY DOWNTOWN RECONSTRUCTION PHASE 1

ELY LINN COUNTY, IOWA

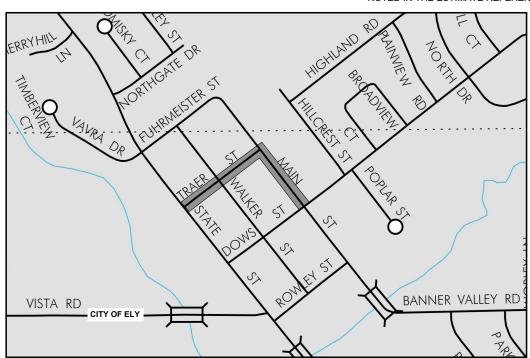


DESIGN STANDARDS



STATEWIDE URBAN DESIGN AND SPECIFICATIONS

SUDAS 2022 DESIGN STANDARDS AND SPECIFICATIONS ARE THE GOVERNING DOCUMENTS FOR THIS PROJECT. MODIFICATIONS TO THESE SPECIFICATIONS ARE NOTED IN THE ESTIMATE REFERENCE TABLE HEREIN





UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND CONTRACTOR SHALL HAVE APPROPRIATE UTILITY MARK EXACT LOCATIONS PRIOR TO

DESIGNED BY: JLS





FUNDING | PLANNING | ENVIRONMENTAL (563) 582-3973 www.msa-ps.com

LEGEND EXISTING WATER MAIN EXISTING GATE VALVE & HYDRANT WATER SERVICE & CURB STOP PROPOSED WATERMAIN, VALVE, & HYDRANT PROPOSED WATER SERVICE & CURB STOP EXISTING SANITARY SEWER & MANHOLE EXISTING FORCEMAIN EXISTING STORM SEWER & INLET PROPOSED STORM SEWER & INLET PROPOSED STORM SEWER & MANHOLE PROPOSED SANITARY SEWER & MANHOLE BURIED ELECTRIC **BURIED GAS & VALVE BURIED CABLE TELEVISION** BURIED TELEPHONE BURIED FIBER OPTICS OVERHEAD UTILITY

RAILROAD TRACKS

PROPOSED CURB & GUTTER EXISTING SIDEWALK PROPOSED SIDEWALK

EXISTING CURB & GUTTER

EXISTING CULVERT PIPE PROPOSED CULVERT PIPE DRAINAGE ARROW

PROPERTY LINE

SILT FENCE RIGHT-OF-WAY BASELINE

TREE LINE BENCHMARK IRON PIPE

> CONTROL POINT UTILITY POLE & GUY SOIL BORING

LIGHT POLE PEDESTAL STREET SIGN MAILBOX **FLAGPOLE**

TREE - DECIDUOUS TREE - CONIFEROUS TREE TO BE REMOVED

UTILITIES

GAS:

ELECTRIC:

1000 MAIN STREET DUBUQUE, IA 52001 24 HR. OUTAGE REPORTING SERVICE 1.877.740.5050

TELEPHONE:

SOUTHSLOPE TELEPHONE 980 N. FRONT ST. NORTH LIBERTY, IOWA 319-272-6449

SEWER & WATER:

AUREON NETWORK SERVICES 515-830-0110

EMERGENCY

POLICE:

EMERGENCY NON-EMERGENCY LINN COUNTY SHERIFF 310 2ND AVE SW CEDAR RAPIDS, IA 52404 319-892-6100

EMERGENCY NON-EMERGENCY ELY FIRE DEPARTMENT 1300 MAIN STREET ELY, IA 52227

1-800-292-8989 www.iowaonecall.com



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 JOYAL

DATE:

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023 MY LICENSE NUMBER IS, P27660

PAGES OR SHEETS COVERED BY THIS SEAL:

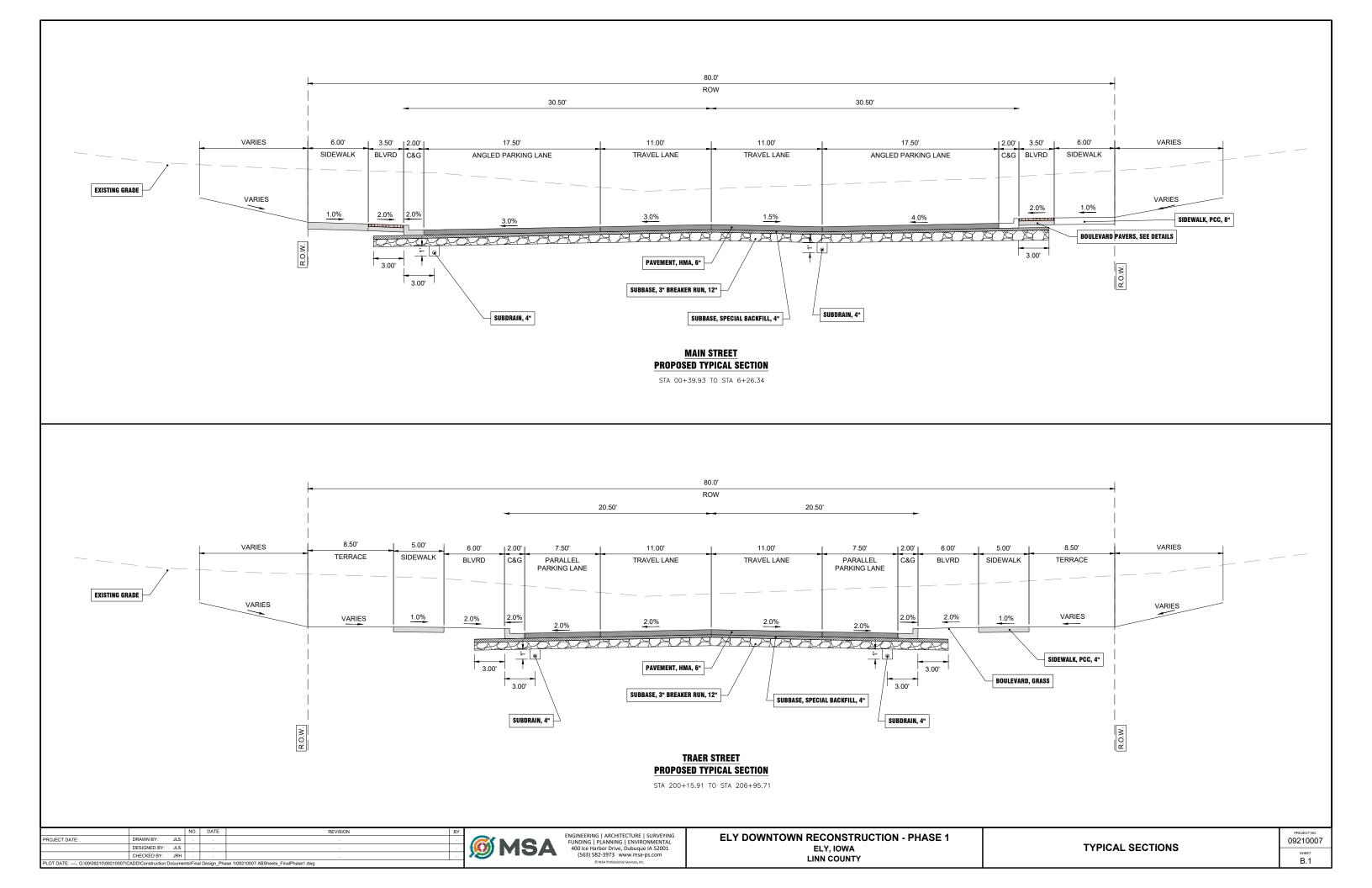
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ELY DOWNTOWN RECONSTRUCTION - PHASE 1 ELY. IOWA

TITLE SHEET

09210007

LINN COUNTY



ESTIMATED PROJECT QUANTITIES (UP TO A 5 DIVISION PROJECT)

	This Data Entry Sheet fills Tab 100-1C eff	ective 04-	-17-12					
N			Quanti	ties				
Item No.	Item	Unit	Estimated	As Built				
DIVISION 2	- EARTHWORK							
2.01	CLEARING AND GRUBBING	LS	1	C	DIVISION 6	5 - STRUCTURES FOR SANITARY & STORM SEWERS		
2.02	TOPSOIL, OFF SITE, 4"	CY	447		6.01	MANHOLE, SANITARY, SW301, 48"	EA	3
2.03	EXCAVATION, CLASS 13	CY	9100		6.02	MANHOLE, STORM, SW401, 48"	EA	1
2.04	BELOW GRADE EXCAVATION	TON	2469		6.03	MANHOLE, STORM, SW401, 60"	EA	3
2.05	SUBBASE, SPECIAL BACKFILL, 4"	SY	9267		6.04	INTAKE, SW 501	EA	8
2.06	SUBBASE, BREAKER RUN, 12"	SY	6224		6.05	INTAKE, SW 501, MODIFIED	EA	4
2.07	COMPACTION TESTING	LS	1		6.06	INTAKE, SW 503, MODIFIED	EA	3
DIVISION 4	- SEWERS & DRAINS				6.07	INTAKE, SW 505	EA	3
4.01	SANITARY SEWER GRAVITY MAIN, TRENCHED, SDR-26, 8"	LF	908		6.08	INTAKE, SW 505, MODIFIED	EA	1
4.02	SANITARY SEWER SERVICE STUB, TRENCHED, SDR-23.5, 4"	LF	200		6.09	INTAKE, SW 506, MODIFIED	EA	1
4.03	STORM SEWER TRENCHED, RCP, 12"	LF	70		6.10	REMOVE MANHOLE/INTAKE	EA	14
4.04	STORM SEWER TRENCHED, RCP, 15"	LF	490		6.11	ADJUST MANHOLE	EA	2
4.05	STORM SEWER TRENCHED, RCP, 18"	LF	171		DIVISION 7	' - STREETS & RELATED WORK	•	
4.06	STORM SEWER TRENCHED, RCP, 24"	LF	314		7.01	CURB & GUTTER, 24" WIDTH, 6"	LF	2830
4.07	STORM SEWER TRENCHED, RCP, 27"	LF	59		7.02	PAVEMENT, PCC, 8"	SY	914
4.08	STORM SEWER TRENCHED, RCP, 30"	LF	240		7.03	BOULEVARD PAVERS	SY	843
4.09	STORM SEWER TRENCHED, RCP, ELLIPTICAL, 30" EQUIVALENT	LF	431		7.04	CROSSWALK PAVERS	SY	73
4.10	SUBDRAIN, LONGITUDINAL, 4"	LF	2800		7.05	PCC SAMPLES AND TESTING	LS	1
-	G - WATER MAINS & APPURTENANCES	1.5	215		7.06	PAVEMENT, HMA, 6"	SY	5210
5.01 5.02	WATERMAIN, TRENCHED, C900, 6" WATERMAIN, TRENCHED, C900, 10"	LF LF	1320		7.07	TEMPORARY PAVEMENT, HMA	SY	289
5.03	WATERMAIN, TRENCHED, DIP, 10"	LF	158		7.08	REMOVAL OF SIDEWALK	SY	250
5.04	FITTING, MJ TEE, 8"	EA	138		7.09	REMOVAL OF DRIVEWAY	SY	373
5.05	FITTING, MJ TEE, 12"x10"	EA	1 1		7.10	SIDEWALK, PCC, 4"	SY	759
5.06	FITTING, MJ BEND, 6" 45 DEGREE	EA	18		7.11	SIDEWALK, PCC, 6"	SY	208
5.07	FITTING, MJ BEND, 10" 45 DEGREE	EA	2		7.12	SIDEWALK, PCC, 8"	SY	792
5.08	FITTING, MJ CROSS, 10"	EA	2		7.13	DETECTABLE WARNING	SF	176
5.09	FITTING, MJ REDUCER, 6" X 4"	EA	2		7.14	DRIVEWAY, PAVED, PCC, 6"	SY	368
5.1	FITTING, MJ REDUCER, 10" X 6"	EA	3		7.15	PAVEMENT REMOVAL	SY	4357
5.11	FITTING, MJ REDUCER, 10" X 8"	EA	1		7.16	GRANULAR SURFACING, 6"	SY	60
5.12	WATER SERVICE STUB, TYPE K COPPER, 3/4"	EA	6		7.17	PCC PLANTER CURB	LF	213
5.13	VALVE, GATE VALVE AND BOX, 6"	EA	1		7.18	INTERSECTION LETTERING	LS	1
5.14	VALVE, GATE VALVE AND BOX, 10"	EA	9		DIVISION 8	B - TRAFFIC CONTROL		
5.15	FIRE HYDRANT ASSEMBLY	EA	3			TEMPORARY TRAFFIC CONTROL	LS	1
5.16	CONNECTION TO EXISTING WATERMAIN	EA	4		DIVISION 9	- SITE WORK & LANDSCAPING		
5.17	WATER MAIN ABANDONMENT	LS	1		9.01	HYDRAULIC SEEDING, FERTILIZING, AND MULCHING	SY	4888
	•		•		9.02	SWPPP MANAGEMENT	LS	1
					9.03	WATTLE, 8"	LF	2200
					9.04	STABILIZED CONSTRUCITON ENTRANCE	EA	2
					9.05	INLET PROTECTION DEVICE, SURFACE APPLIED	EA	22
					9.06	LIMESTONE BLOCKS	LF	180
						1 - MISCELLANEOUS		
						MOBILIZATION	LS	1
					11.02	STREET LIGHTING	LS	1
					11.03	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	LF	3330
					11.04	CONCRETE WASHOUT	EA	2
					11.05	VIBRATION MONITORING	LS	1
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T.t N .	11*	This Data Entry Sheet fills Tab 100-4A effective 10-29-02
Item No.	Unit	Description
2.01	LS	CLEARING AND GRUBBING
2.01	L3	The item will be measured and paid according to Section 2010 Part 1.08.C. Item shall be executed according to
		Section 2010 Part 3.01. Item shall include all items listed in Section 2010 Part 3.01.C. and additional items
		shown on the CD Plan Sheets. Respective property owners shall be notified by CONTRACTOR a MINIMUM OF 7-DAYS in
		advance of any landscaping shown to be removed in the right-of-way or easements. Salvage and reinstallation of
		these landscaping items is the responsibility of the respective property owner, unless otherwise noted in the
		plans. Any landscaping items shown to be removed that are still remaining after the required notification period has expired shall be removed and disposed of by the CONTRACTOR. Item shall also include the trimming of
		trees as necessary for construction. Trees that are required to be trimmed shall be done with a saw and shall
		sawed at the tree trunk.
2.02	CY	TOPSOIL, OFF SITE, 4"
		The item will measured in CUBIC YARDS of furnishing, excavating, hauling, and incorporating the material and will be computed on the basis of a uniform 4-inch finished thickness. Payment will be at the unit price per
		CUBIC YARD. Topsoil shall be in accordance with Section 2010 Part 2.01.C. Item shall be executed according to
		Section 2010 Part 3.02.
2.02	6) (EVENUATION CLASS 42
2.03	CY	EXCAVATION, CLASS 13 The item shall be measured and paid by the CUBIC YARD bid price. Item shall include all items listed in Section
		2010 Part 1.08.E.3. Item shall also include the stripping of topsoil. Raw Cut = 9,100 CY / Raw Fill = 88 CY.
		Fill Factor of 1.25 was used. Cut and fill quantities are estimated from top-of-existing-ground to
		top-of-proposed-subgrade. CONTRACTOR to verify quantities prior to bidding. ENGINEER will provide CAD files
		upon request. Item will be paid at the contract plan quantity and no final adjustment will be made. Item shall
		also include subrgade preparation according to Section 2010 Part 1.08.G. and Section 2010 Part 3.06. Proof roll
-		shall be performed according to Section 2010 Part 3.06.B. CONTRACTOR shall give 24-HR prior notification of proof roll operations to ENGINEER, and ENGINEER shall witness proof roll. Compaction shall be performed with
		moisture and density control according to Section 2010 Part 3.04.D. All compaction shall be 95% Standard
		Proctor Density.
2.04	TON	BELOW GRADE EXCAVATION The item will be measured in TONS of granular stabilization materials placed. Payment will be at the unit price
		per ton and according to Section 2010 Part 1.08.F.2. Payment includes all items listed in Section 2010
		Part 1.08.F.3. and also the excavation of unsuitable material. Granular stabilization (foundation) material
		shall be Macadam Stone Base according to Iowa DOT Gradation 13a. This item shall require approval from the
		ENGINEER prior to execution. CONTRACTOR to notify ENGINEER of areas of unsuitable or unstable materials when
		encountered. CONTRACTOR shall provide all rock tickets used for over-excavation to ENGINEER. Failure to notify
		ENGINEER will result in no payment for any work completed without ENGINEER approval.
2.05	SY	SUBBASE, SPECIAL BACKFILL, 4"
		The item will be measured according to Section 2010 Part 1.08.I.1. Item will be paid according to Section 2010
		Part 1.08.I.2. Special backfill material shall be Iowa DOT Gradation 30. 4-inch special backfill is to be
		used as subbase underneath proposed roadway, curb and gutter, driveway, sidewalks, and boulevard pavers
		Any subbase needed beyond 3-ft behind back-of-curb back-of-curb is included in above quantity and will not be
		paid for separately. Compaction shall be performed with moisture and density control according to Section 2010 Part 3.04.D. All compaction shall be 95% Standard Proctor Density.
		The state of the s
2.06	SY	SUBBASE, BREAKER RUN, 12"
		The item will be measured according to Section 2010 Part 1.08.I.1. Item will be paid according to Section 2010
		Part 1.08.I.2. Breaker run material shall have a nominal size of 3-inches screened over a 1-inch screen. Any subbase needed beyond 3-ft behind back-of-curb back-of-curb is included in above quantity and will not be
		paid for separately. Compaction shall be performed with moisture and density control according to Section
		2010 Part 3.04.D. All compaction shall be 95% Standard Proctor Density.

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2 2 7		COMPLETTON TECTING
2.07	LS	COMPACTION TESTING
		The item will shall be a lump sum item according to Section 2010 Part 1.08.L.2.a and no measurement will be
		made. Item will be paid according to Section 2010 Part 1.08.L.2.b. CONTRACTOR shall be responsible for
		compaction testing of both subgrade and subbase. Compaction testing shall be in accordance with Section 2010
		Part 3.09. All compaction shall be 95% Standard Proctor. CONTRACTOR shall give 24-HR prior notification of
		compaction testing to ENGINEER, and ENGINEER shall witness compaction testing. CONTRACTOR shall provide test
		all compaction test report results to ENGINEER.
4 04		CANITADY CELIED CDAYTTY MATH. TRENCHED, CDD 3C, 011
4.01	LF	SANITARY SEWER GRAVITY MAIN, TRENCHED, SDR-26, 8"
		The item will be measured and paid according to Section 4010 Part 1.08.A. Pipe material shall meet the
		requirements of Section 4010 Part 2.01.A. Pipe bedding shall be Class F-3. Final backfill of sewer underneath
		proposed pavement areas shall be Class 1 material according to Section 3010 Part 2.02.A. All required Class 1
		final backfill shall be considered inclusive and will not be paid for separately. Compaction shall be 95%
		Standard Proctor. Removal and disposal of existing sewer line shall be considered inclusive to this bid item.
4.02	LF	SANITARY SEWER SERVICE STUB, TRENCHED, SDR-23.5, 4"
		The item will be measured and paid according to Section 4010 Part 1.08.A. Pipe material shall meet the
		requirements of Section 4010 Part 2.01.A. Pipe bedding shall be Class F-3. Final backfill of sewer underneath
		proposed pavement areas shall be Class 1 material according to Section 3010 Part 2.02.A. All required Class 1
		final backfill shall be considered inclusive and will not be paid for separately. Compaction shall be 95%
		Standard Proctor. Removal and disposal of existing sewer line shall be considered inclusive to this bid item.
		Material and labor needed to install wyes, fittings, and couplings to existing services shall be inclusive to
		this bid item.
4.03	LF	STORM SEWER TRENCHED, RCP, 12"
		The item will be measured and paid according to Section 4020 Part 1.08.A.1. Pipe material shall meet the
		requirements of Section 4020 Part 2.01.A. Pipe bedding shall be Class R-2. All pipes joints shall have a O-ring
		gasket complying with ASTM C 443. Haunching, primary, and secondary backfill shall be Class 1 Granular material
		according to Section 3010 Part 2.02.A. Final backfill of sewer underneath proposed pavement areas shall be
		Class 1 Granular material according to Section 3010 Part 2.02.A. All required granular final backfill shall be
		considered inclusive and will not be paid for separately. Compaction shall be 95% Standard Proctor
4.04	LF	STORM SEWER TRENCHED, RCP, 15"
		The item will be measured and paid according to Section 4020 Part 1.08.A.1. Pipe material shall meet the
		requirements of Section 4020 Part 2.01.A. Pipe bedding shall be Class R-2. All pipes joints shall have a O-ring
		gasket complying with ASTM C 443. Haunching, primary, and secondary backfill shall be Class 1 Granular material
		according to Section 3010 Part 2.02.A. Final backfill of sewer underneath proposed pavement areas shall be
		Class 1 Granular material according to Section 3010 Part 2.02.A. All required granular final backfill shall be
		considered inclusive and will not be paid for separately. Compaction shall be 95% Standard Proctor
4.05	LF	STORM SEWER TRENCHED, RCP, 18"
		The item will be measured and paid according to Section 4020 Part 1.08.A.1. Pipe material shall meet the
		requirements of Section 4020 Part 2.01.A. Pipe bedding shall be Class R-2. All pipes joints shall have a O-ring
		gasket complying with ASTM C 443. Haunching, primary, and secondary backfill shall be Class 1 Granular material
		according to Section 3010 Part 2.02.A. Final backfill of sewer underneath proposed pavement areas shall be
		Class 1 Granular material according to Section 3010 Part 2.02.A. All required granular final backfill shall be
		considered inclusive and will not be paid for separately. Compaction shall be 95% Standard Proctor
		Solidade and allegative with Maria Hot de para 161 department of the solidate and allegative and
4.06	LF	STORM SEWER TRENCHED, RCP, 24"
		The item will be measured and paid according to Section 4020 Part 1.08.A.1. Pipe material shall meet the
-		requirements of Section 4020 Part 2.01.A. Pipe bedding shall be Class R-2. All pipes joints shall have a O-ring
		gasket complying with ASTM C 443. Haunching, primary, and secondary backfill shall be Class 1 Granular material
		according to Section 3010 Part 2.02.A. Final backfill of sewer underneath proposed pavement areas shall be
		Class 1 Granular material according to Section 3010 Part 2.02.A. All required granular final backfill shall be
		considered inclusive and will not be paid for separately. Compaction shall be 95% Standard Proctor
		constact of functions and with not be bath for sebaratery. Compaction shall be 32% Standard Proctor.
4.07	LF	STORM SEWER TRENCHED, RCP, 27"
4.0/	LF	
		The item will be measured and paid according to Section 4020 Part 1.08.A.1. Pipe material shall meet the
		requirements of Section 4020 Part 2.01.A. Pipe bedding shall be Class R-2. All pipes joints shall have a O-ring
		gasket complying with ASTM C 443. Haunching, primary, and secondary backfill shall be Class 1 Granular material
		according to Section 3010 Part 2.02.A. Final backfill of sewer underneath proposed pavement areas shall be
		Class 1 Granular material according to Section 3010 Part 2.02.A. All required granular final backfill shall be
		considered inclusive and will not be paid for separately. Compaction shall be 95% Standard Proctor
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4.08	LF	STORM SEWER TRENCHED, RCP, 30" The item will be measured and paid according to Section 4020 Part 1.08.A.1. Pipe material shall meet the
		requirements of Section 4020 Part 2.01.A. Pipe bedding shall be Class R-2. All pipes joints shall have a O-ring
		gasket complying with ASTM C 443. Haunching, primary, and secondary backfill shall be Class 1 Granular material
		according to Section 3010 Part 2.02.A. Final backfill of sewer underneath proposed pavement areas shall be
		Class 1 Granular material according to Section 3010 Part 2.02.A. All required granular final backfill shall be
		considered inclusive and will not be paid for separately. Compaction shall be 95% Standard Proctor
4.09	LF	STORM SEWER TRENCHED, RCP, ELLIPTICAL, 30" EQUIVALENT
4.09	LF	The item will be measured and paid according to Section 4020 Part 1.08.A.1. Pipe material shall meet the
		requirements of Section 4020 Part 2.01.A. Pipe bedding shall be Class R-2. All pipes joints shall have a O-ring
		gasket complying with ASTM C 443. Haunching, primary, and secondary backfill shall be Class 1 Granular material
		according to Section 3010 Part 2.02.A. Final backfill of sewer underneath proposed pavement areas shall be
		Class 1 Granular material according to Section 3010 Part 2.02.A. All required granular final backfill shall be
		considered inclusive and will not be paid for separately. Compaction shall be 95% Standard Proctor
4.10	LF	SUBDRAIN, LONGITUDINAL, 4"
4.10	LF	The item will be measured and paid according to Section 4040 Part 1.08.A. Pipe material shall meet the
		requirements of Section 4040 Part 2.02.C. Subdrain shall be Case C, Type 1 per subdrain detail. Engineering
		fabric is required. Subdrain outlets into storm inlets shall be considered inclusive to this bid item.
5.01	LF	WATERMAIN, TRENCHED, C900, 6"
		The item will be measured and paid according to Section 5010 Part 1.08.A. Pipe material shall meet the
		requirements of Section 5010 Part 2.01.A. Pipe bedding shall be Class P-3. Haunching, primary, and secondary
		backfill shall be Class 1 Granular material according to Section 3010 Part 2.02.A. Final backfill of water main
		underneath proposed pavement areas shall be granular backfill according to Iowa DOT Gradation #32. All required
		final backfill shall be considered inclusive and will not be paid for separately. Compaction shall be 95%
		Standard Proctor. Item shall also include tracer wire boxes. Tracer wire boxes shall be Valvco or approved
		equivalent with a cast iron lockable top. Cast iron tops shall be appropriately labeled "WATER". Any bends
		and/or fittings not listed in the estimated quanitites will not be paid for and shall be considered inclusive
		to the water main pipe. Temporary caps and required reaction and/or blow-off valves required to construct the
		proposed water main and complete testing and/or to maintain water service shall be considered inclusive. Any
		insulation required where bury depth is less than 5'-6" shown in plans shall also be inclusive to bid item.
5.02	LF	WATERMAIN, TRENCHED, C900, 10"
3.02	LI	The item will be measured and paid according to Section 5010 Part 1.08.A. Pipe material shall meet the
		requirements of Section 5010 Part 2.01.A. Pipe bedding shall be Class P-3. Haunching, primary, and secondary
		backfill shall be Class 1 Granular material according to Section 3010 Part 2.02.A. Final backfill of water main
		underneath proposed pavement areas shall be granular backfill according to Iowa DOT Gradation #32. All required
		final backfill shall be considered inclusive and will not be paid for separately. Compaction shall be 95%
		Standard Proctor. Item shall also include tracer wire boxes. Tracer wire boxes shall be Valvco or approved
		equivalent with a cast iron lockable top. Cast iron tops shall be appropriately labeled "WATER". Any bends
		and/or fittings not listed in the estimated quanitites will not be paid for and shall be considered inclusive
		to the water main pipe. Temporary caps and required reaction and/or blow-off valves required to construct the
		proposed water main and complete testing and/or to maintain water service shall be considered inclusive. Any
		insulation required where bury depth is less than 5'-6" shown in plans shall also be inclusive to bid item.
5.03	LF	WATERMAIN, TRENCHED, DIP, 10"
2.03	LI	The item will be measured and paid according to Section 5010 Part 1.08.A. Pipe material shall meet the
		requirements of Section 5010 Part 2.01.A. Pipe bedding shall be Class P-3. Haunching, primary, and secondary
-		
		backfill shall be Class 1 Granular material according to Section 3010 Part 2.02.A. Final backfill of water main
		underneath proposed pavement areas shall be granular backfill according to Iowa DOT Gradation #32. All required
		final backfill shall be considered inclusive and will not be paid for separately. Compaction shall be 95%
		Standard Proctor. Item shall also include tracer wire boxes. Tracer wire boxes shall be Valvco or approved
		equivalent with a cast iron lockable top. Cast iron tops shall be appropriately labeled "WATER". Any bends
		equivalent with a cast iron lockable top. Cast iron tops shall be appropriately labeled "WATER". Any bends and/or fittings not listed in the estimated quanitites will not be paid for and shall be considered inclusive
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		equivalent with a cast iron lockable top. Cast iron tops shall be appropriately labeled "WATER". Any bends and/or fittings not listed in the estimated quanitites will not be paid for and shall be considered inclusive to the water main pipe. Temporary caps and required reaction and/or blow-off valves required to construct the

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SIGNED BY: JLS							
HECKED BY: JRH							
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5.04	EA	FITTING, MJ TEE, 8"
		The item will be measured and paid according to Section 5010 Part 1.08.C.1. Fitting material shall meet the
		requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used for thrust blocking. If precast
		concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER approval prior to installation.
		Only ducitle iron fittings manufactured in USA and meeting AIS requirements shall be allowed. Megalug
		restraints, or equal, required to install fitting shall be considered inclusive to this bid item.
5.05	EA	FITTING, MJ TEE, 12"x10"
		The item will be measured and paid according to Section 5010 Part 1.08.C.1. Fitting material shall meet the
		requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used for thrust blocking. If precast
		concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER approval prior to installation.
		Only ducitle iron fittings manufactured in USA and meeting AIS requirements shall be allowed. Megalug
		restraints, or equal, required to install fitting shall be considered inclusive to this bid item.
		resettatines) of equal required to install filtering shall be considered inclusive to this blu feem.
5.06	EA	FITTING, MJ BEND, 6" 45 DEGREE
3.00	LA	The item will be measured and paid according to Section 5010 Part 1.08.C.1. Fitting material shall meet the
		requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used for thrust blocking. If precast
		concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER approval prior to installation.
		Only ducitle iron fittings manufactured in USA and meeting AIS requirements shall be allowed. Megalug
		restraints, or equal, required to install fitting shall be considered inclusive to this bid item.
5 07		ETTTING HI DEND 40 H 45 DECDES
5.07	EA	FITTING, MJ BEND, 10" 45 DEGREE
		The item will be measured and paid according to Section 5010 Part 1.08.C.1. Fitting material shall meet the
		requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used for thrust blocking. If precast
		concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER approval prior to installation.
		Only ducitle iron fittings manufactured in USA and meeting AIS requirements shall be allowed. Megalug
		restraints, or equal, required to install fitting shall be considered inclusive to this bid item.
5.08	EA	FITTING, MJ CROSS, 10"
		The item will be measured and paid according to Section 5010 Part 1.08.C.1. Fitting material shall meet the
		requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used for thrust blocking. If precast
		concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER approval prior to installation.
		Only ducitle iron fittings manufactured in USA and meeting AIS requirements shall be allowed. Megalug
		restraints, or equal, required to install fitting shall be considered inclusive to this bid item.
5.09	EA	FITTING, MJ REDUCER, 6" X 4"
		The item will be measured and paid according to Section 5010 Part 1.08.C.1. Fitting material shall meet the
		requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used for thrust blocking. If precast
		concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER approval prior to installation.
		Only ducitle iron fittings manufactured in USA and meeting AIS requirements shall be allowed. Megalug
		restraints, or equal, required to install fitting shall be considered inclusive to this bid item.
5.10	EA	FITTING, MJ REDUCER, 10" X 6"
		The item will be measured and paid according to Section 5010 Part 1.08.C.1. Fitting material shall meet the
		requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used for thrust blocking. If precast
		concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER approval prior to installation.
		Only ducitle iron fittings manufactured in USA and meeting AIS requirements shall be allowed. Megalug
		restraints, or equal, required to install fitting shall be considered inclusive to this bid item.
5.11	EA	FITTING, MJ REDUCER, 10" X 8"
		The item will be measured and paid according to Section 5010 Part 1.08.C.1. Fitting material shall meet the
		requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used for thrust blocking. If precast
		concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER approval prior to installation.
		Only ducitle iron fittings manufactured in USA and meeting AIS requirements shall be allowed. Megalug
		restraints, or equal, required to install fitting shall be considered inclusive to this bid item.

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5.12	EA	WATER SERVICE STUB, TYPE K COPPER, 3/4"
3.12	LA	The item will be measured and paid according to Section 5010 Part 1.08.E.1. Pipe material shall meet the
		requirements of Section 5010 Part 2.07.B.1. Copper tubing shall be furnished in coils. Underground joints in
		copper tubing water service lines shall be constructed by compression fittings. Bid item shall also include
		final backfill and connections to existing water service lines. Final backfill of water services shall be
		granular backfill according to Iowa DOT Gradation #32. Final backfill shall be compacted to 95% Standard
		Proctor density.
		The item will be measured and paid according to Section 5010 Part 1.08.E.2. Corporation stops shall be plug
		type and have AWWA inlet threads and flare outlet or compression outlet for copper tubing. Corporation stops
		shall be one of the following: 1) AY McDonald Series 4701 Flare, 2) AY McDonald Series 4701-22 Compression,
		3) Ford Series F600 Flare, 4) Ford Series F1000 Compression, 5) Mueller Series H15000 w/Flare, 6) Mueller
		Series H15000 w/110 Compression. Bid item shall also include tapping saddles. Tapping saddles shall be Smith
		Blair 317 or approved equivalent.
		The item will be measured and paid according to Section 5010 Part 1.08.E.3.Curb stops shall be ball type
		Minneapolis patter with flare connection or compression connection for copper tubing. Curb stops shall be one
		of the following: 1) AY McDonald Series 6104 Flare, 2) AY McDonald Series 6104-22 Compression, 3) Ford Series
		B22-M Flare, 4) Ford Series B4-M Compression, 5) Mueller Series H15154 w/Flare, 6) Mueller Series H15154
		Compression. Curb boxes shall be installed for each curb stop. Curb boxes shall be Buffalo type with screw type
		extension, minimum diameter 2.5-inches. Provide non-threaded cast iron base. Manufacturer shall be Tyler Union
		6500 Screw Type. All rods shall be stainless steel. Casting shall be Neenah R-1975-A2 with lid marked "WATER".
		obed Screw Type. All rous shall be scalliess steel. Casting shall be Neehan K-1973-AZ with IIu market water.
5 12	⊏ ^	VALVE CATE VALVE AND BOY 6"
5.13	EA	VALVE, GATE VALVE AND BOX, 6"
		The item will be measured and paid according to Section 5020 Part 1.08.A. Valves shall be Kennedy C515 Gate
		Valve, or approved equivalent, and meet the requirements of Section 5020 Part 2.01.B. Bid item shall also
		include valve box and valve box adaptor. Valve box shall be Tyler Union 6850 Screw Type or approved equivalent
		and shall have the text "WATER" on the lid. Valve box adaptor shall be Adaptor II by Adaptor Inc. or approved
		equivalent. All valve boxes shall be provided with mud plugs, as approved by the ENGINEER. Mud plugs shall be
		installed at time of valve box installation.
5.14	EA	VALVE, GATE VALVE AND BOX, 10"
		The item will be measured and paid according to Section 5020 Part 1.08.A. Valves shall be Kennedy C515 Gate
		Valve, or approved equivalent, and meet the requirements of Section 5020 Part 2.01.B. Bid item shall also
		include valve box and valve box adaptor. Valve box shall be Tyler Union 6850 Screw Type or approved equivalent
		and shall have the text "WATER" on the lid. Valve box adaptor shall be Adaptor II by Adaptor Inc. or approved
		equivalent. All valve boxes shall be provided with mud plugs, as approved by the ENGINEER. Mud plugs shall be
		installed at time of valve box installation.
5.15	EA	FIRE HYDRANT ASSEMBLY
3123		The item will be measured and paid according to Section 5020 Part 1.08.C.
		The real writer of measured and para according to become sold have real according
		Pipe material shall meet the requirements of Section 5010 Part 2.01.B., shall be 6-inches in diameter, and
		pipe bedding shall be Class P-3. Haunching, primary, and secondary backfill shall be Class 1 Granular Material
		according to Section 3010 Part 2.02.A. Final backfill of hydrant lead underneath proposed pavement areas shall
		be granular backfill according to Iowa DOT Gradation #32 and shall be considered inclusive to bid item. Compaction shall be 98% Standard Proctor.
		Compaction Shall be 30% Standard Froctor.
		Thidpant gate valves shall be 6" Kennedy CC15 Cate Valves on ammend and all and and the man because
		Hydrant gate valves shall be 6" Kennedy C515 Gate Valve, or approved equivalent, and meet the requirements
		of Section 5020 Part 2.01.B. Bid item shall also include valve box and valve box adaptor. Valve box shall be
		Tyler Union 6850 Screw Type or approved equivalent and shall have the text "WATER" on the lid. Valve box adaptor
		shall be Adaptor II by Adaptor Inc. or approved equivalent. All valve boxes shall be provided with mud plugs,
		as approved by the ENGINEER. Mud plugs shall be installed at the time of valve box installation.
		Fitting material shall meet the requirements of Section 5010 Part 2.03.A. Precast concrete blocks may be used
		for thrust blocking. If precast concrete blocks are to be used, CONTRACTOR to submit shop drawing for ENGINEER
		approval prior to installation. Only ducitle iron fittings manufactured in USA and meeting AIS requirements
		shall be allowed.
		Shull be ullowed:
		Hydrants shall meet the requirements of Section 5020 Part 2.02. Hydrants shall be Kennedy Guardian Model 81D
		or approved equivalent. Item shall also include tracer wire boxes. Tracer wire boxes shall be Valvco
		or approved equivalent with a cast iron lockable top. Cast iron tops shall be appropriately labeled "WATER".

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5.16	EA	CONNECTION TO EXISTING WATERMAIN
		The item will be measured and paid per EACH connection of the proposed water main to the existing water main.
		Bid item shall include all equipment, labor, and materials to connect to the existing water main. This shall
		include, but is not limited to, exploratory excavation and locating, connection excavation, dewatering, and
		any all connection hardware and/or fittings not specifically identified in the plans.
5.17	LS	WATER MAIN ABANDONMENT
		The item will be paid at the LUMP SUM bid price. No measurement will be made. Lump sum bid price shall include
		all costs associated with, but not limited to, capping existing water main to be abandoned, and also
		coordination of water main abandoment with the City of Ely. The item shall also include the removal of existing
		fire hydrant assemblies. The existing fire hydrants, hydrant valves, and thrust blocks shall be completely
		removed and the existing hydrant lead pipe capped with a MJ Ductile Iron fitting. Bid item shall also include
		the removal of existing water main valve boxes.
6.01	EA	MANHOLE, SANITARY, SW301, 48"
		The item will be measured and paid according to Section 6010 Part 1.08.A. Manhole shall be precast and meet the
		requirements of Section 6010 Part 2.02. Casting frame and lid shall be Neenah R-1642 watertight manhole frames
		with self-seal platin lids, or approved equivalent. Solid lid shall have the text "SANITARY SEWER" on the lid.
		Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in accordance with Section 6010 Part 2.09.A.3.
		Infiltration barrier shall be internal chimney seal meeting the requirements of Section 6010 Part 2.11.A.2.
		Sewer pipe penetrations to manholes shall be sealed with flexible gasket, A-lok, or approved equivalent.
		Sewer pipe penetrations to mannotes shall be sealed with Hexible gasket, A-lok, or approved equivalent.
6.02	EA	MANHOLE, STORM, SW401, 48"
0.02	EA	The item will be measured and paid according to Section 6010 Part 1.08.A. Manhole shall be precast and meet the
		requirements of Section 6010 Part 2.02. Casting frame and lid shall be Neenah R-1642 watertight manhole frames
		with self-seal platin lids, or approved equivalent. Solid lid shall have the text "STORM SEWER" on the lid.
		Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in accordance with Section 6010 Part 2.09.A.3.
6.02	ГΛ	MANUOLE CTORM CLAO1 CON
6.03	EA	MANHOLE, STORM, SW401, 60"
		The item will be measured and paid according to Section 6010 Part 1.08.A. Manhole shall be precast and meet the
		requirements of Section 6010 Part 2.02. Casting frame and lid shall be Neenah R-1642 watertight manhole frames
		with self-seal platin lids, or approved equivalent. Solid lid shall have the text "STORM SEWER" on the lid.
		Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in accordance with Section 6010 Part 2.09.A.3.
		THE SULFACE STATE OF THE STATE
6.04	EA	INTAKE, SW 501
		The item will be measured and paid according to Seciton 6010 Part 1.08.B. Casting shall be Neenah R-3246 with
		Type L Grates and R-3000-D Curb Box. Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in
		accordance with Section 6010 Part 2.09.A.3.
6.05	EA	INTAKE, SW 501, MODIFIED
		The item will be measured and paid according to Seciton 6010 Part 1.08.B. Intakes shall be cast-in-place and
		meet the requirements of Section 6010 Part 2.03. Casting shall be Neenah R-3293-2 with Type L Grates and
		R-3000-D Curb Box. Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in accordance with Section
		6010 Part 2.09.A.3. See details on the U Sheets for the modifications to be used for intakes with larger pipes.
6.06	EA	INTAKE, SW 503, MODIFIED
		The item will be measured and paid according to Seciton 6010 Part 1.08.B. Casting shall be Neenah R-3293-2 with
		Type L Grates and R-3000-D Curb Box. Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in
		accordance with Section 6010 Part 2.09.A.3. Intake shall be modified as follows: Manhole casting shown in
		detail WILL NOT be used. Intake should be built with a flat top instead of the casting hole, risers, and
		casting. Intent of intake is to provide enough width for larger diameter pipe.
6.07	EA	INTAKE, SW 505
		The item will be measured and paid according to Seciton 6010 Part 1.08.B. Casting shall be Neenah R-3246 with
		Type L Grates and R-3000-D Curb Box. Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in
		accordance with Section 6010 Part 2.09.A.3.
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6.08	EA	INTAKE, SW 505, MODIFIED
		The item will be measured and paid according to Seciton 6010 Part 1.08.B. Intakes shall be cast-in-place and
		meet the requirements of Section 6010 Part 2.03. Casting shall be Neenah R-3293-2 with Type L Grates and
		R-3000-D Curb Box. Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in accordance with Section
		6010 Part 2.09.A.3. See details on the U Sheets for the modifications to be used for intakes with larger pipes.
		Total Function See details on the or sheets for the mourifications to be used for includes with function for the mourifications.
6.09	EA	INTAKE, SW 506, MODIFIED
0.09	EA	
		The item will be measured and paid according to Seciton 6010 Part 1.08.B. Casting shall be Neenah R-3293-2 with
		Type L Grates and R-3000-D Curb Box. Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in
		accordance with Section 6010 Part 2.09.A.3. Intake shall be modified as follows: Manhole casting shown in
		detail WILL NOT be used. Intake should be built with a flat top instead of the casting hole, risers, and
		casting. Intent of intake is to provide enough width for larger diameter pipe.
6.10	EA	REMOVE MANHOLE/INTAKE
		The item shall be measured and paid according to Section 6010 Part 1.08.H.
6.11	EA	ADJUST MANHOLE
		The item shall be measured and paid according to Section 6010 Part 1.08.E. Casting shall be Neenah R-1642-A
		labeled "SANITARY SEWER" with self sealing platen lid or approved equal. Manhole shall have 4" min and 12" max
		Tableted Savitation State With Self Sealing Plate in two approved equal. Manifold Shall have 4 min and 12 max
		of adjustment rings. Item shall also include internal chimney seal meeting requirements of Section 6010 part
		2.11.A.2.
7.01	LF	CURB & GUTTER, 24" WIDTH, 6"
		Item shall be measured and paid according to Section 7010 Part 1.08.E.
7.02	SY	PAVEMENT, PCC, 8"
		The item will be measured and paid according to Section 7010 Part 1.08.A. Unit price shall also include all
		necessary reinforcement and joint sealing. All joints shall be sealed. Unit price shall also include all
		quality control of concrete in accordance with Section 7010 Part 3.07. CONTRACTOR shall submit all quality
		control results/tests to ENGINEER. 8-inch PCC pavement shall be used for intersections.
7.03	SY	BOULEVARD PAVERS
7.03		The item will be measured and paid according to Section 7030, Part 1.08.F. Unit price shall include: Concrete
		under pavers, woven geotextile, sand bedding, joint sand, and pavers. Bedding sand shall conform with ASTM C33
		gradation and shall be compacted to 7/8" thickness. Woven geotextile shall have apparent opening size of 0.300
		mm to 0.600 mm and shall be placed under the sand bedding and on the PCC base (see detail). Joint sand shall be
		polymericas manufactured by SEK Surebond, SSRW Products or Unilock Polymeric, gray in color. Outside paver band
		shall be Unilock Holland 5x10 Charcoal color and shall be placed in Edge/Soldier Course. Pavers inside of the
		Edge/Soldier coarse shall be Unilock Holland 5x10 Rustic Red color and shall be placed in Pattern C
		(Herringbone) per manufacturer recommendations. See U sheets for paver details.
7.04	SY	CROSSWALK PAVERS
		The item will be measured and paid according to Section 7030, Part 1.08.F. Unit price shall include: concrete
		under pavers, sand bedding, joint sand, and pavers. Bedding sand shall conform with ASTM C33 gradation and
		shall be compacted to 7/8" thickness. Joint sand shall be polymericas manufactured by SEK Surebond,
		SSRW Products or Unilock Polymeric, gray in color. Outside paver band shall be Unilock Holland 5x10 Charcoal
		color and shall be placed in Edge/Soldier Course. See U sheets for paver details.
+		cotor and sharr be praced in tuge/soluter course. See o sheets for paver details.
7.05	LS	PCC SAMPLES AND TESTING
7.05	L3	
		Item shall be measured and paid according to Section 7020 Part 1.08.I.
7.00	CV	DAVEMENT LIMA C'I
7.06	SY	PAVEMENT, HMA, 6"
		Item shall be measured and paid according to Section 7020 Part 1.08.B. Boxouts for manholes, valve boxes, and
		other fixtures shall be required. Fixture adjustment, other than manholes, shall be considered incidental.
		Material and Job Mix Formulation shall meet the Iowa DOT Standard Specification for mix design level HMA 300K,
		PG58-28. Pavement shall be constructed of a minimum 2-lifts of HMA. The liquid asphalt binder shall be
		unmodified Type PG 58-28. Type B Base with estimated bitumen content of 5.25 percent of total mixture. Type A
		surface course with estimated bitumen content of 6.00 percent of total mixture.
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7.07	SY	TEMPORARY PAVEMENT, HMA
		Item shall be measured and paid according to Section 7020 Part 1.08.B. Boxouts for manholes, valve boxes, and
		other fixtures shall be required. Fixture adjustment, other than manholes, shall be considered incidental.
		Material and Job Mix Formulation shall meet the Iowa DOT Standard Specification for mix design level HMA 300K,
		PG58-28. Pavement shall be constructed of a minimum 2-lifts of HMA. The liquid asphalt binder shall be
		unmodified Type PG 58-28. Type B Base with estimated bitumen content of 5.25 percent of total mixture. Type A
		surface course with estimated bitumen content of 6.00 percent of total mixture. Item to be used for temporary
		connections to existing pavement in alleys and side streets.
		connections to existing pavement in affeys and side streets.
7.00	C)/	DEMOVAL OF CEDEVALY
7.08	SY	REMOVAL OF SIDEWALK
		Item shall be measured and paid according to Section 7030 Part 1.08.A. Item shall include cost for saw cutting,
		sidewalk removal, and disposal to limits shown on the plans.
7.09	SY	REMOVAL OF DRIVEWAY
		Item shall be measured and paid according to Section 7030 Part 1.08.A. Item shall include cost for saw cutting,
		sidewalk removal, and disposal to limits shown on the plans.
7.10	SY	SIDEWALK, PCC, 4"
		Item shall be measured and paid according to Section 7030 Part 1.08.E. Unit price shall also include all
		quality control of concrete in accordance with Section 7010 Part 3.07. CONTRACTOR shall submit all quality
		control results/tests to ENGINEER. Item shall be used for the sidewalk along Traer Street.
		CONTENDED TO ENGLISHED THE SHALL OF ASSAULT AND SHA
7.11	SY	SIDEWALK, PCC, 6"
/ • ± ±		Item shall be measured and paid according to Section 7030 Part 1.08.E. Unit price shall also include all
		quality control of concrete in accordance with Section 7010 Part 3.07. CONTRACTOR shall submit all quality
		control results/tests to ENGINEER. Item to be used for curb ramp locations.
7.40		CTDELANK DOC OIL
7.12	SY	SIDEWALK, PCC, 8"
		Item shall be measured and paid according to Section 7030 Part 1.08.E. Unit price shall also include all
		quality control of concrete in accordance with Section 7010 Part 3.07. CONTRACTOR shall submit all quality
		control results/tests to ENGINEER. Item shall be used for the sidewalk along Main Street.
7.13	SF	DETECTABLE WARNING
		Item shall be measured and paid according to Section 7030 Part 1.08.G. Detectable warnings shall meet the
		requirements of Section 7030 Part 2.07 and shall be unpainted cast iron Neenah 4984-R or approved equal.
7.14	SY	DRIVEWAY, PAVED, PCC, 6"
		Item shall be measured and paid according to Section 7030 Part 1.08.H. Unit price shall also include all
		quality control of concrete in accordance with Section 7010 Part 3.07. CONTRACTOR shall submit all quality
		control results/tests to ENGINEER.
		Control results/ tests to Endinem
7.15	SY	PAVEMENT REMOVAL
7.13		Item shall be measured and paid according to Section 7040 Part 1.08.H. Item shall include cost for saw cutting,
		sidewalk removal, and disposal to limits shown on the plans.
		Stuewark Femovar, and disposar to limits shown on the plans.
7.46	C)/	CDANIII AD CUDEACENC CII
7.16	SY	GRANULAR SURFACING, 6"
		Item shall be measured and paid according to Section 7030 Part 1.08.H. Item shall be used for driveway access
		during project and for tapers for any driveway or alley currently gravel.
7.17	LF	PCC PLANTER CURB
		Item shall be measured and paid according to Section 7010 Part 1.08.E. See construction plans for layout &
		details.
7.18	LS	INTERSECTION LETTERING
8.01	LS	TEMPORARY TRAFFIC CONTROL
		The item will be measured and paid according to Section 8030 Part 1.08.A.
		1111 00 member on and para according to beceton out in a 11001/11

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9.01	SY	HYDRAULIC SEEDING, FERTILIZING, AND MULCHING
		The item will be measured and paid according to Section 9010 Part 1.08.B. Seed mixture shall be Type 1 Permanent
		Lawn Mixture in accordance with Section 9010 Part 2.02.A. Only mulching will be allowed to be completed
		hydraulically; seeding and fertilizer shall be completed separately according to Section 9010 Part 3.04.D.1.b.
		Hydromulch shall be Bonded Fiber Matrix (BFM) according to Section 9010 Part 2.07.B. Watering for 30 days as
		necessary is incidental to bid item. Bid item shall also include the maintenance of seeded areas until seeded
		areas are considered acceptable according to Section 9010 Part 3.10.A.2.
9.02	LS	SWPPP MANAGEMENT
		The item will be measured and paid according to Section 9040 Part 1.08.A.2. Lump sum bid price shall include
		the management of the SWPPP. CONTRACTOR shall be responsible for updating SWPPP plans when erosion control
		measures are installed or corrected. The site will have an NPDES General Permit No. 2. The CONTRACTOR, and any
		sub-contractors, shall be required to sign certification on SWPPP plan sheet in the plans. Engineer will
		conduct weekly site inspections for compliance with the NPDES permit. Contractor shall sign weekly inspection
		reports and immediately complete any required adjustments to erosion control as deemed necessary within each
		weekly report. Contractor shall be responsible for the installation of a lockable, water-tight, mailbox on site.
		Mailbox shall be large enough to store the SWPPP plans and report documents. All labor, equipment, and materials
		required to install the mailbox shall be considered inclusive to this bid item. Contractor shall also supply the
		Engineer and Owner separate keys for the mailbox.
		1.16a-1.4a-1.4a-1.4a-1.4a-1.4a-1.4a-1.4a-1.4
9.03	LF	WATTLE, 8"
3,02		The item will be measured and paid according to Section 9040 Part 1.08.F. Item shall include installation and
		removal.
9.04	EA	STABILIZED CONSTRUCITON ENTRANCE
		The item will be measured and paid as EACH stabilized construction entrance. Unit price also includes
		subgrade stabilization fabric, and the maintenance of construction entrance as necessary.
		Subgrade Seastiffed and the maintenance of construction entrance as necessary.
9.05	EA	INLET PROTECTION DEVICE, SURFACE APPLIED
3.05		The item will be measured and paid according to Section 9040 Part 1.08.T. Unit price shall also include the
		maintenance of devices, and the removal of devices. Inlet protection devices shall be Flex Storm Inlet Filters
		by ADS or approved equivalent.
9.06	LF	LIMESTONE BLOCKS
		Item should be measured and paind according to Section 9070, Part 1.08.Bper linear foot. Bloacks shall all be
		of a matching tan color. Contractor shall supply a sample block for review & approval by the Owner and Engineer
		before any order or block placement is made. See construction drawings & details for block sizes and locations.
11.01	LS	MOBILIZATION
		The item will be measured and paid according to Section 11,020 Part 1.08.A. Bid item shall also include all
		bonds and insurance.
11.02	LS	STREET LIGHTING
		The item will be paid at the LUMP SUM bid price. No measurement will be made. Lump sum bid price shall include
		all coordination efforts with sub-contractors and Alliant Energy regarding the street lighting installation
		along Main Street. Item shall also include all work, equipment, and materials necessary to install
+		all lighting items including but not limited to conduit, handholes, wiring, pole & controller bases, poles,
		controllers, and fixtures. When complete, street lights shall operate and function as intended before final
		payment is made on the Electrical bid item. If any necessary conduits underneath proposed pavement areas are
		not installed prior to paving, CONTRACTOR shall be responsible for all costs associated with boring conduit
		lines; no sawcutting, removal and replacement of new pavements will be allowed.
+		TITIES, TO SUMERICATINE, TEMPOVAL AND TEPTACEMENTS OF NEW PAVEINETIES WILL BE ALLOWED.
		Material specs**
		Hutti Tut Specs

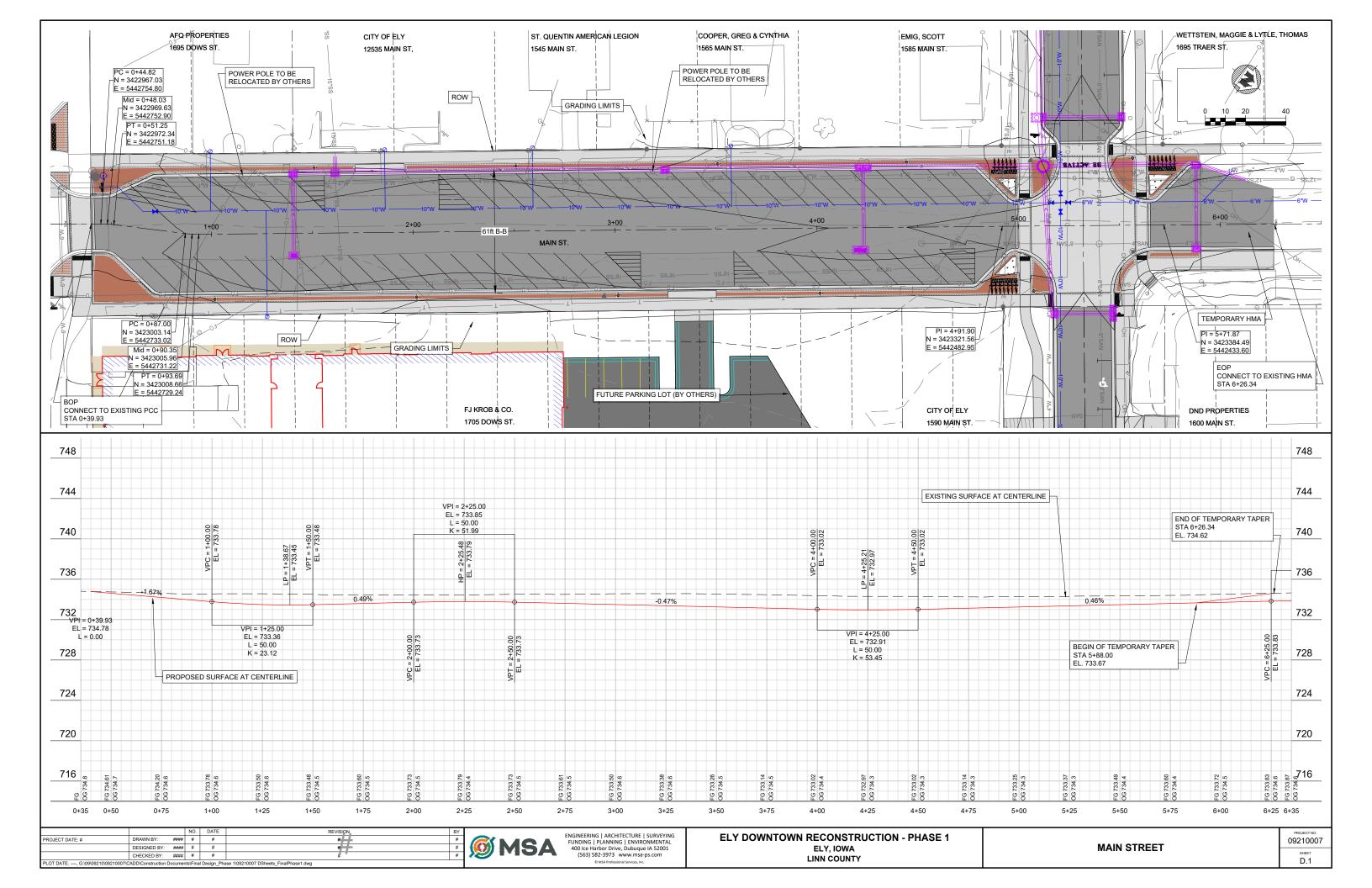
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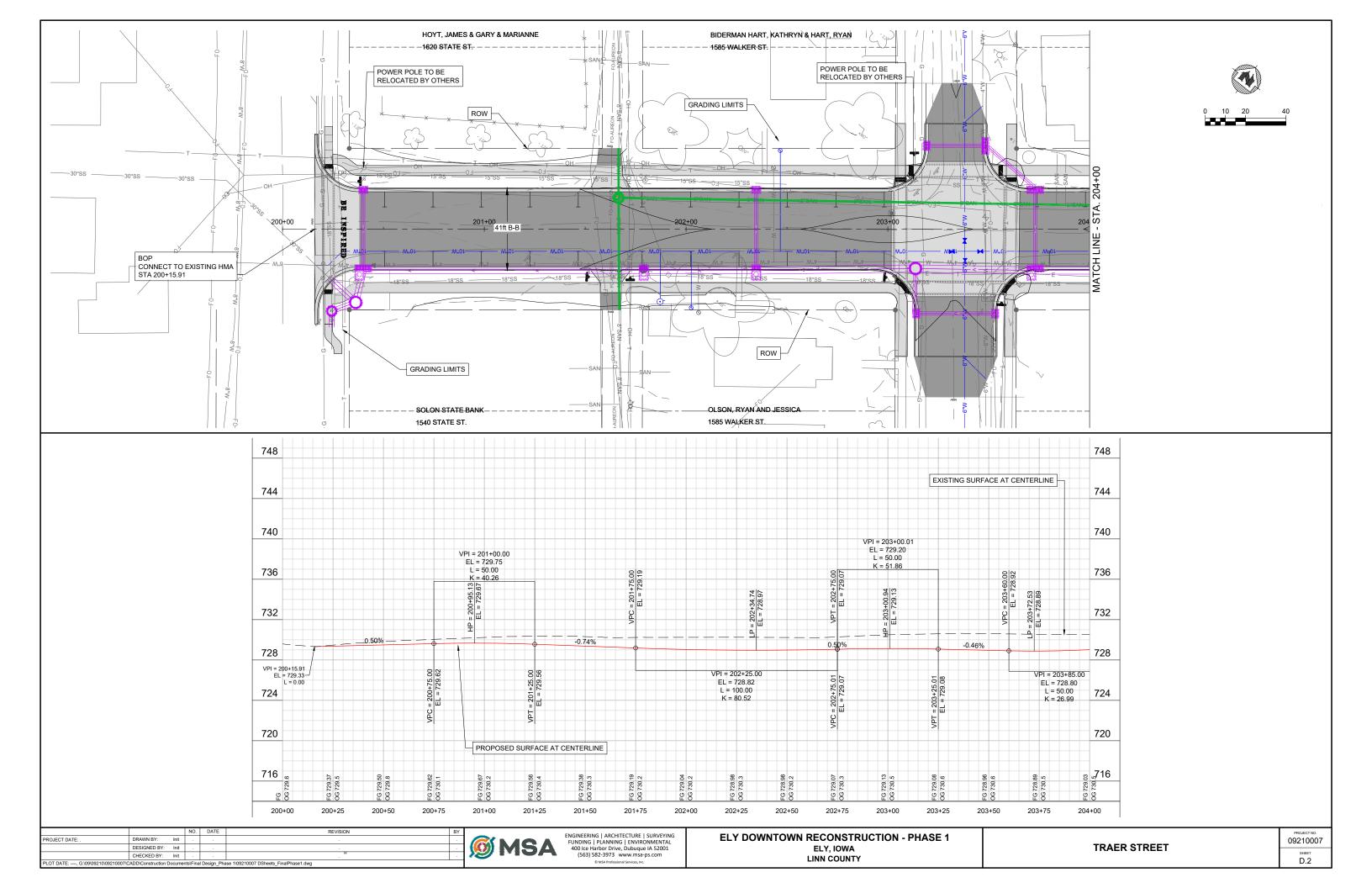


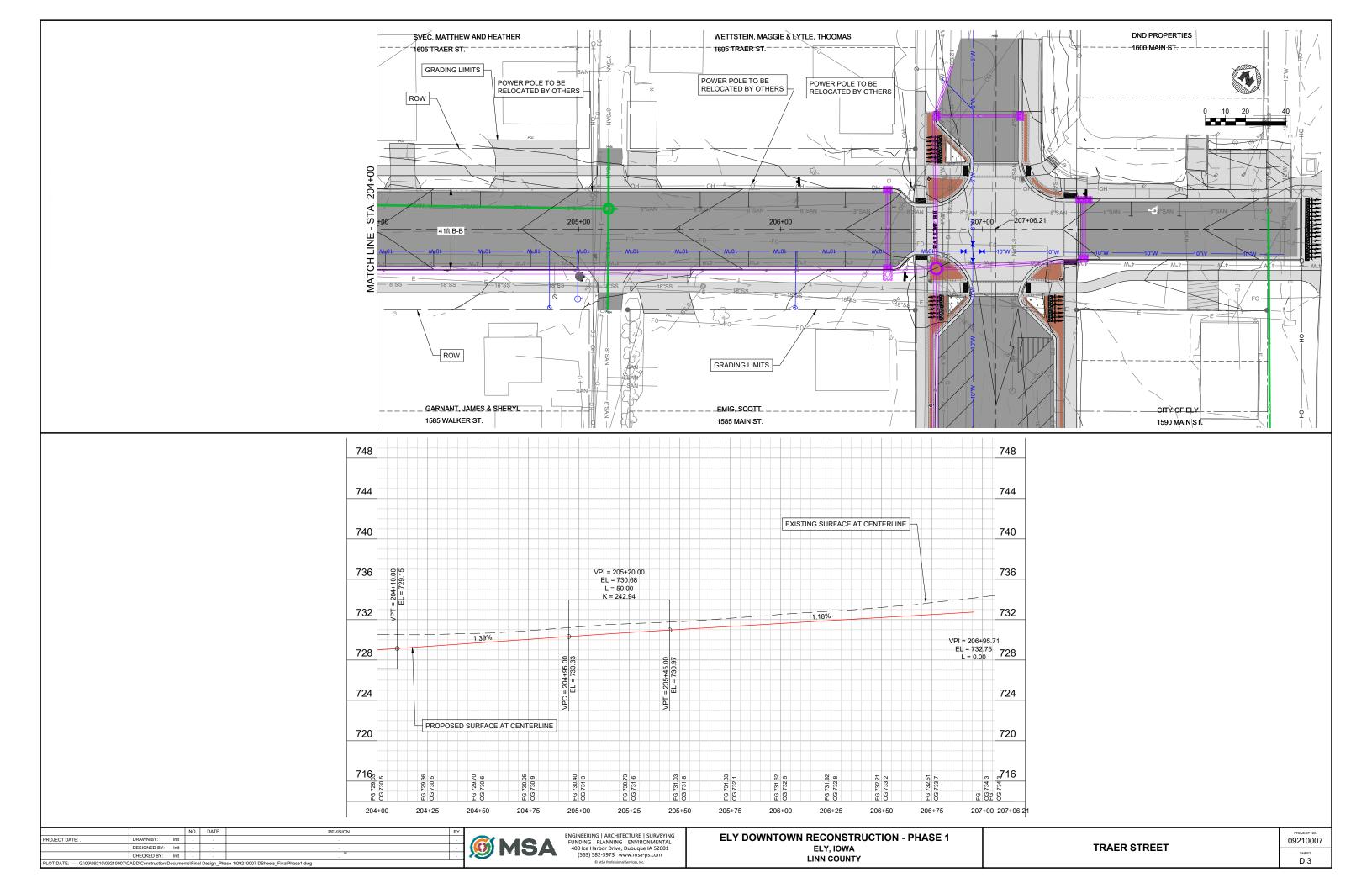
11.03	LF	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED
		The item will be measured and paid according to Section 8020 Part 1.08.B. Item shall be install as shown in the
		plans.
11.04	EA	CONCRETE WASHOUT
		The item will be measured and paid according to Section 11,050 Part 1.08.A. Lump sum bid price also includes
		the maintenance of concrete washout as necessary, and the removal of concrete washout.
11.05	LS	VIBRATION MONITORING

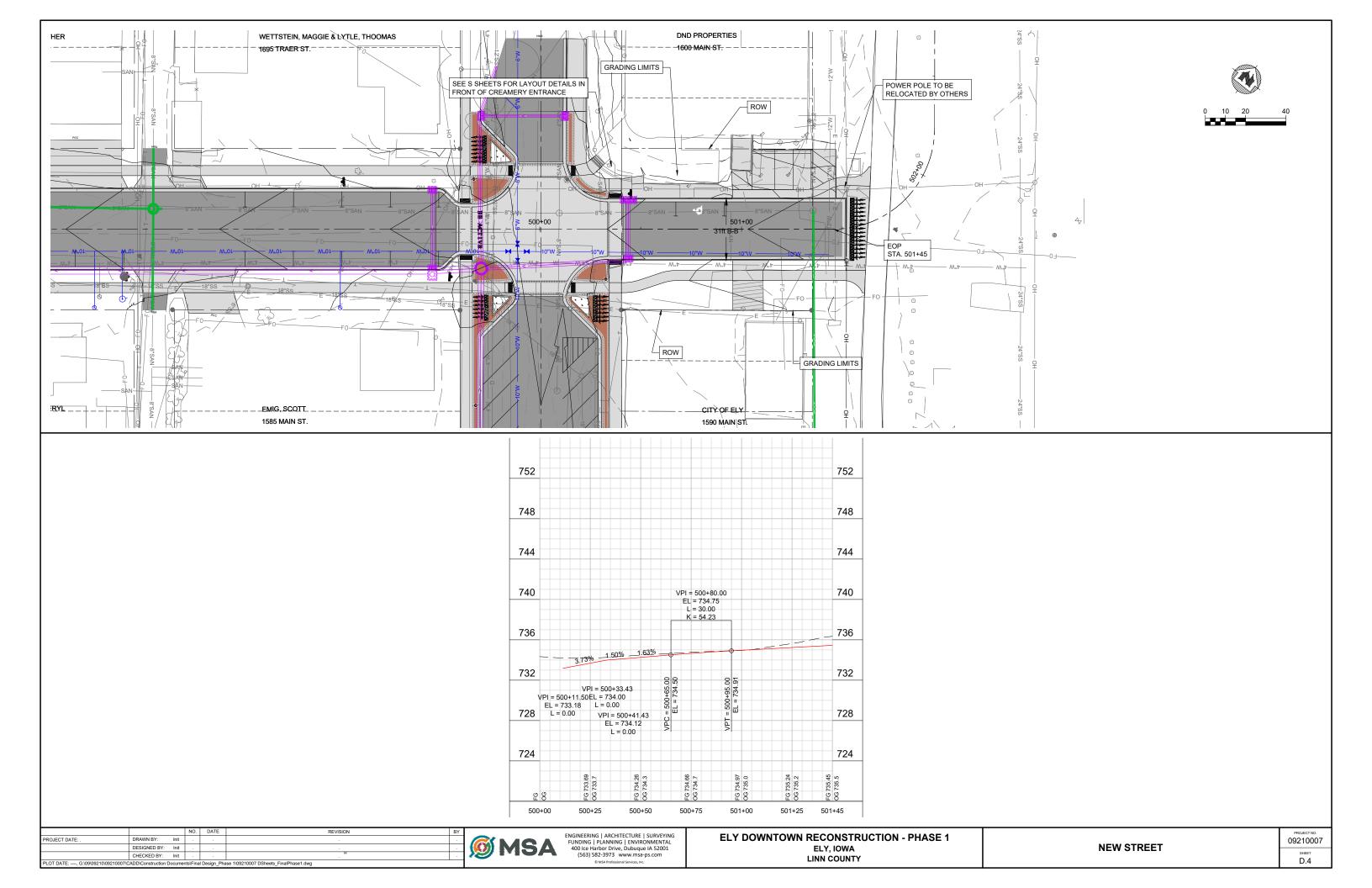
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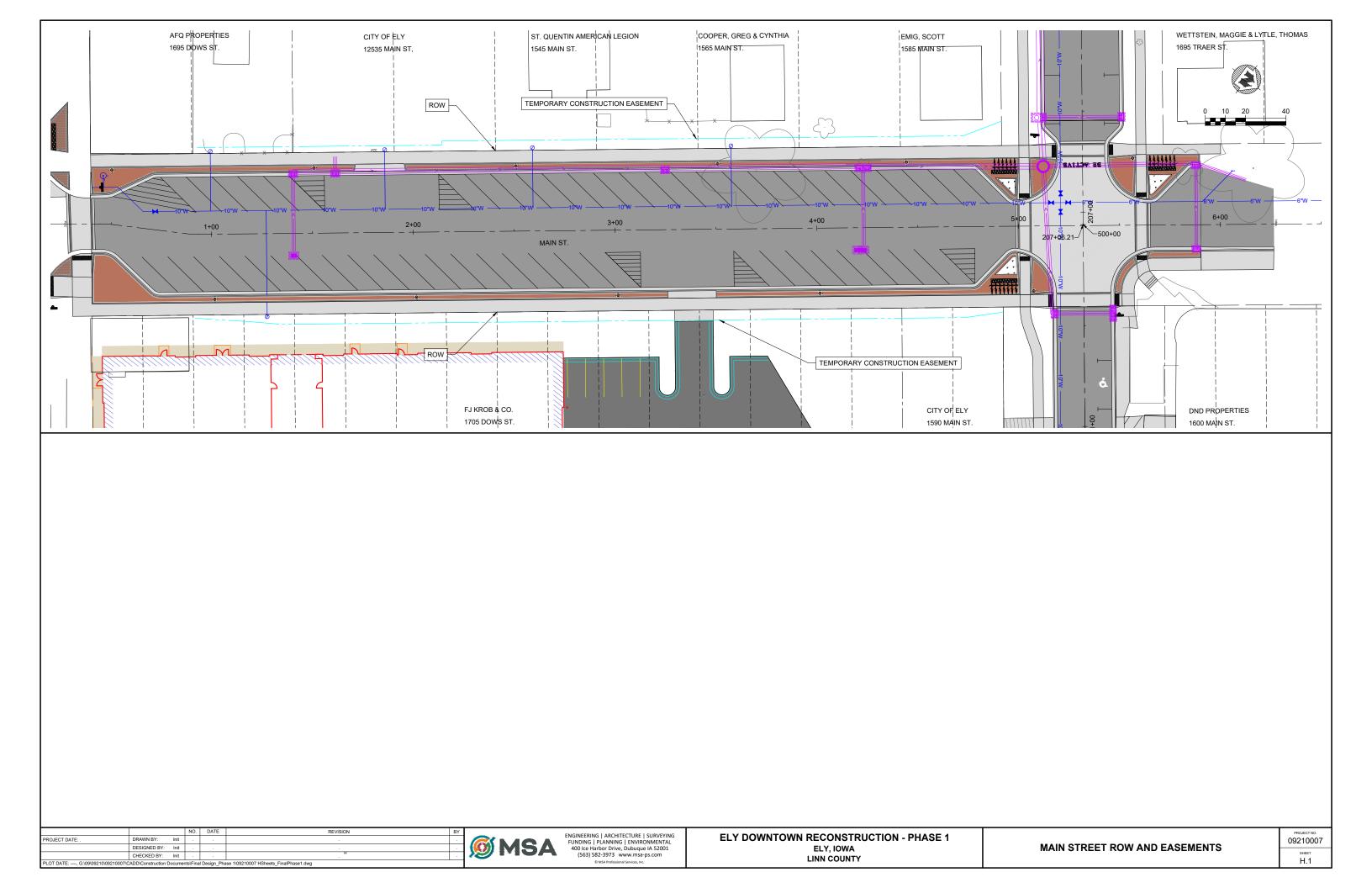


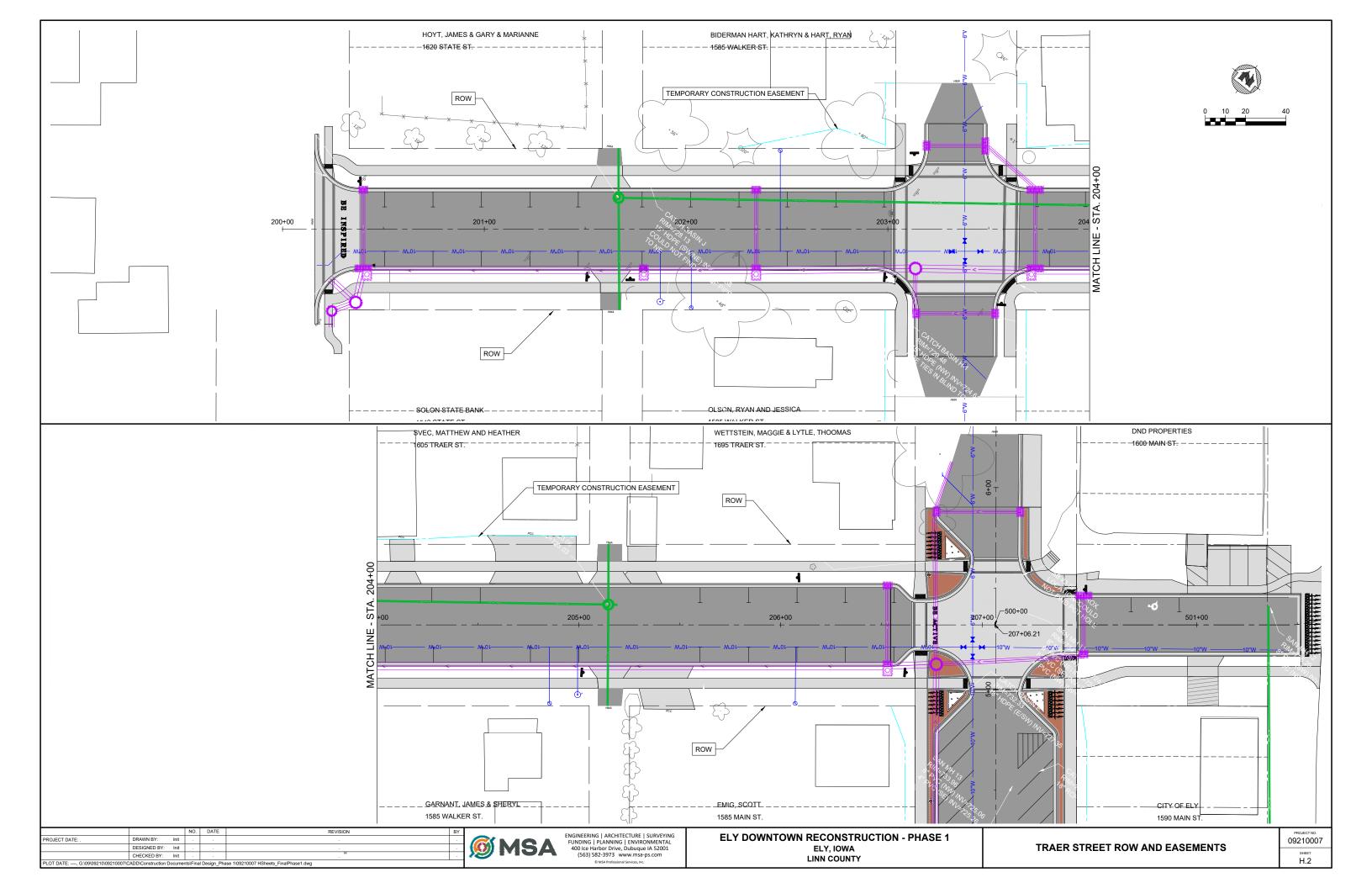


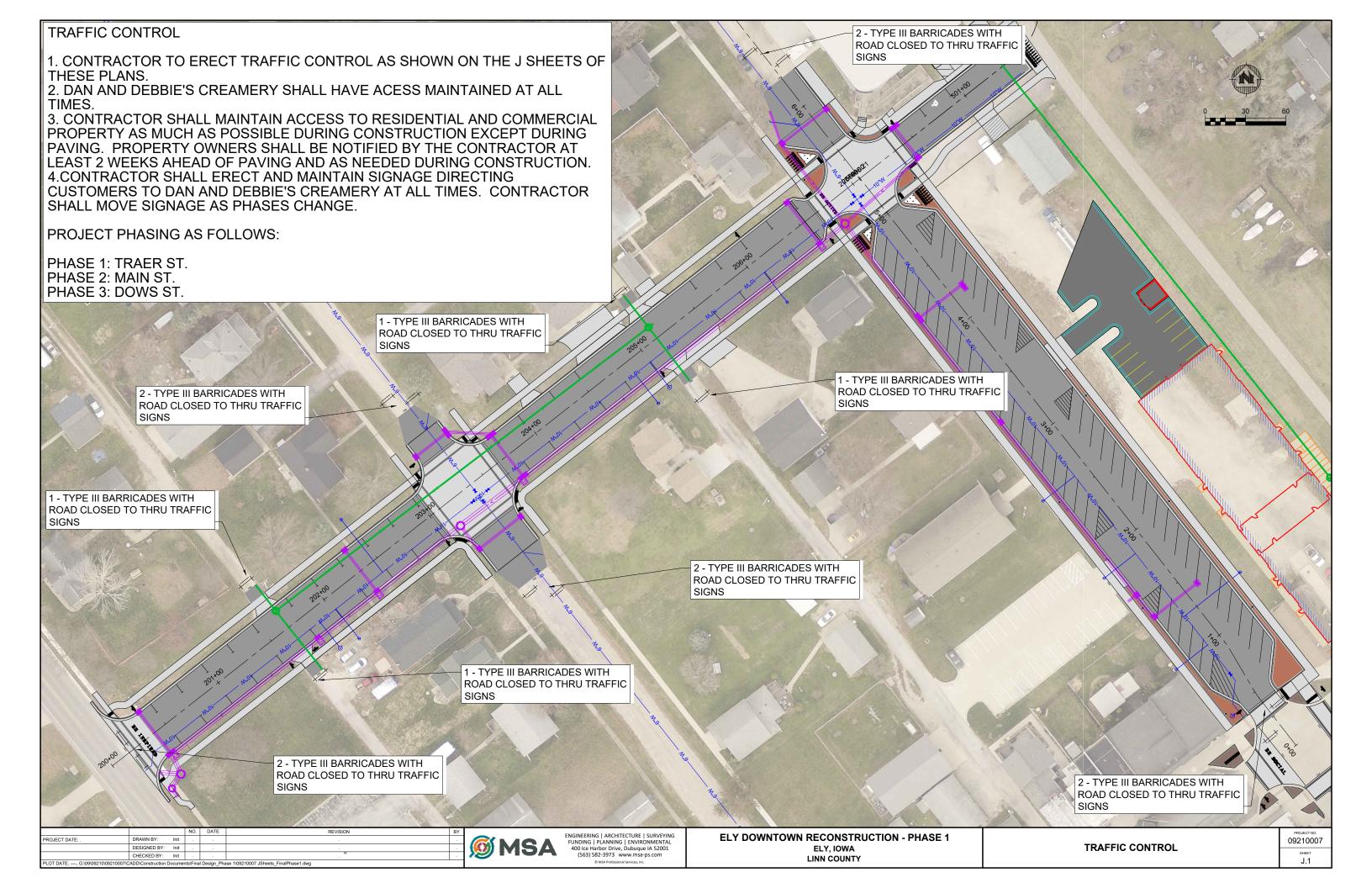


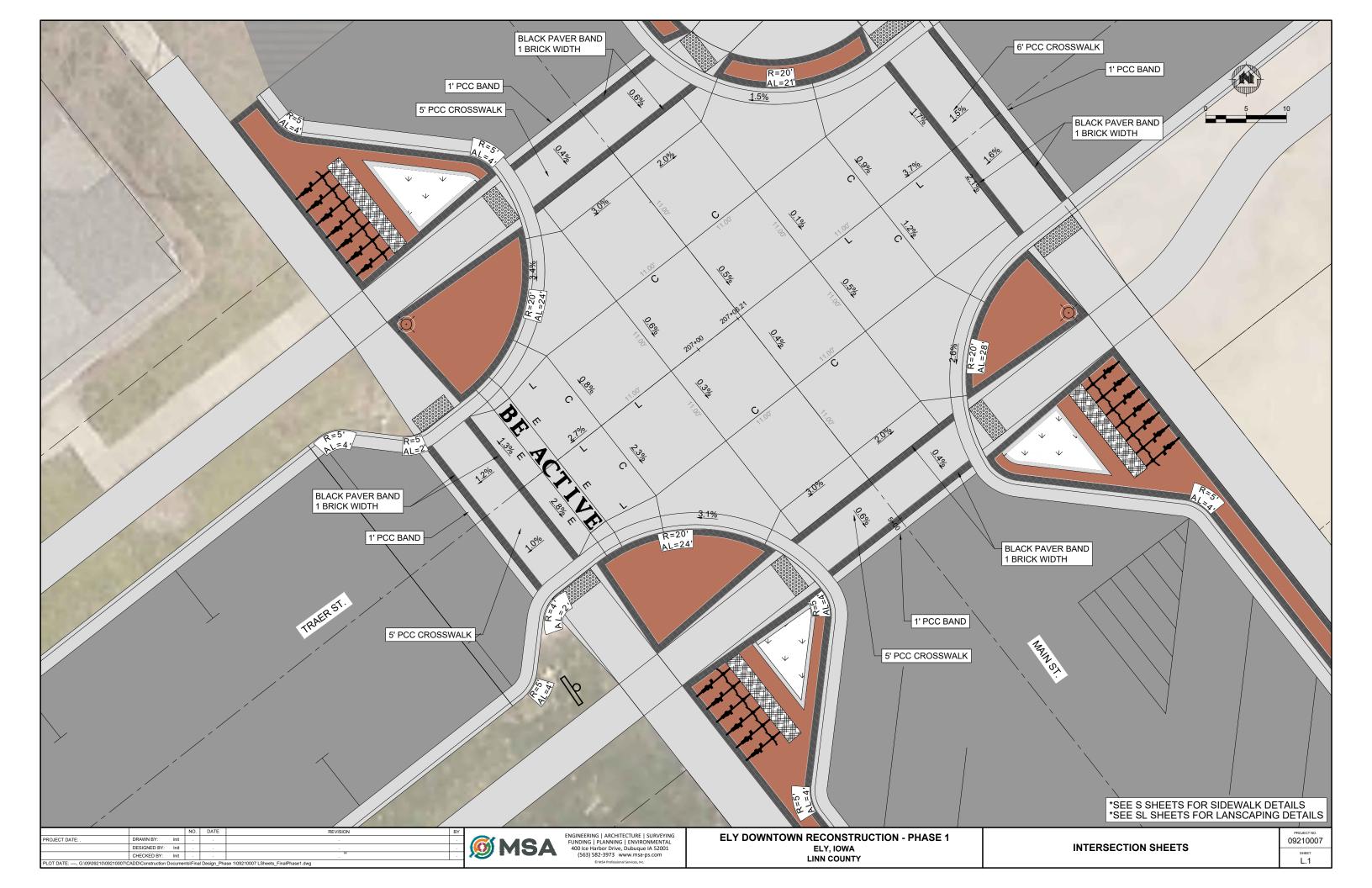


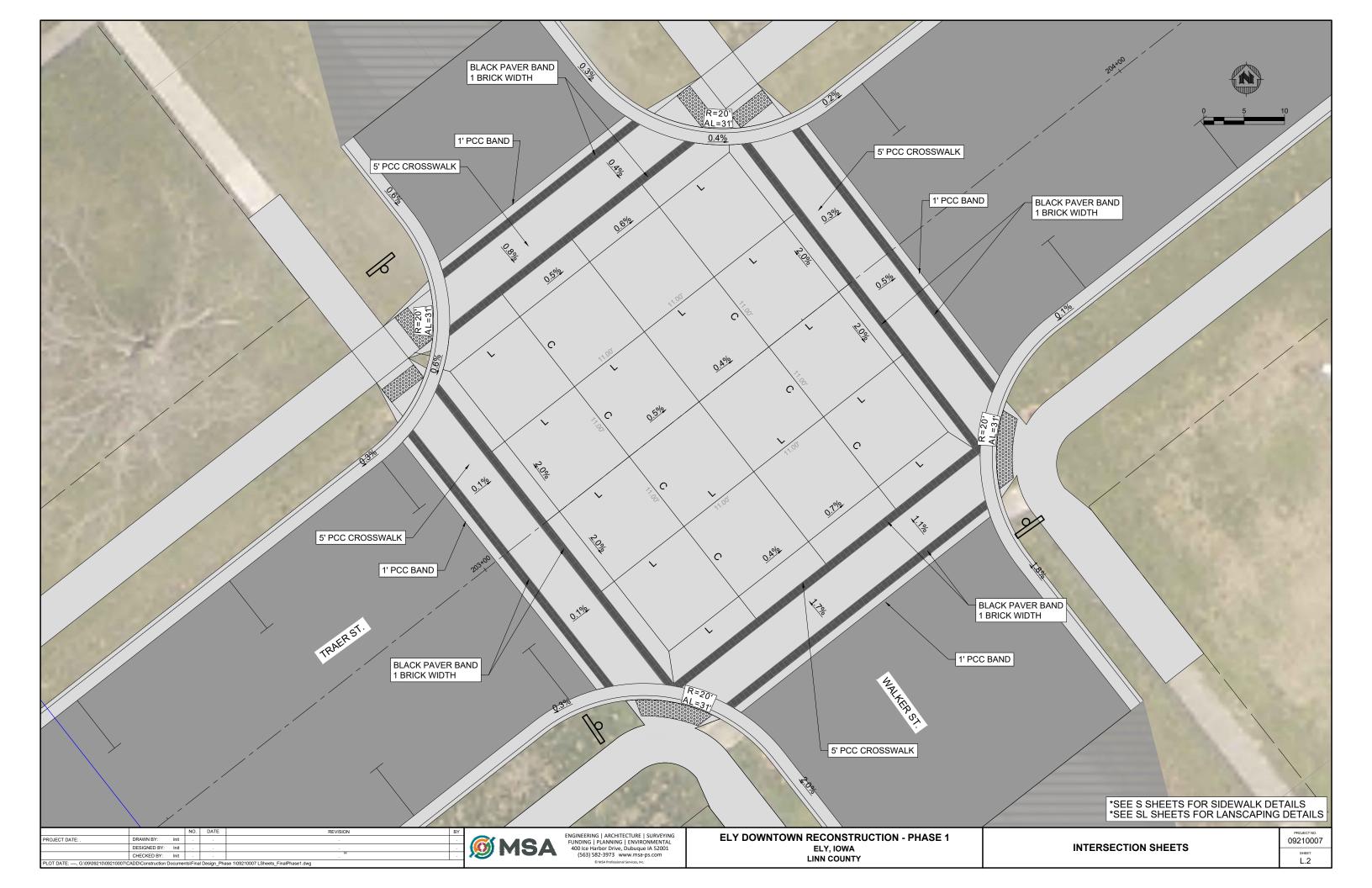


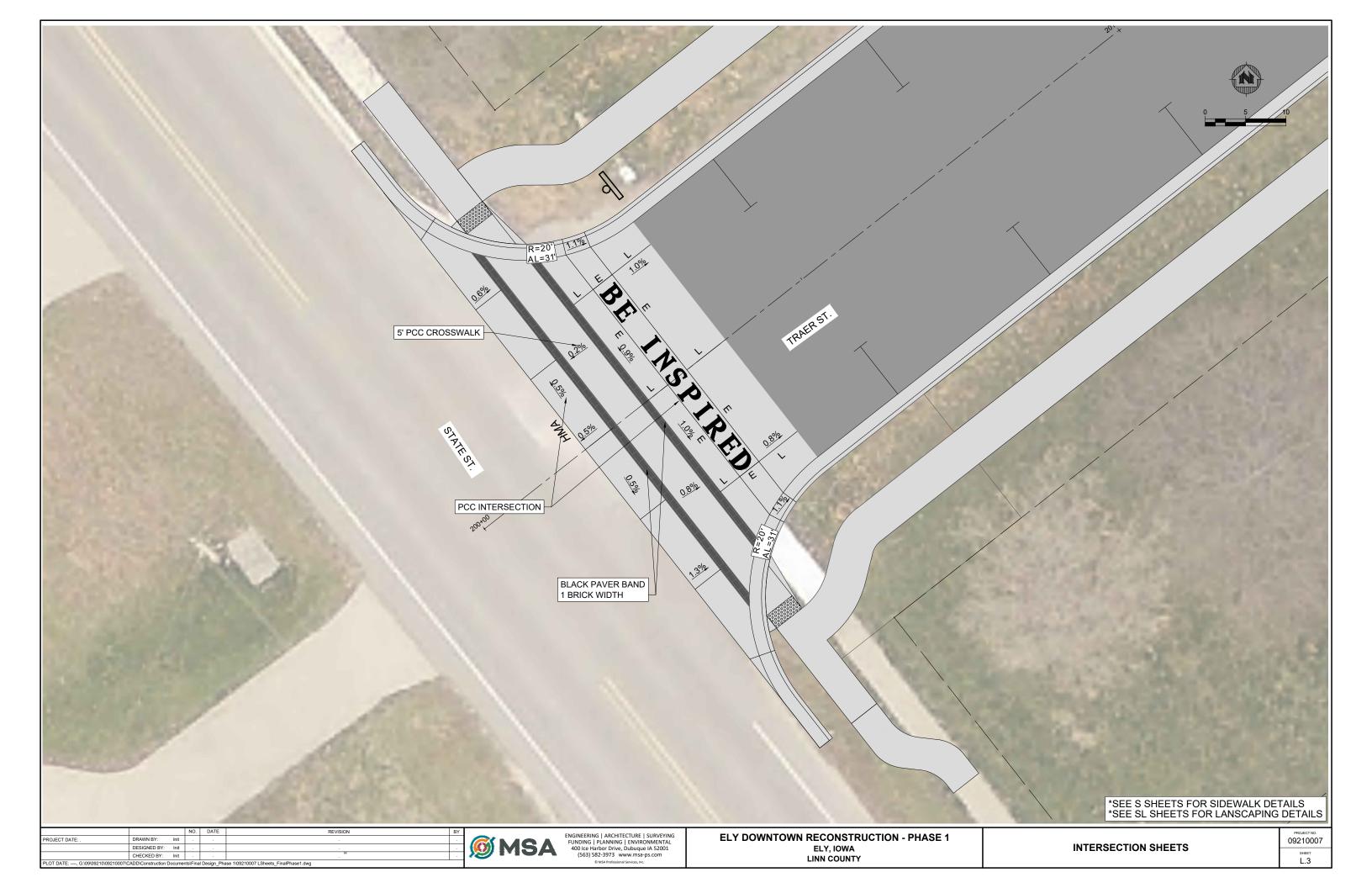


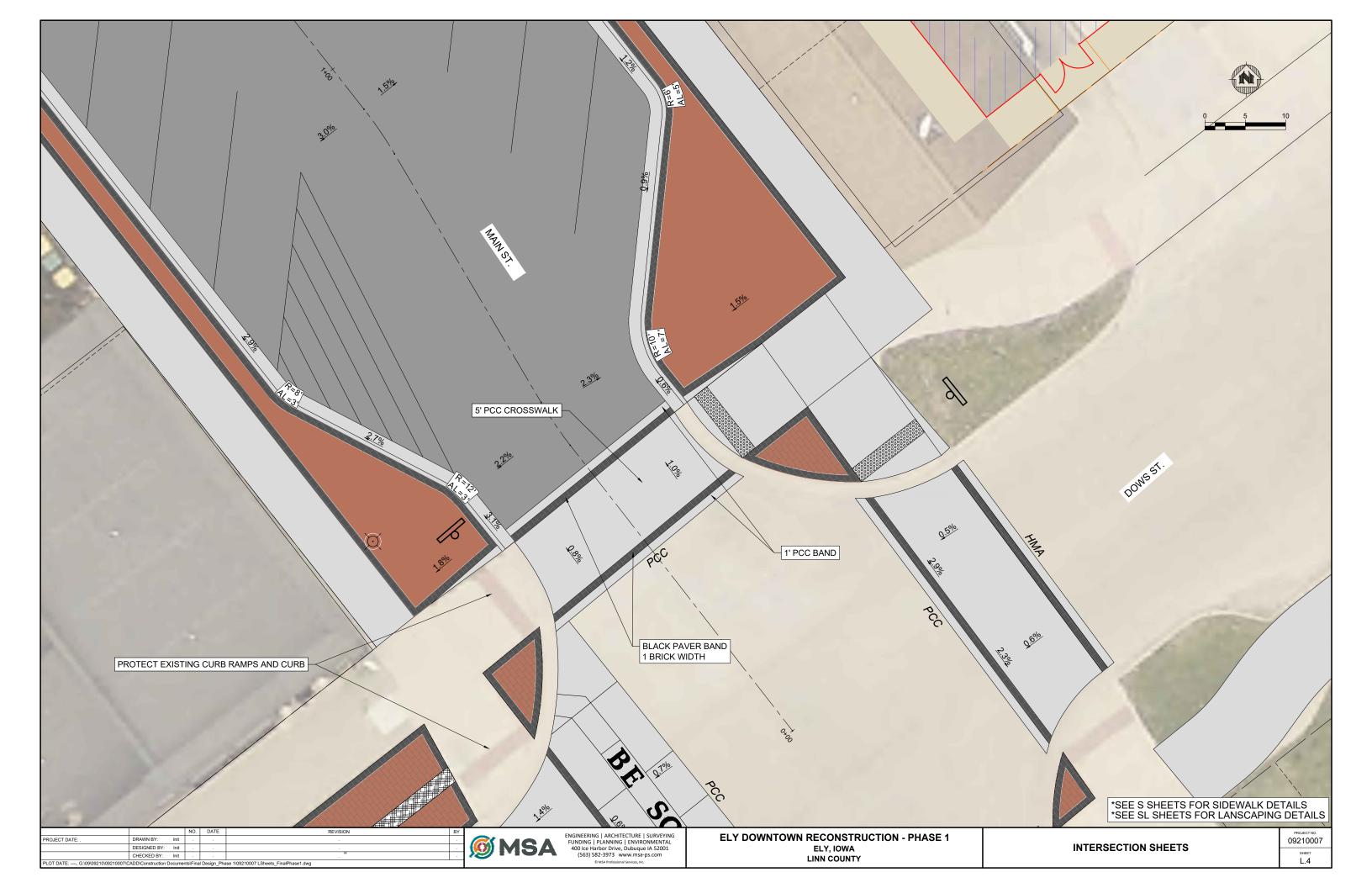


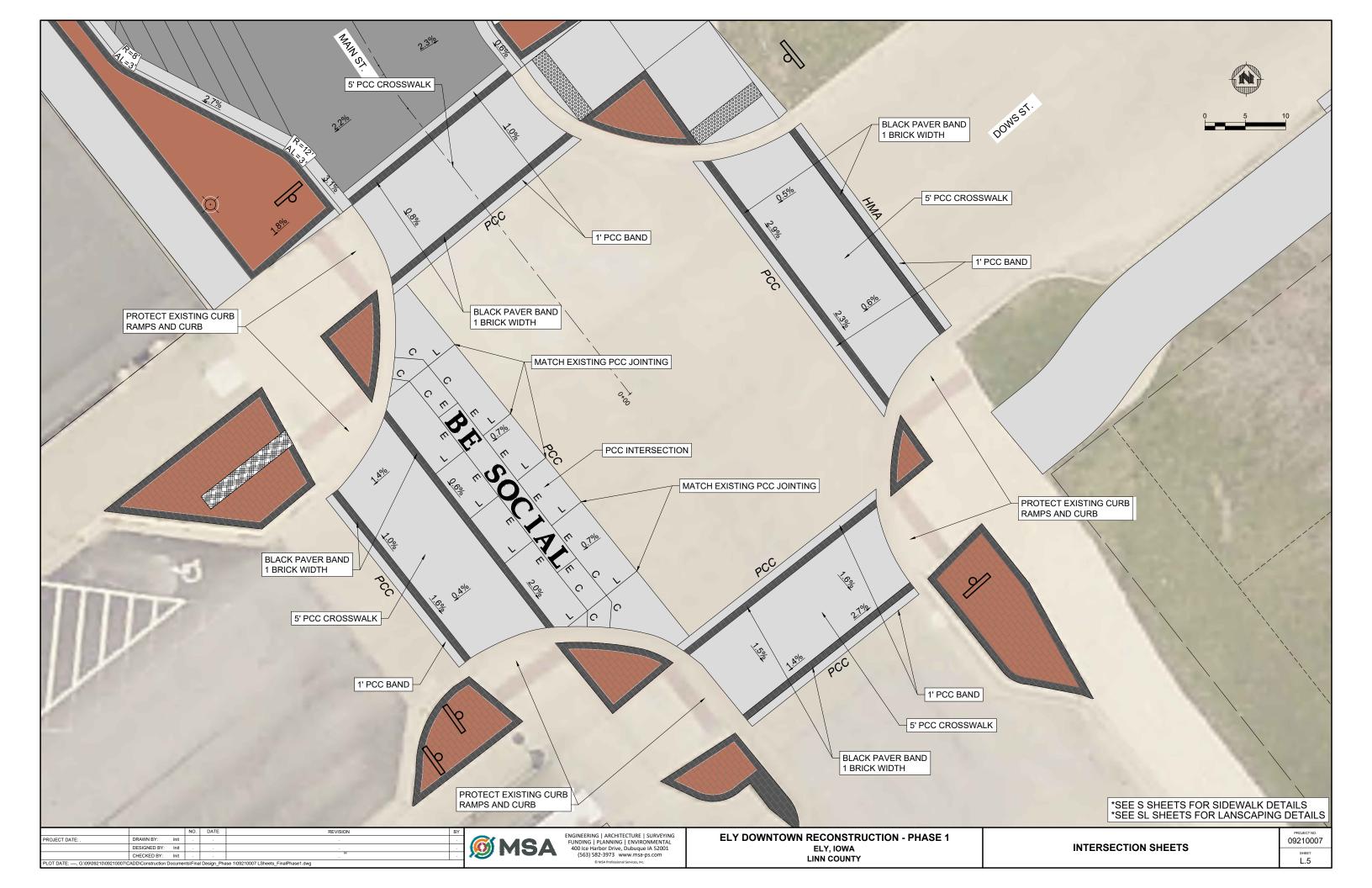


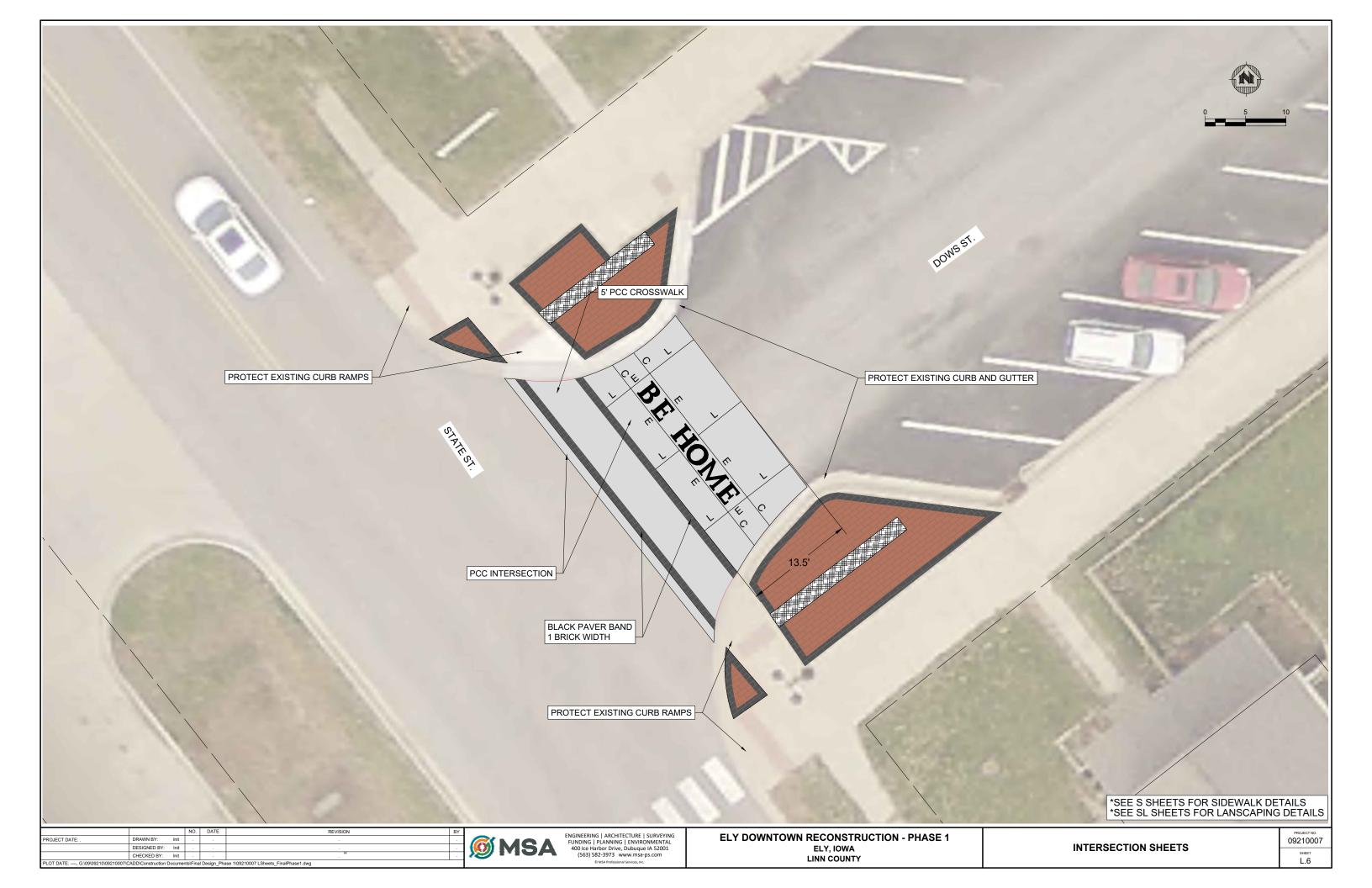


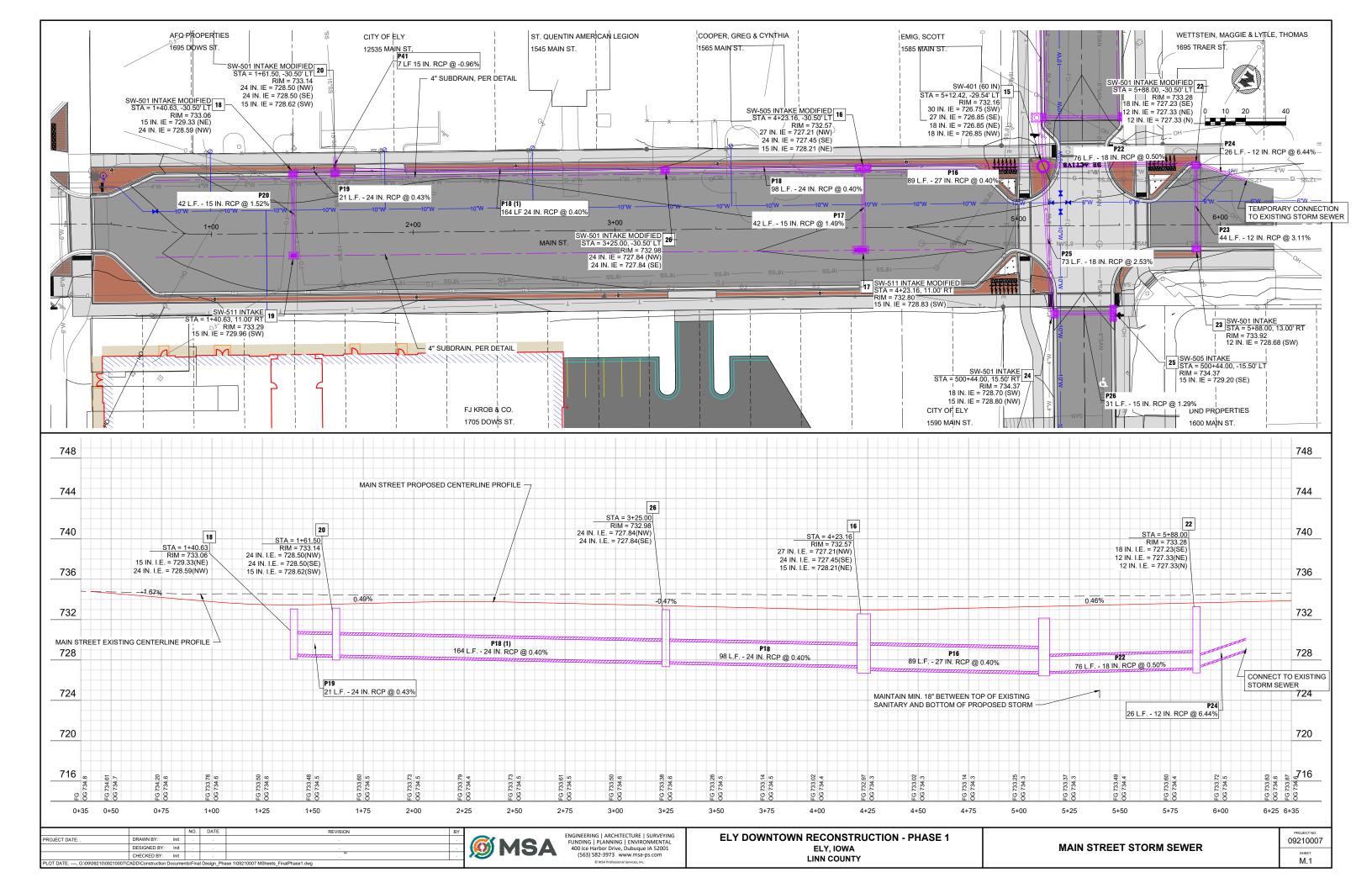


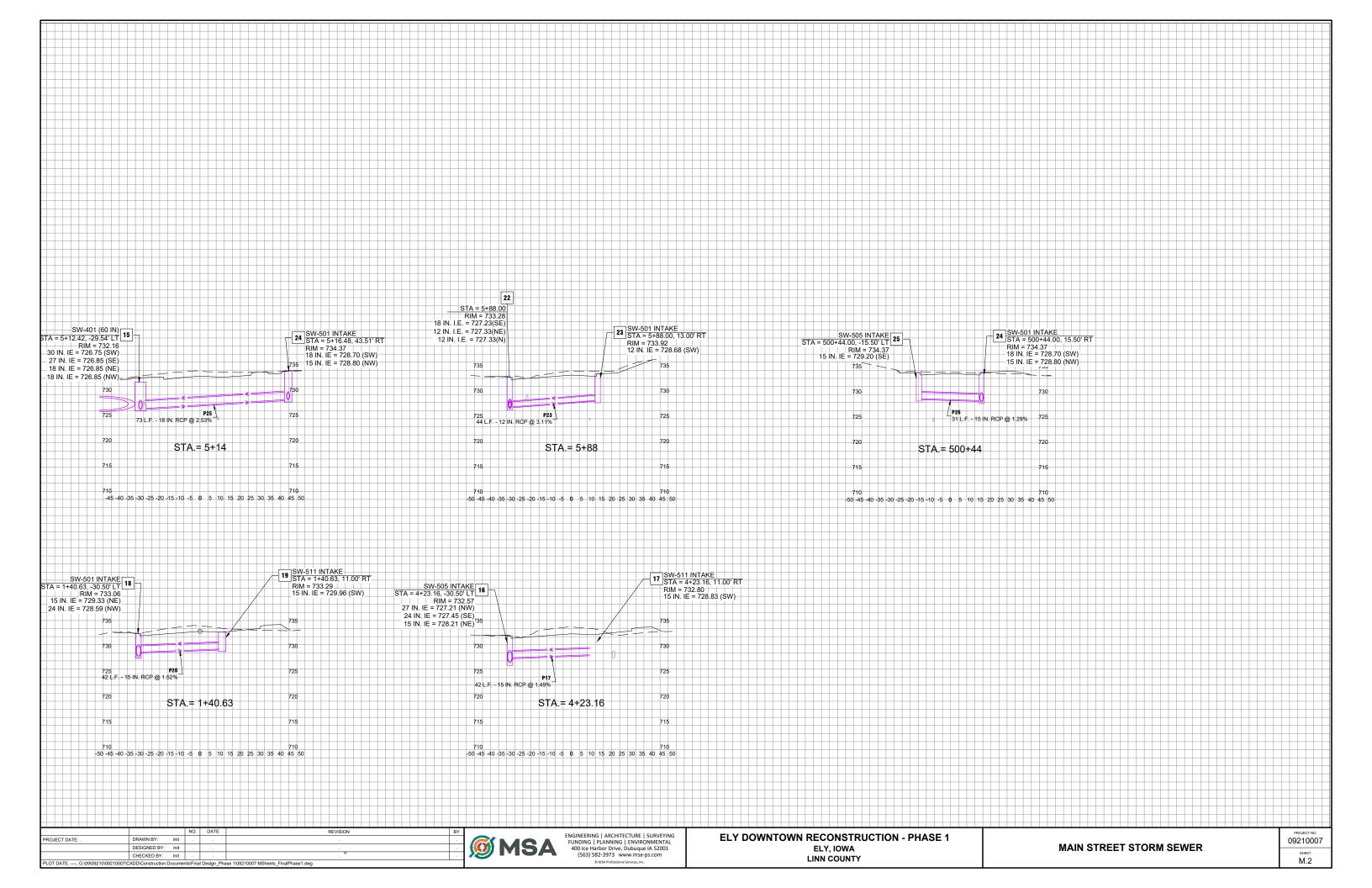


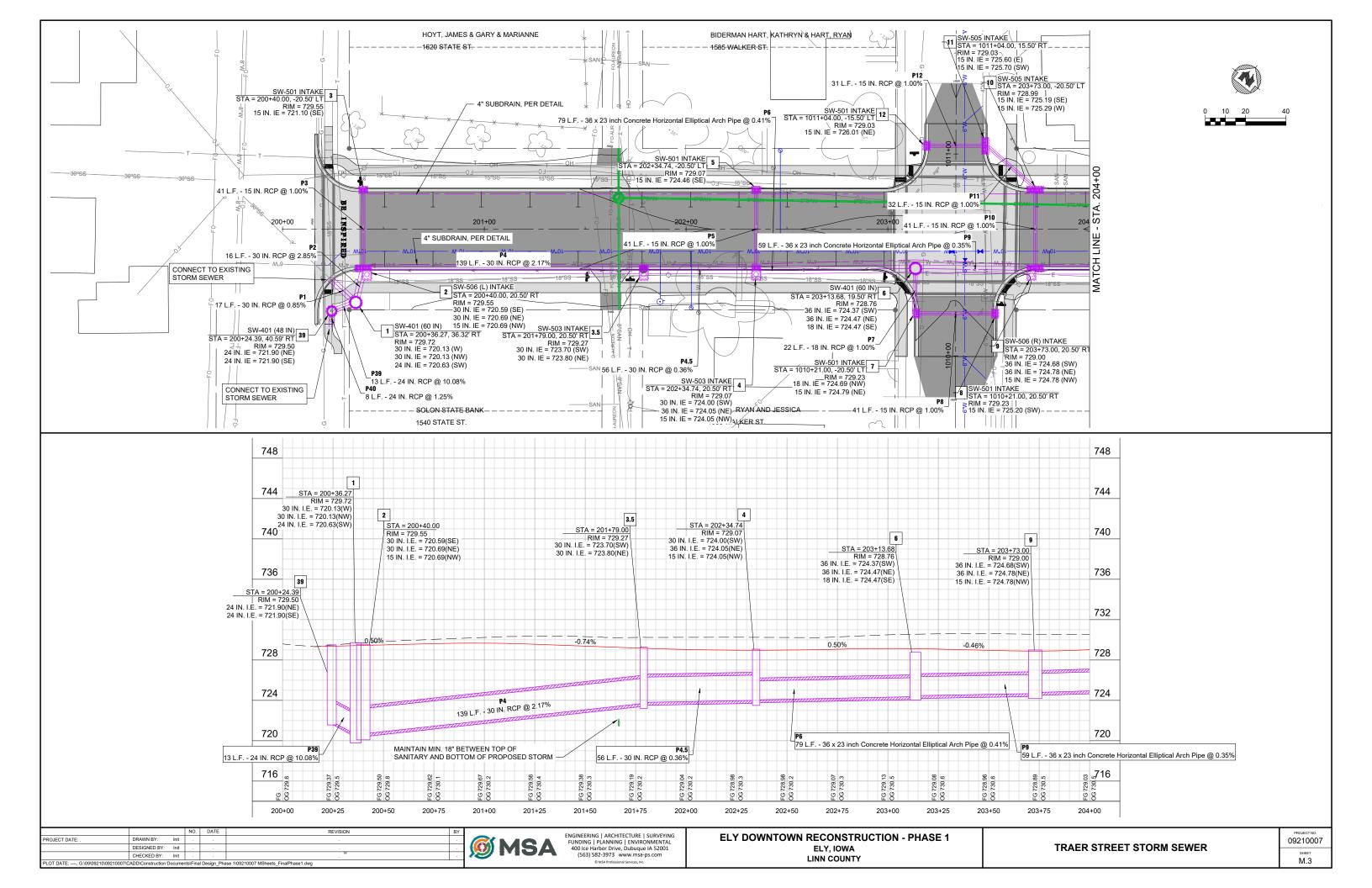


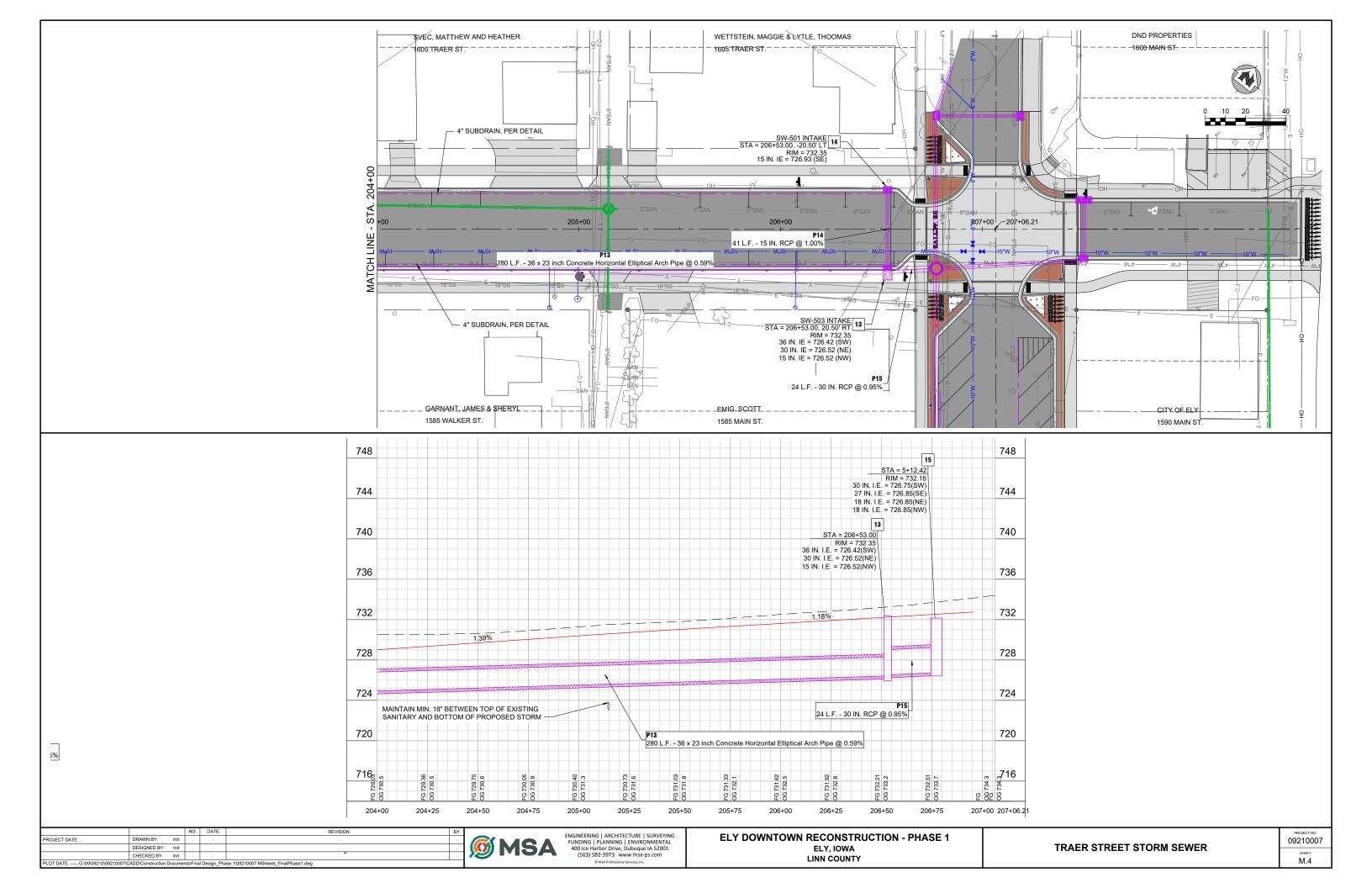


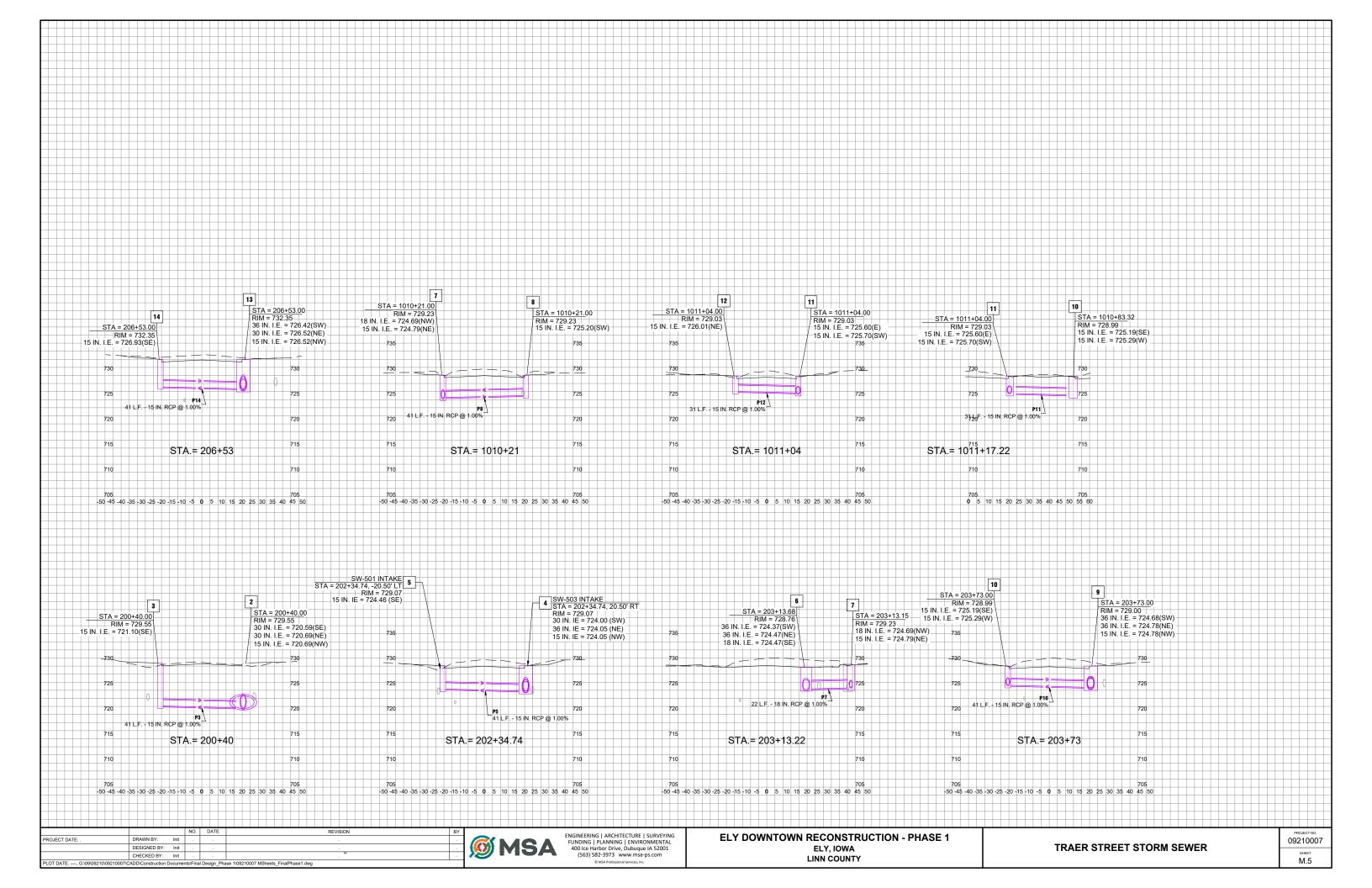


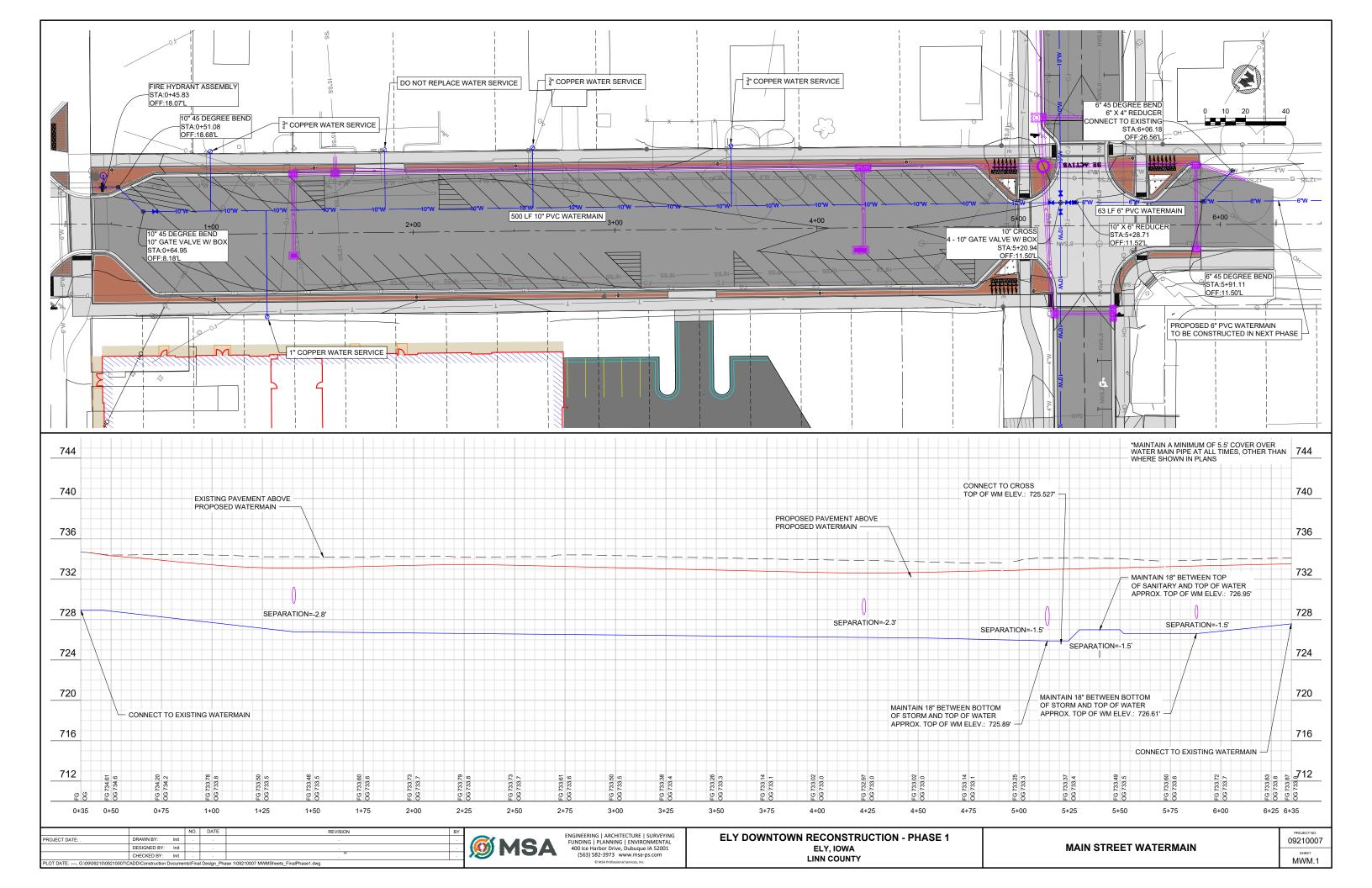


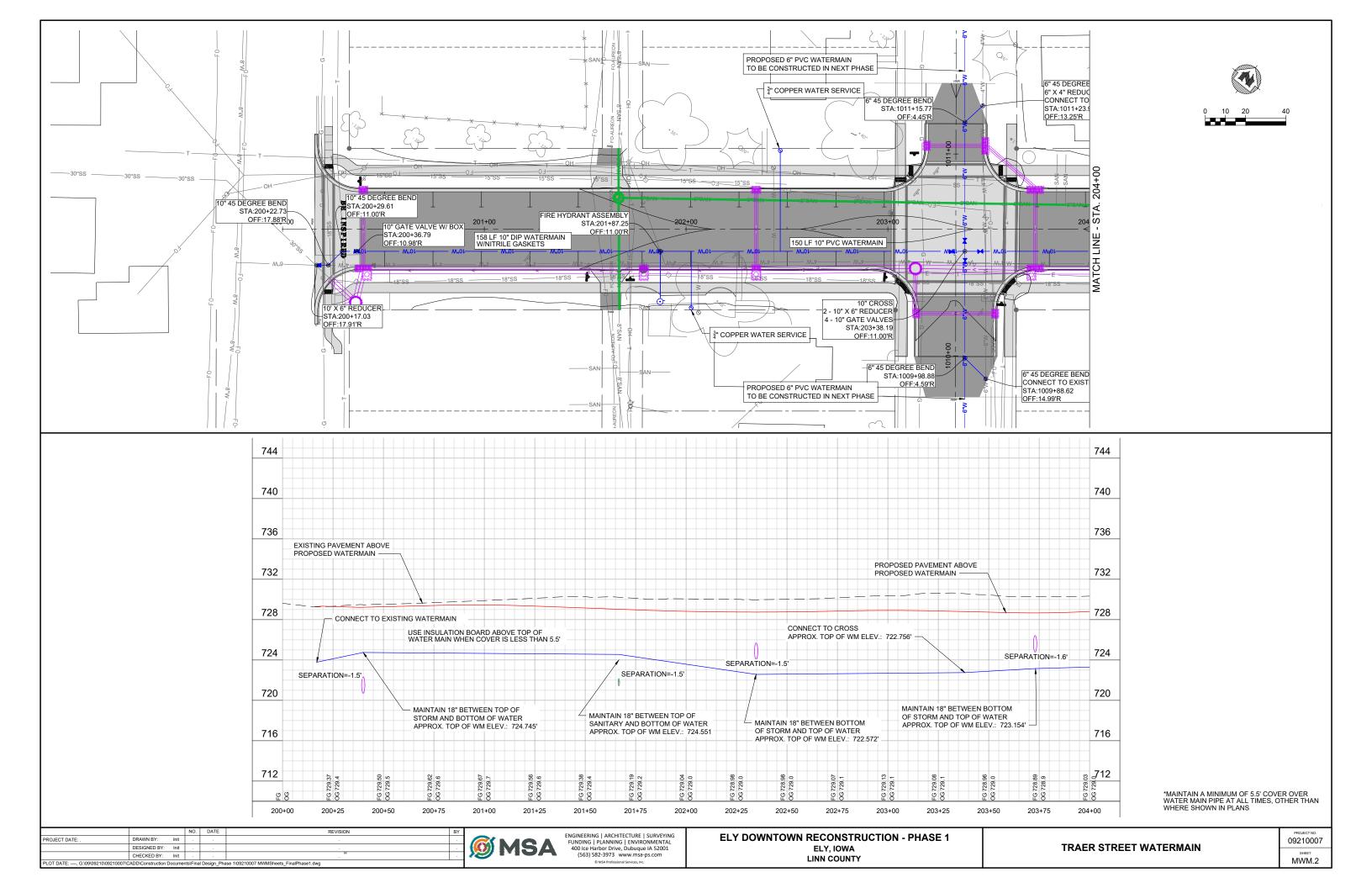


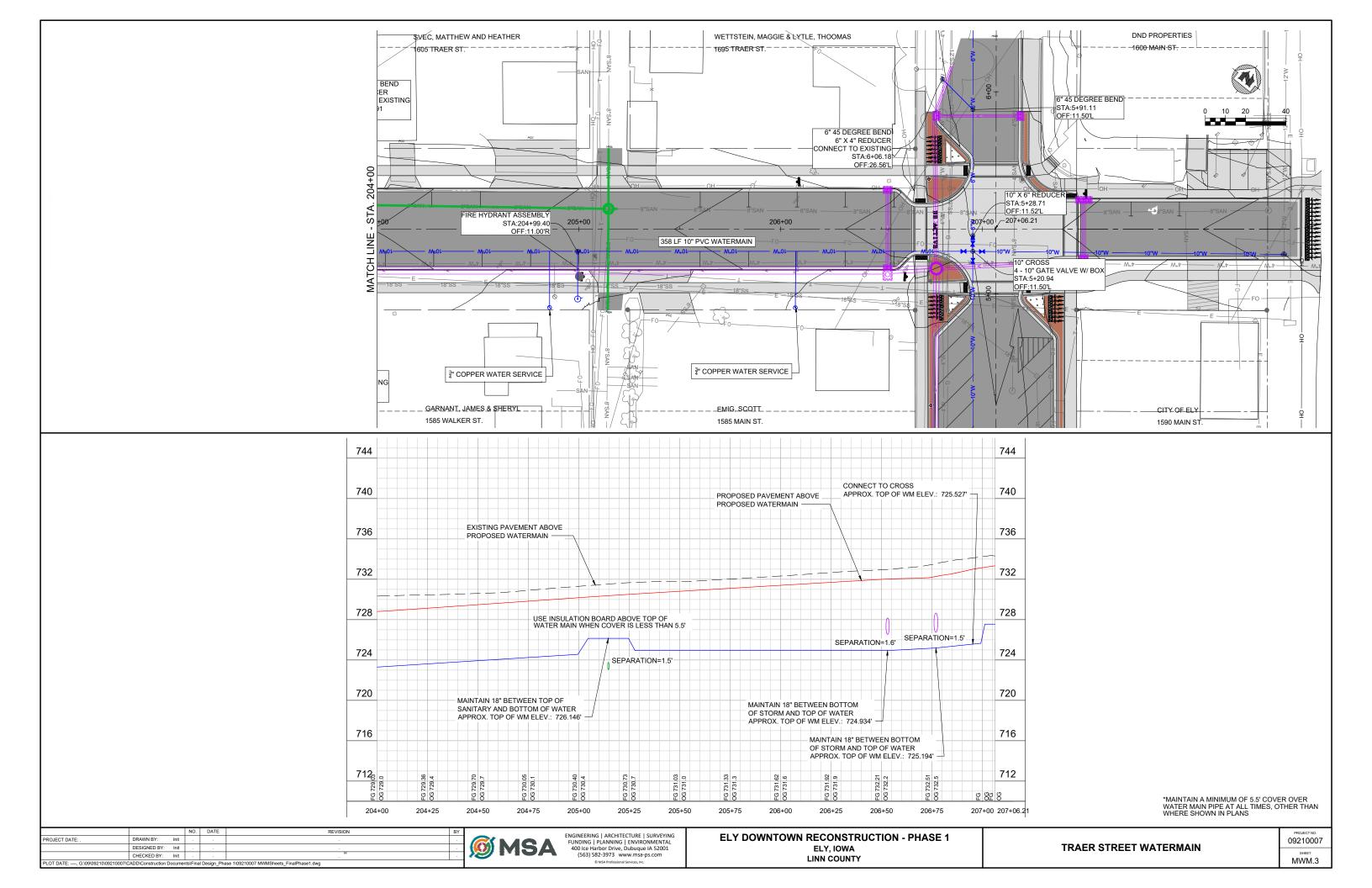


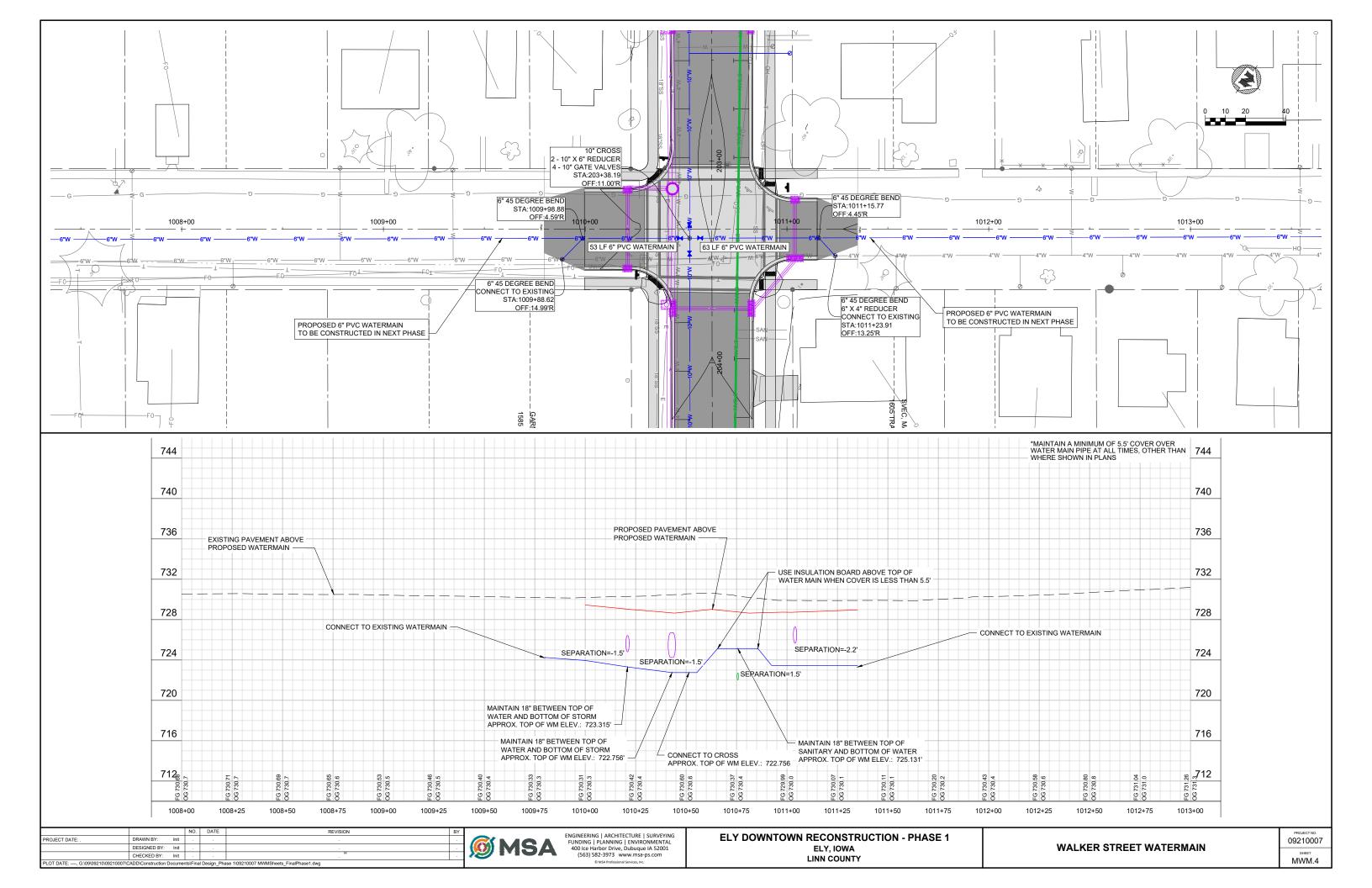


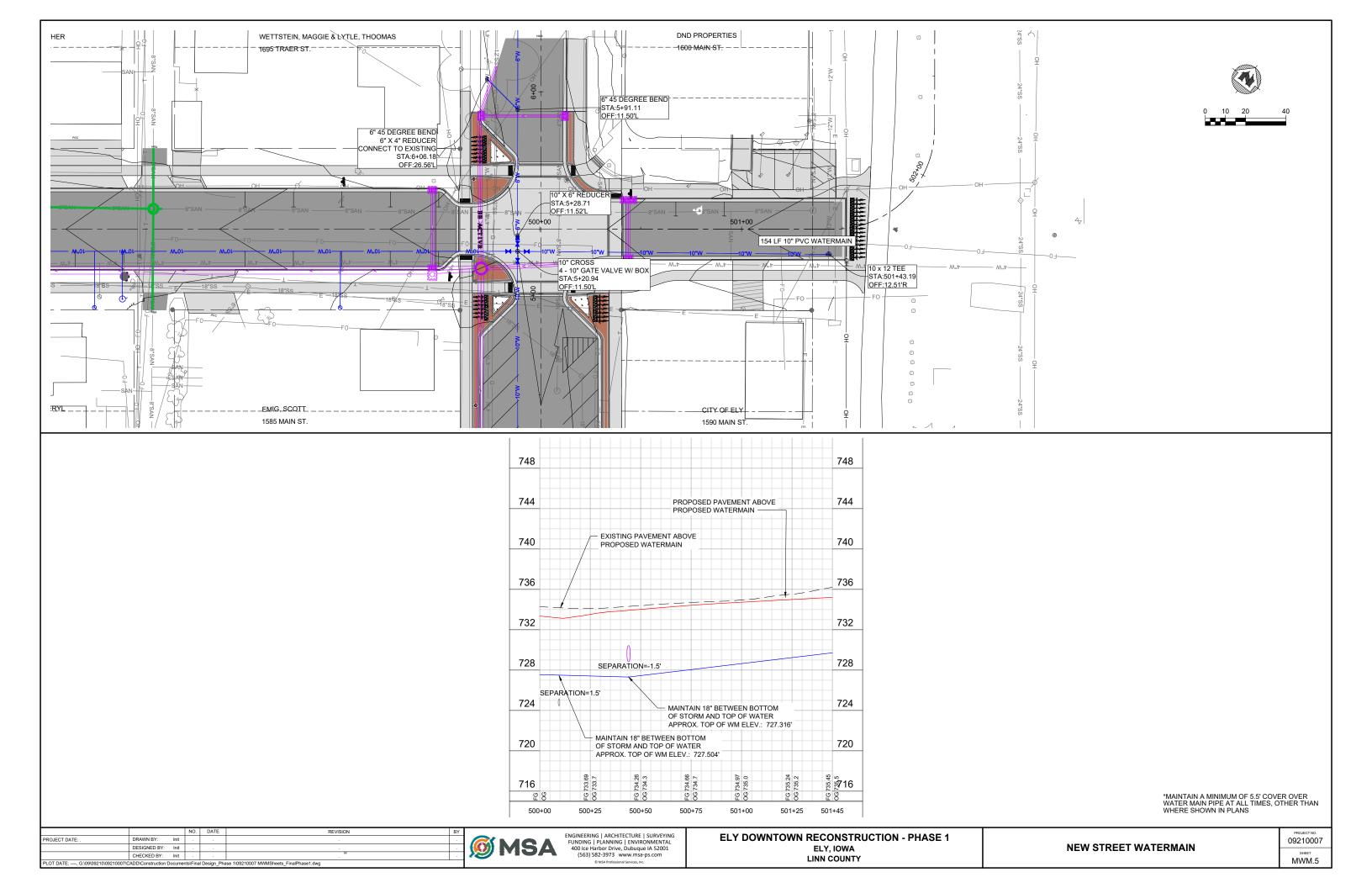


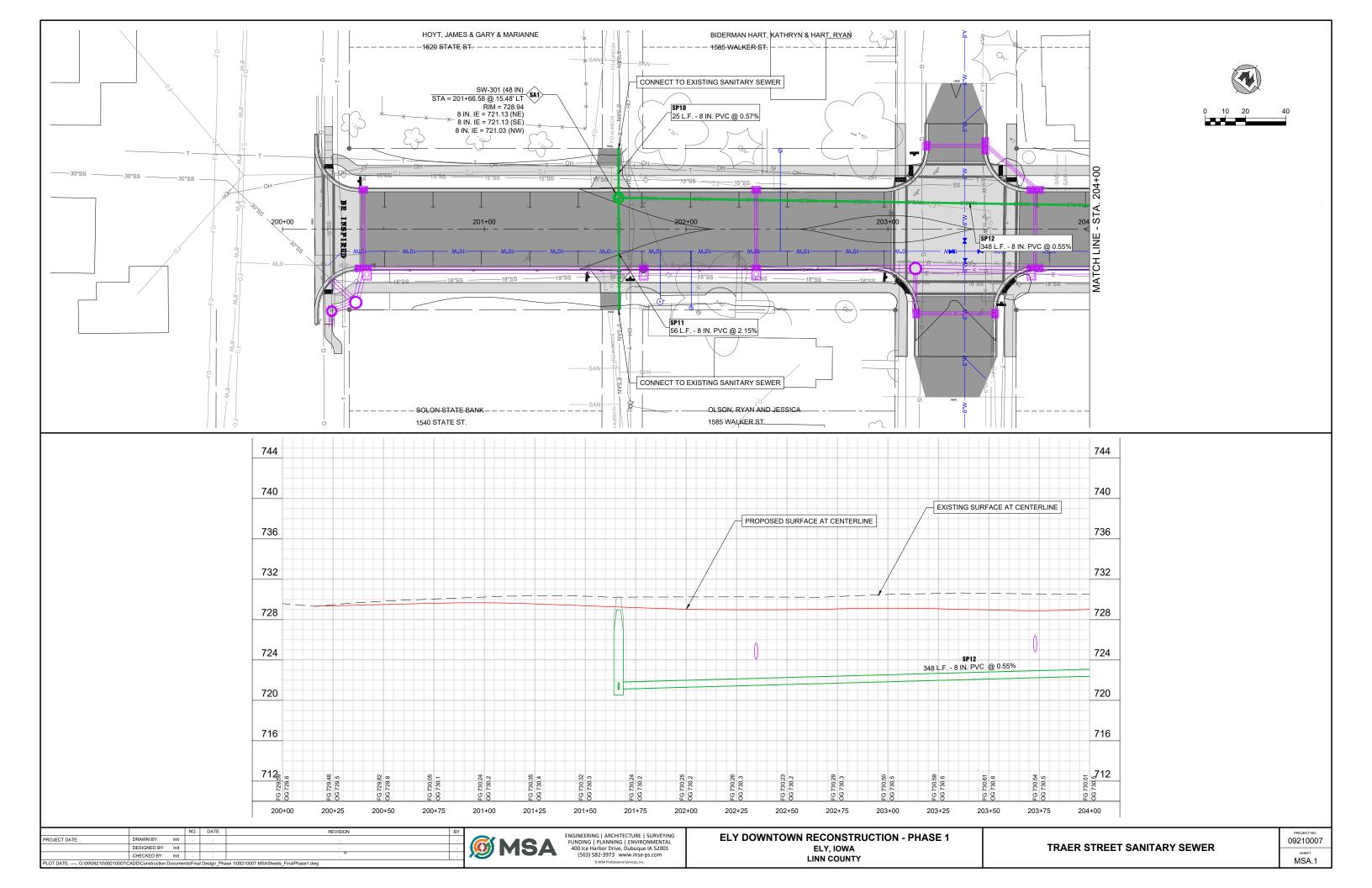


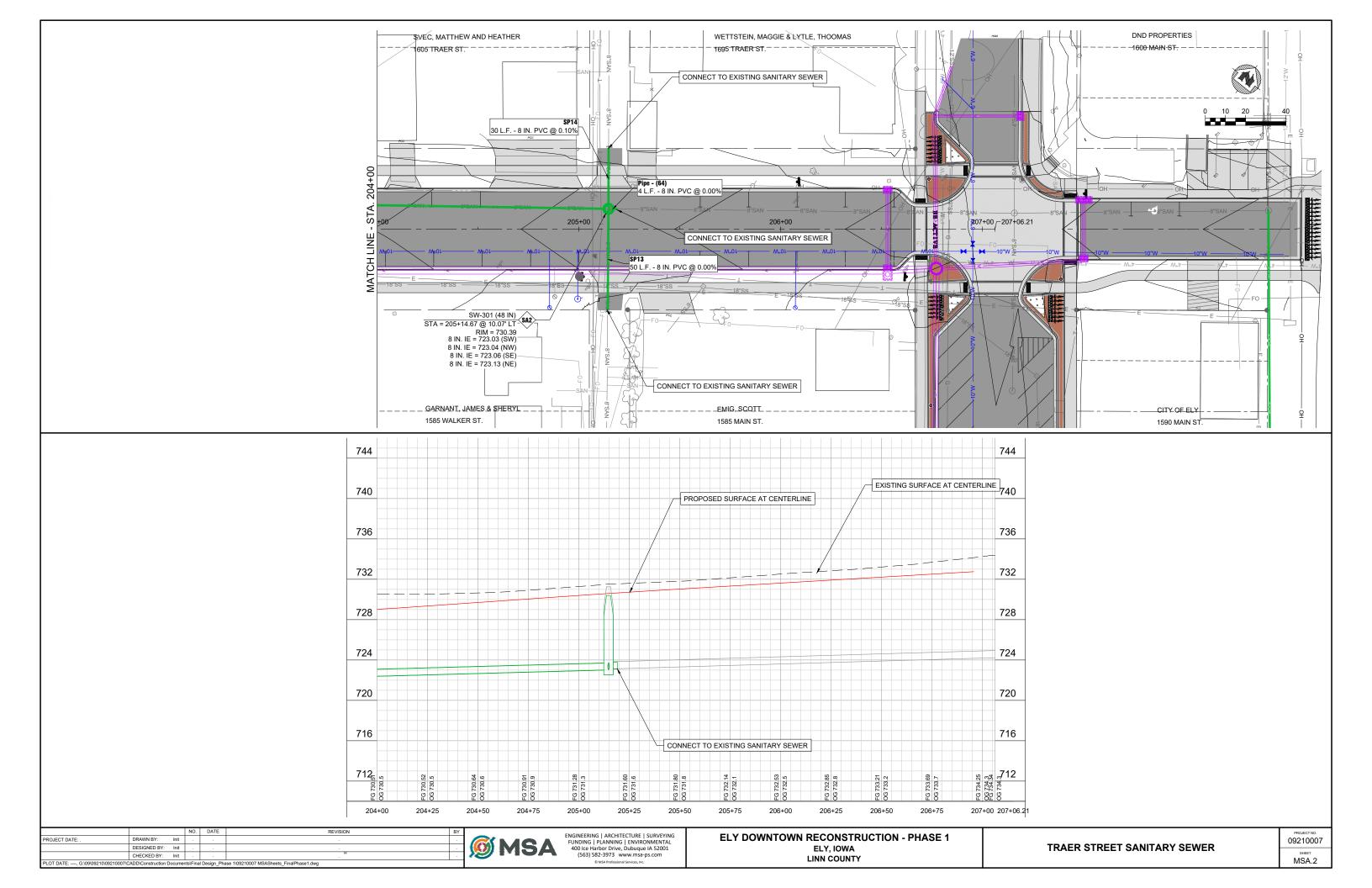


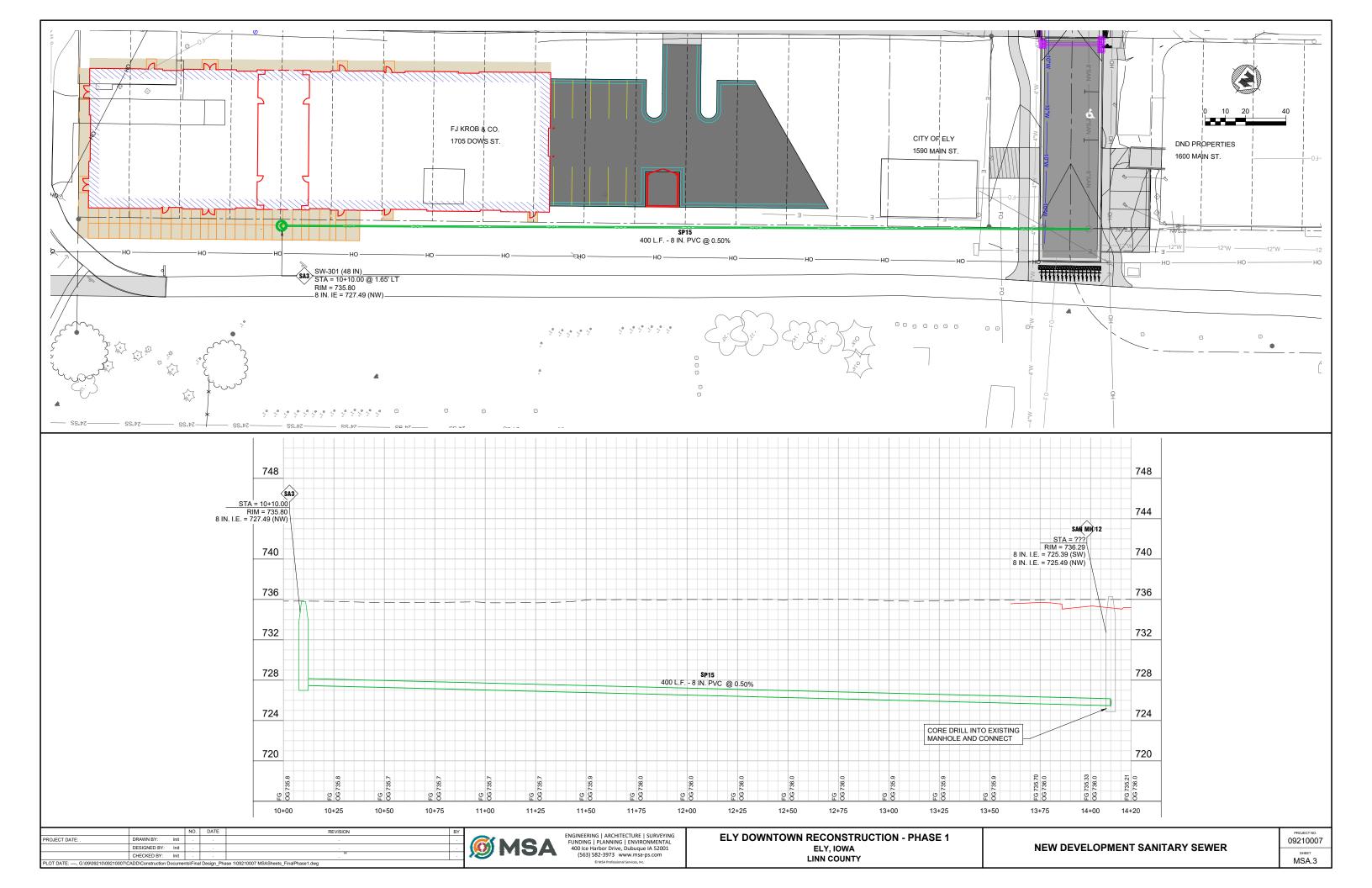


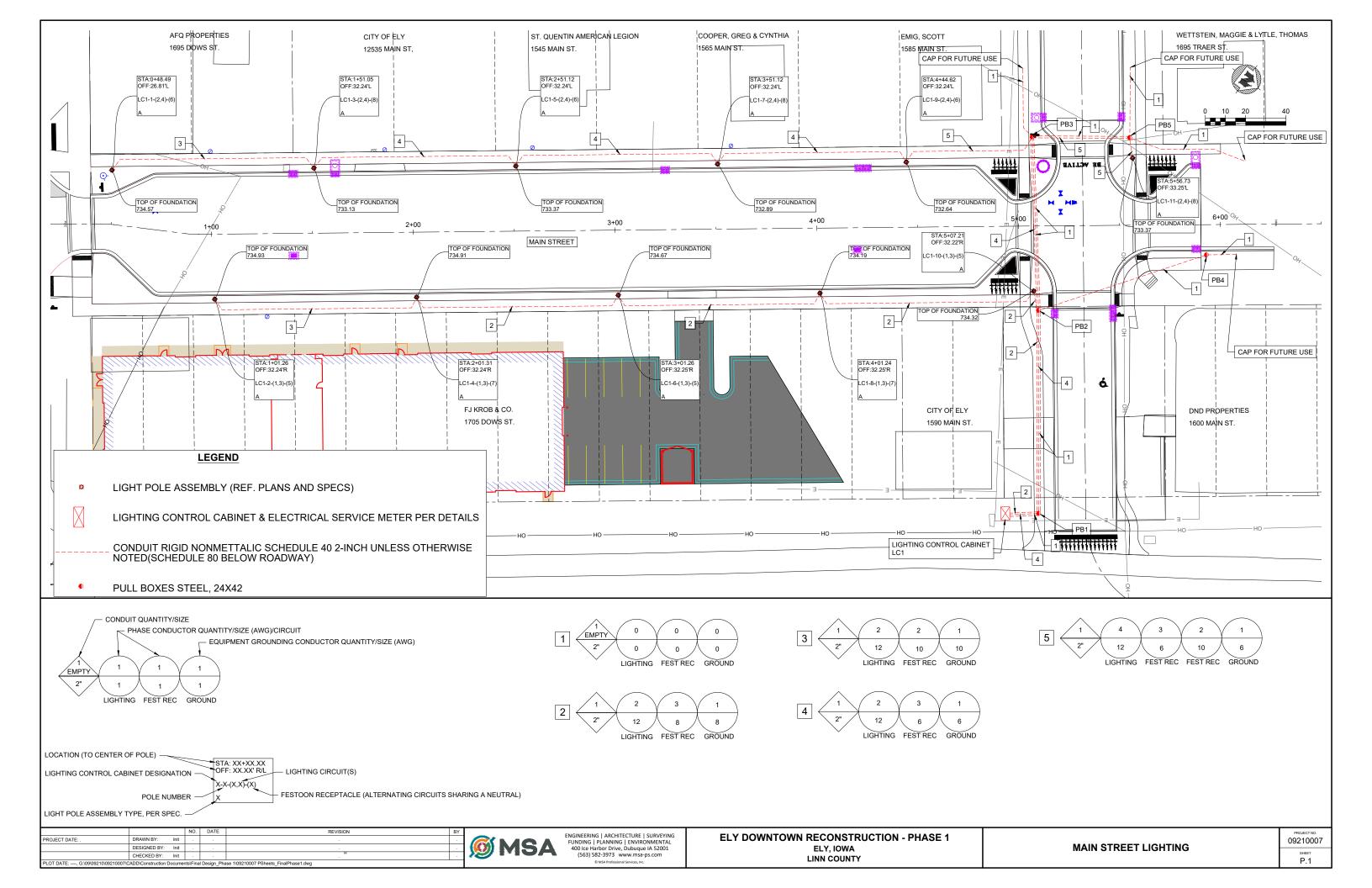


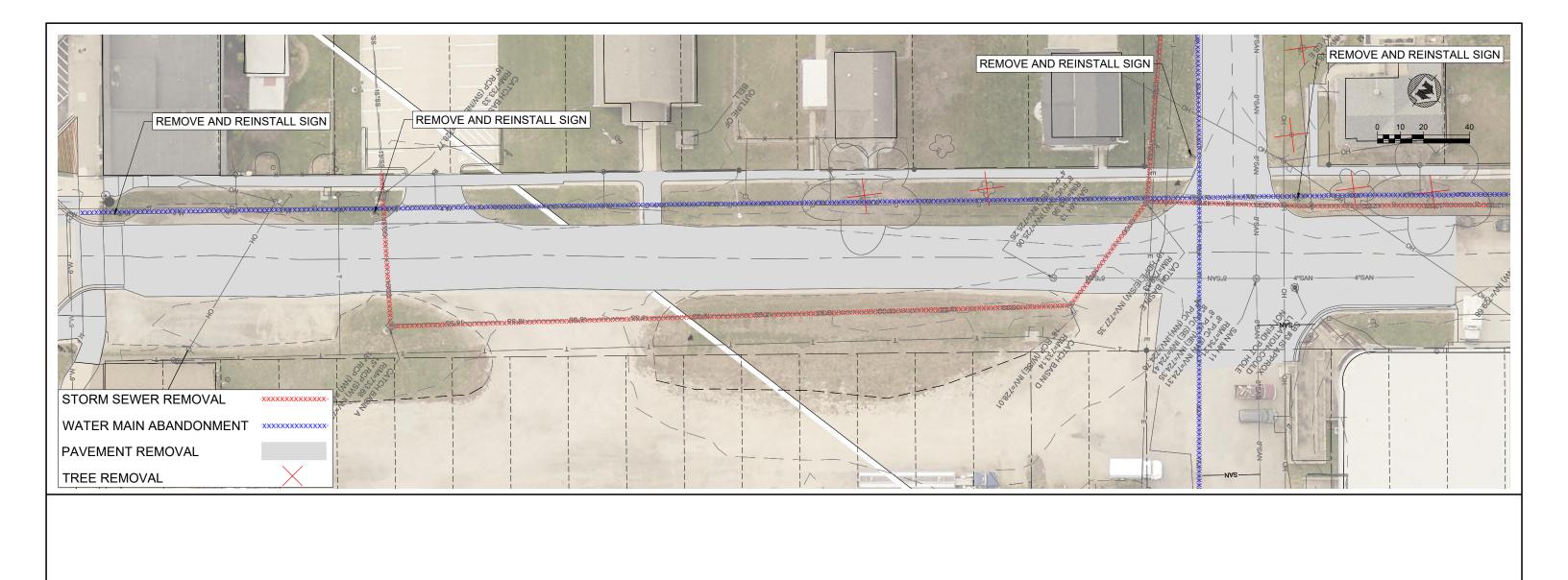










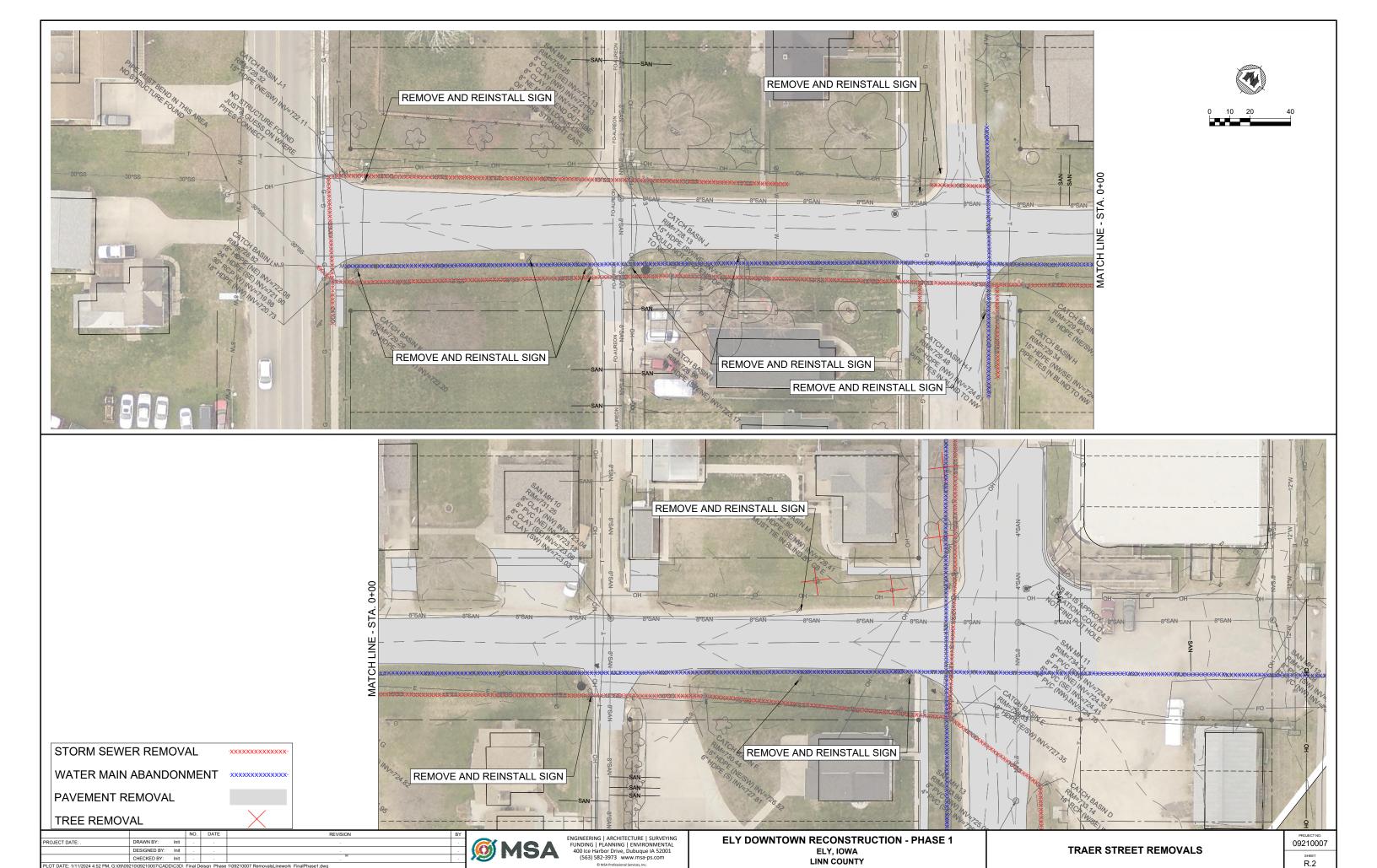


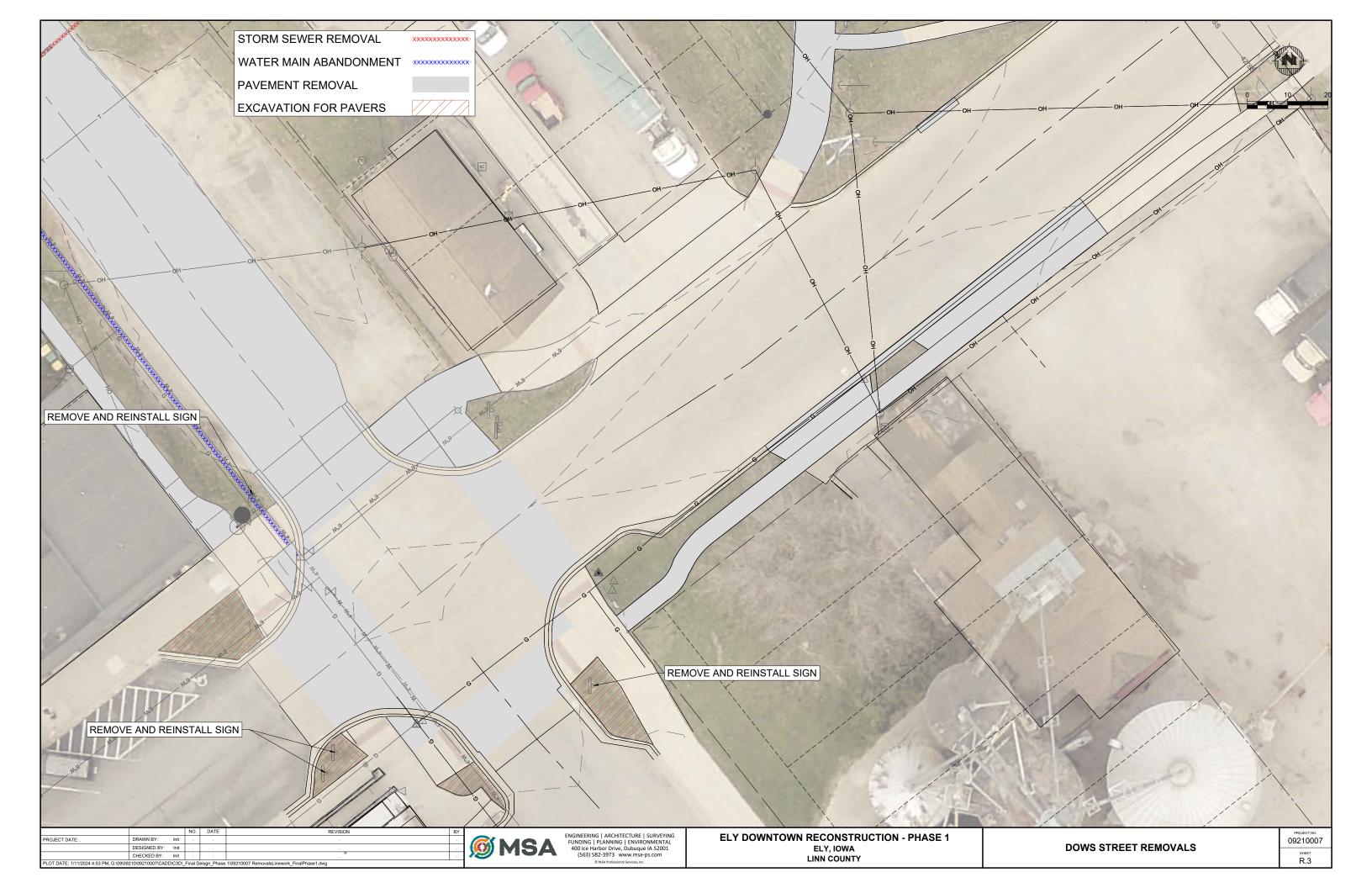
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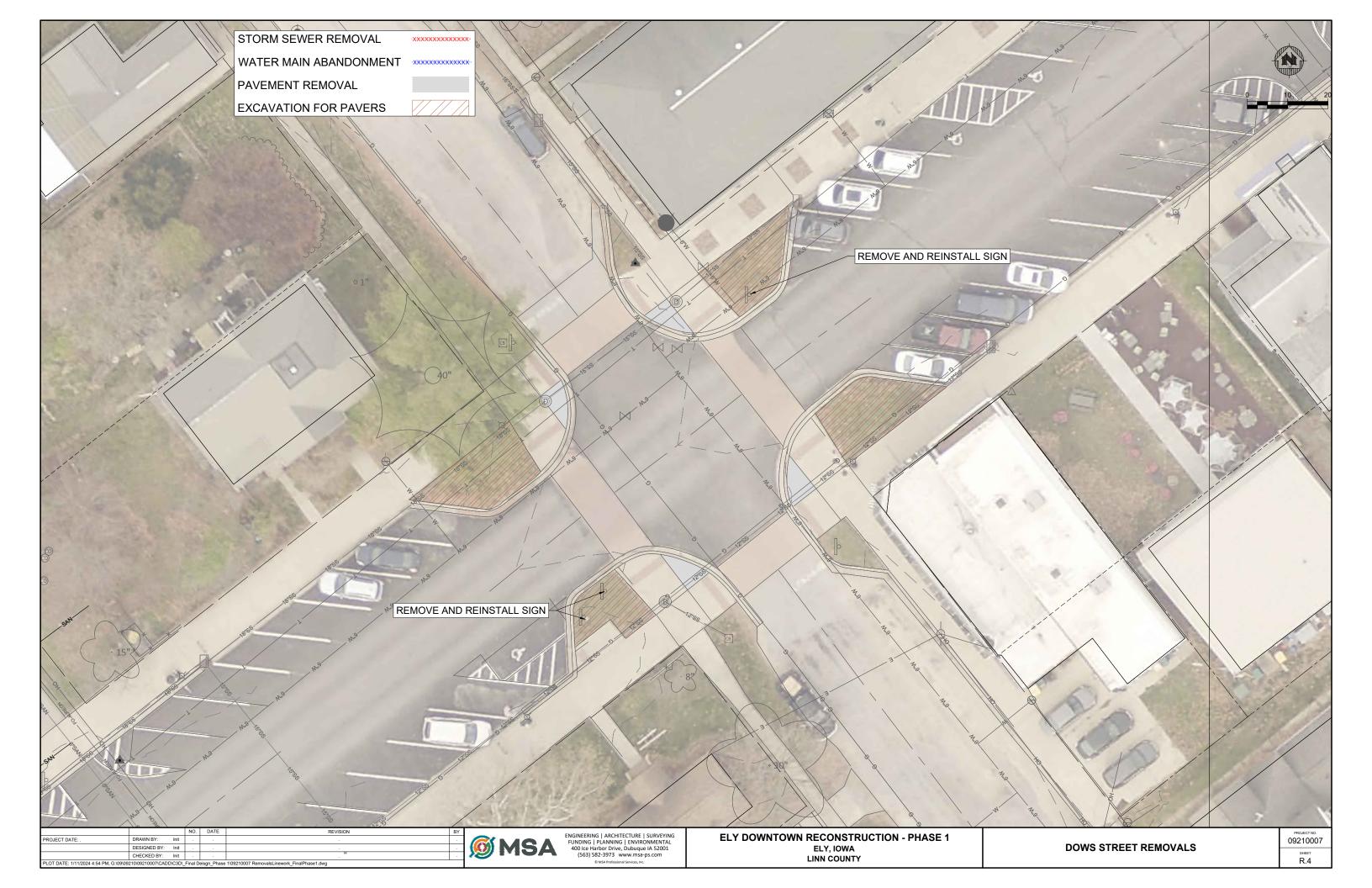


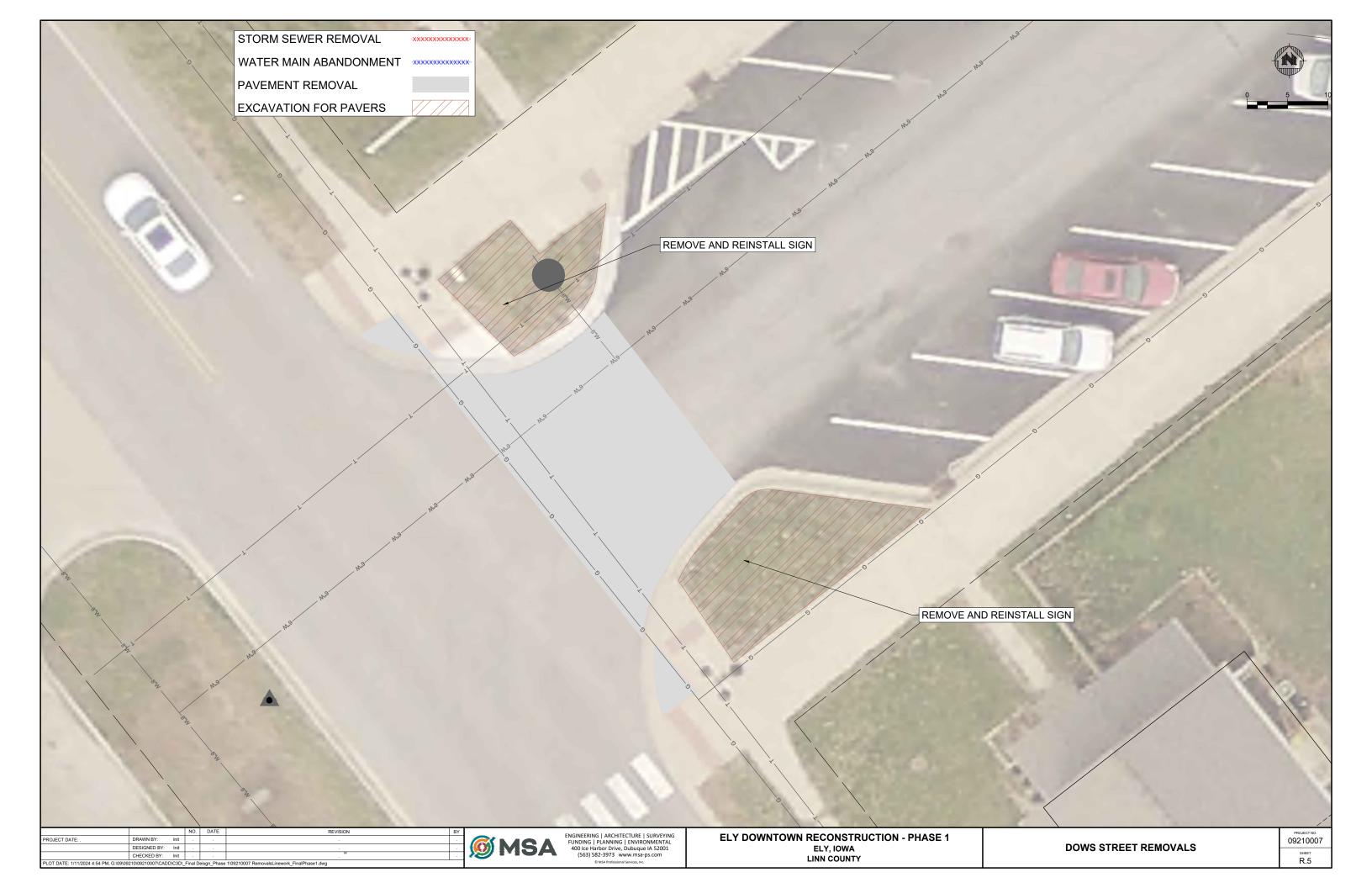
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R.1









CONTROLS

- 1. PRIOR TO BEGINNING GRADING, EXCAVATION, OR CLEARING AND GRUBBING OPERATIONS, SILT FENCE OR FILTER SOCKS AND INLET PROTECTION SHALL BE PLACED ALONG THE PERIMETER OF ALL AREAS TO BE DISTURBED AT ANY LOCATION WHERE RUNOFF CAN MOVE OFFSITE AND INTO INLETS.
- 2. VEGETATION IN AREAS NOT INCLUDED IN THE CONSTRUCTION AREA SHALL BE PRESERVED.
- 3. AS AREAS REACH THEIR FINAL GRADE. THE LOCATION OF EROSION CONTROLS MAY NEED TO BE CHANGED OR ADDITIONAL CONTROLS MAY NEED TO BE PLACED.
- 4. OFF-SITE VEHICLE TRACKING OF SEDIMENTS SHALL BE MINIMIZED. ROADWAYS ADJACENT TO THE PROJECT SITE SHALL BE CLEANED OF SEDIMENT DAILY.
- 5. STABILIZATION PRACTICES, INCLUDING TEMPORARY OR PERMANENT SEEDING AND/OR MULCHING SHALL BE INITIATED ON ALL DISTURBED AREAS IMMEDIATELY WHENEVER CLEARING. GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- 6. CONTRACTOR DISPOSAL OF UNUSED CONSTRUCTION MATERIALS AND CONSTRUCTION MATERIAL WASTES SHALL COMPLY WITH APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER, AND SEPTIC SYSTEM REGULATIONS.
- 7. STOCKPILE AREAS WHICH REMAIN FOR MORE THAN 7 DAYS SHALL BE SEEDED. MULCHED. AND ENCLOSED BY SILT FENCE.
- 8. DUST CONTROL MEASURES SHALL BE EMPLOYED IF DUST IS CREATED AND THERE IS POTENTIAL FOR AIR AND/OR WATER POLLUTION FROM DUST TRANSPORTED BY WINDS. DUST CONTROL MEASURES SUCH AS SPRINKLING/IRRIGATION, MULCHING, OR OTHER APPROPRIATE MEASURES SHALL BE EMPLOYED AS NECESSARY.
- 9. THE CONTRACTOR SHALL PLACE ANY OTHER CONTROLS CONSISTENT WITH CURRENT BMPs AS DEEMED NECESSARY TO CONTROL RUNOFF FROM EXPOSED SITES.
- 10. CONTRACTOR MAY LOCATE A PORTABLE REST ROOM FACILITY ONSITE IN A LOCATION WHERE CONTACT WITH STORM WATER DISCHARGE IS MINIMIZED. WASTES SHALL BE COLLECTED AND DISPOSED OF IN COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

INSPECTIONS

- 1. QUALIFIED PERSONNEL (PROVIDED BY THE DISCHARGER) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN STABILIZED WITH PERENNIAL VEGETATIVE COVER OF SUFFICIENT DENSITY TO PRECLUDE EROSION AT LEAST ONCE EVERY SEVEN CALENDER DAYS.
- 2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS SHALL BE INSPECTED FOR EVIDENCE OF POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPEATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR OFFSITE SEDIMENT TRACKING. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.
- 3. THE CONTRACTOR SHALL IMMEDIATELY BEGIN CORRECTIVE ACTION ON ALL DEFICIENCIES FOUND.
- 4. THIS INSPECTION MAY REQUIRE REVISIONS TO THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN. THE CONTRACTOR SHALL IMPLEMENT ALL REVISIONS TO THE PLAN DEEMED NECESSARY AND COMPLETE SUCH CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS OF THE INSPECTION.
- 5. CONTRACTOR IS RESPONSIBLE TO MAINTAIN WEEKLY INSPECTION REPORTS FOR THE PROJECT. WEEKLY REPORTS NEED TO BE SIGNED BY A CERTIFIED EROSION CONTROL TECHNICIAN. THE WRITTEN REPORT SHALL SUMMARIZE THE SCOPE OF THE INSPECTION, THE NAMES AND QUALIFICATIONS OF THE INSPECTORS, THE DATE, AND THE OBSERVATIONS MADE AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS PART OF THE SWPPP. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G OF THE PERMIT.

CONSTRUCTION SEQUENCE

- 1. INSTALL TRACKING PAD AND PLACING EROSION CONTROL
- 2. GRADE SITE. AS SITE BROUGHT TO FINAL GRADE AS SLOPES SHALL BE STABILIZED WITH APPROPRIATE CONTROL MEASURES.
- 3. PROTECT STORM SEWER ACCORDINGLY.
- 4. SEED AND MULCH SITE. ONCE STABILIZED WITH A FULL CATCH OF GRASS, REMOVE PERIMETER SILT FENCE.
- 5. REMOVE REMAINING CONSTRUCTION DEBRIS AND TEMPORARY EROSION CONTROL MEASURES FROM SITE.

KEEPING PLANS CURRENT

THIS SWPPP WAS PREPARED PRIOR TO THE COMMENCEMENT OF SOIL DISTURBING ACTIVITIES. THE PERMITTEE SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS SIGNIFICANT EFFECT ON THE POTENTIAL DISCHARGE OF POLLUTANTS TO THE WATERS OF THE UNITED STATES AND WHICH HAS NOT BEEN ADDRESSED IN THE PLAN OR IF THE SWPPP PROVES TO BE INEFFECTIVE. SEE PART VI.C OF THE PERMIT FOR COMPLETE REQUIREMENTS REGARDING UPDATING OF THE

ALL CONTRACTORS/SUBCONTRACTORS SHALL CONDUCT THEIR OPERATIONS IN A MANNER THAT MINIMIZES EROSION AND PREVENTS SEDIMENT FROM LEAVING THE PROJECT SITE. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AND INSTALLATION OF THE EROSION CONTROL PLAN (ECP) FOR THEIR ENTIRE CONTRACT. THIS RESPONSIBILITY SHALL BE FURTHER SHARED WITH SUBCONTRACTORS WHOSE WORK IS A SOURCE OF POTENTIAL POLLUTION AS DEFINED IN THIS ECP.

NON-STORM WATER DISCHARGES

NON-STORM DISCHARGES MAY OCCUR FROM SUBSURFACE DRAINS, WATER LINE FLUSHING, GROUNDWATER DE-WATERING, VEHICLE WASHING, AND SPRINGS. DISCHARGES SHALL BE DIRECTED TO A STABILIZED AREA OR TO APPRORIATE CONTROL MEASURES PRIOR TO DISCHARGING OFFSITE.

SITE DESCRIPTION

THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH GRADING AND UTILITY INSTALLATION FOR THE ELY DOWNTOWN PHASE 1 PROJECT LOCATED IN PUTNAM TOWNSHIP, NE 1/4. SECTION 31. T82N. R6W ELY. LINN COUNTY. IOWA.

THE EROSION CONTROL PLAN COVERS APPROXIMATELY 1.00 ACRES.

THE EROSION CONTROL PLAN IS LOCATED PRIMARILY IN SOILS AND SUB-SOILS CONSISTING OF WAUKEE LOAMS AND ELY SILTY CLAY LOAMS. THE ESTIMATED RUNOFF COEFFICIENT (C) FOR THE SITE AFTER COMPLETION WILL BE 0.46.

REFER TO THIS SHEET, SHEET RR.1-RR.2, AND SUDAS STANDARD ROAD PLANS FOR CONTROL DETAILS AND SITE MAP INDICATING PATTERNS, TYPICAL SLOPES, AREAS OF DISTURBANCE, MAJOR STRUCTURAL, AND NONSTRUCTURAL CONTROLS, ETC.

RUNOFF FROM THIS SITE WILL BE DISCHARGED TO HOOSIER CREEK TO CORALVILLE LAKE.

NOTICE OF DISCONTINUATION

WITHIN 30 DAYS AFTER FINAL STABILIZATION. THE OPERATOR OR OWNER OF THE FACILITY SHALL SUBMIT A NOTICE OF DISCONTINUATION TO THE IOWA DEPARTMENT OF NATURAL RESOURCES.

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE AS PART OF THIS CERTIFICATION FURTHER, BY MY SIGNATURE, I UNDERSTAND THAT I AM BECOMING A CO-PERMITEE, ALONG WITH THE OWNER(S) AND OTHER CONTRACTORS AND SUBCONTRACTORS
SIGNING SUCH CERTIFICATIONS. TO THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2 FOR "STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY FOR CONSTRUCTION ACTIVITIES" AT THE IDENTIFIED SITE. AS A CO-PERMITEE, I UNDERSTAND THAT I, AND MY COMPANY ARE LEGALLY REQUIRED UNDER THE CLEAN WATER ACT AND THE CODE OF IOWA. TO ENSURE COMPLIANCE WITI THE TERMS AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN DEVELOPED UNDER THIS NPDES PERMIT AND THE TERMS OF THIS NPDES PERMIT.

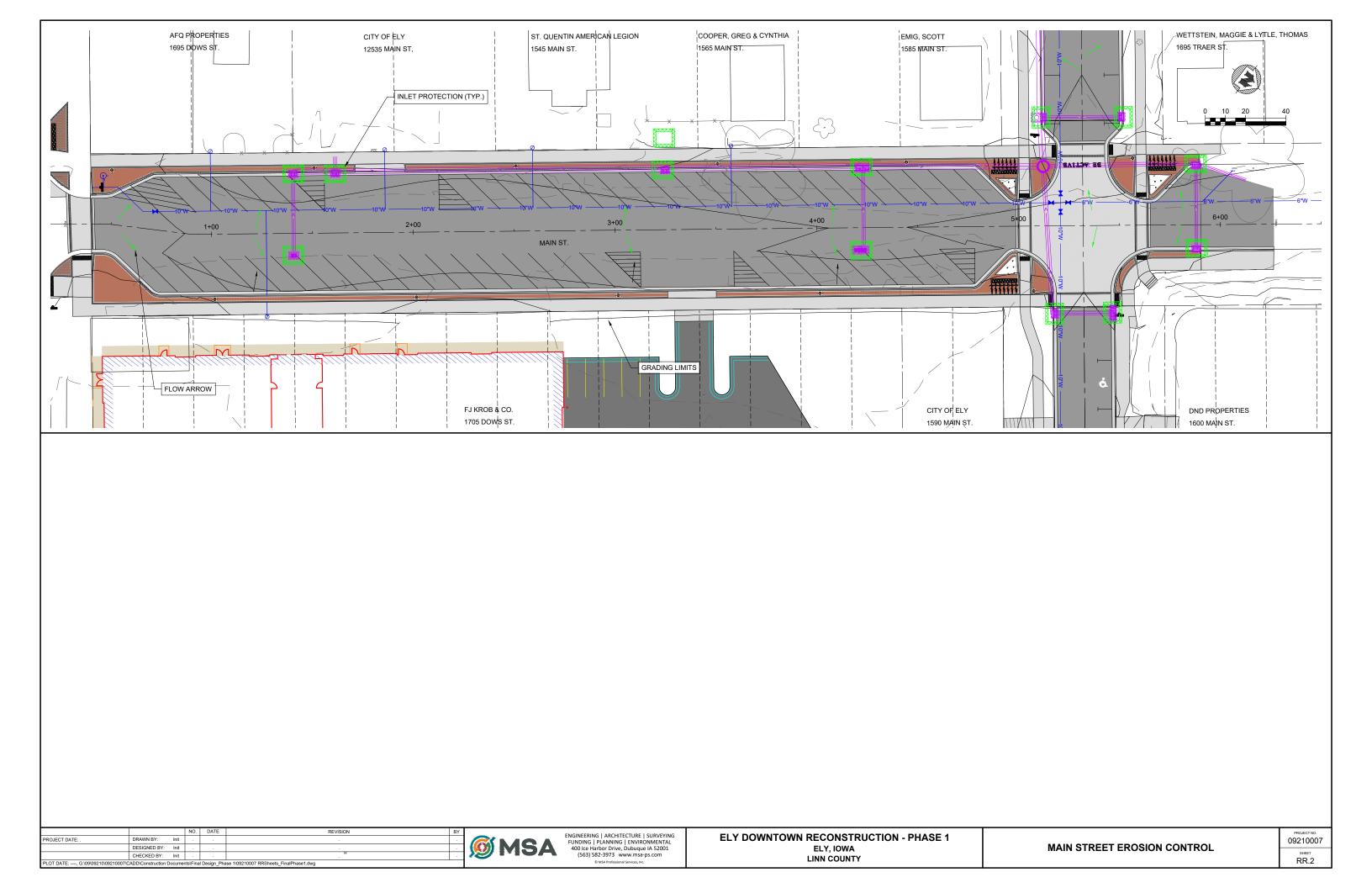
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE AND ACCURATE.

THIS CERTIFICATION MUST INCLUDE THE NAME AND TITLE OF THE PERSON PROVIDING THE SIGNATURE; THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE CONTRACTING FIRM; THE ADDRESS (OR OTHER IDENTIFYING DESCRIPTION OF THE SITE; AND THE DATE THE CERTIFICATION IS MADE.

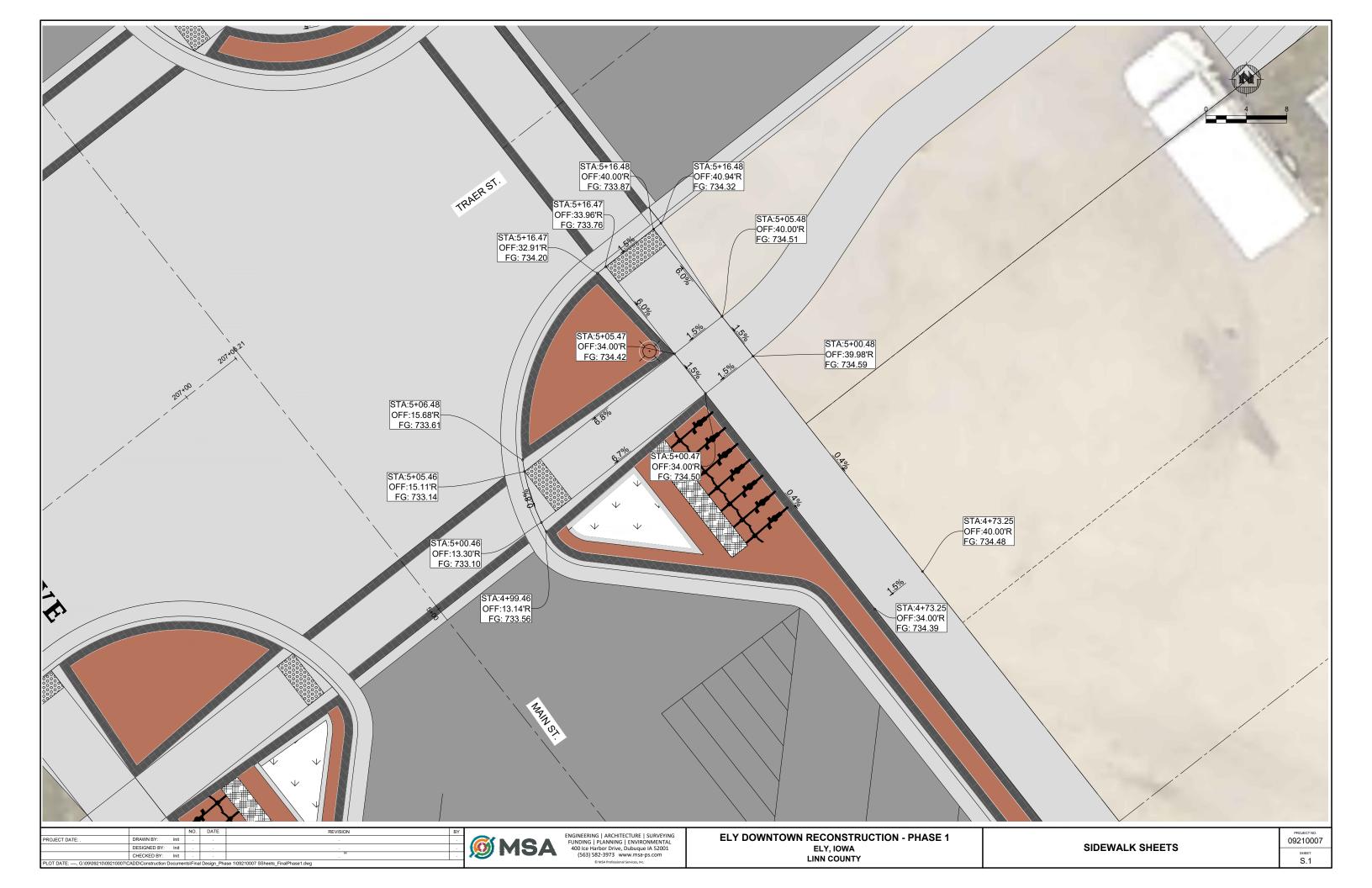
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SUBCONTRACTORS	CERTIFICATION	
COMPANY	SIGNATURE	DATE

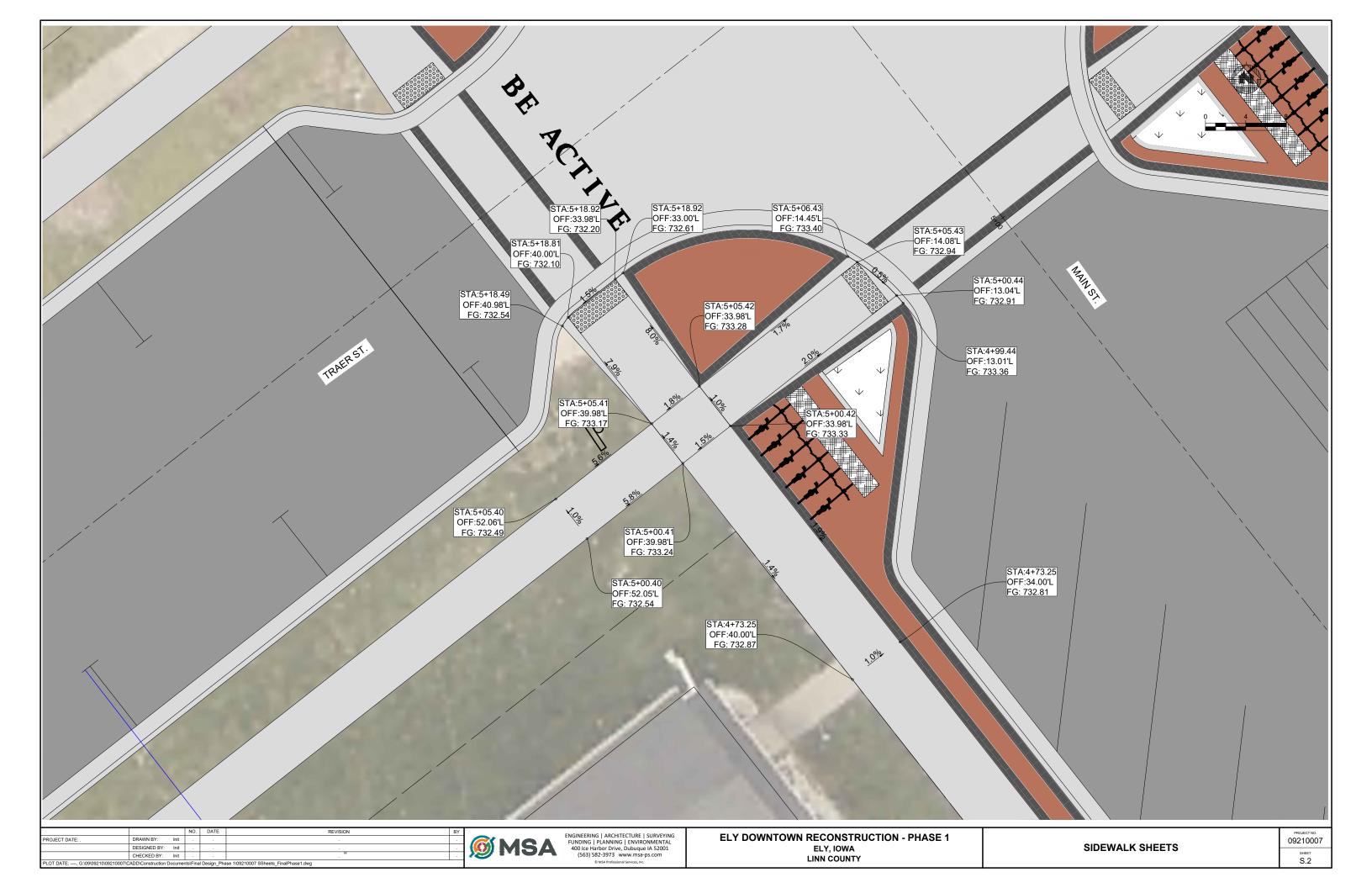


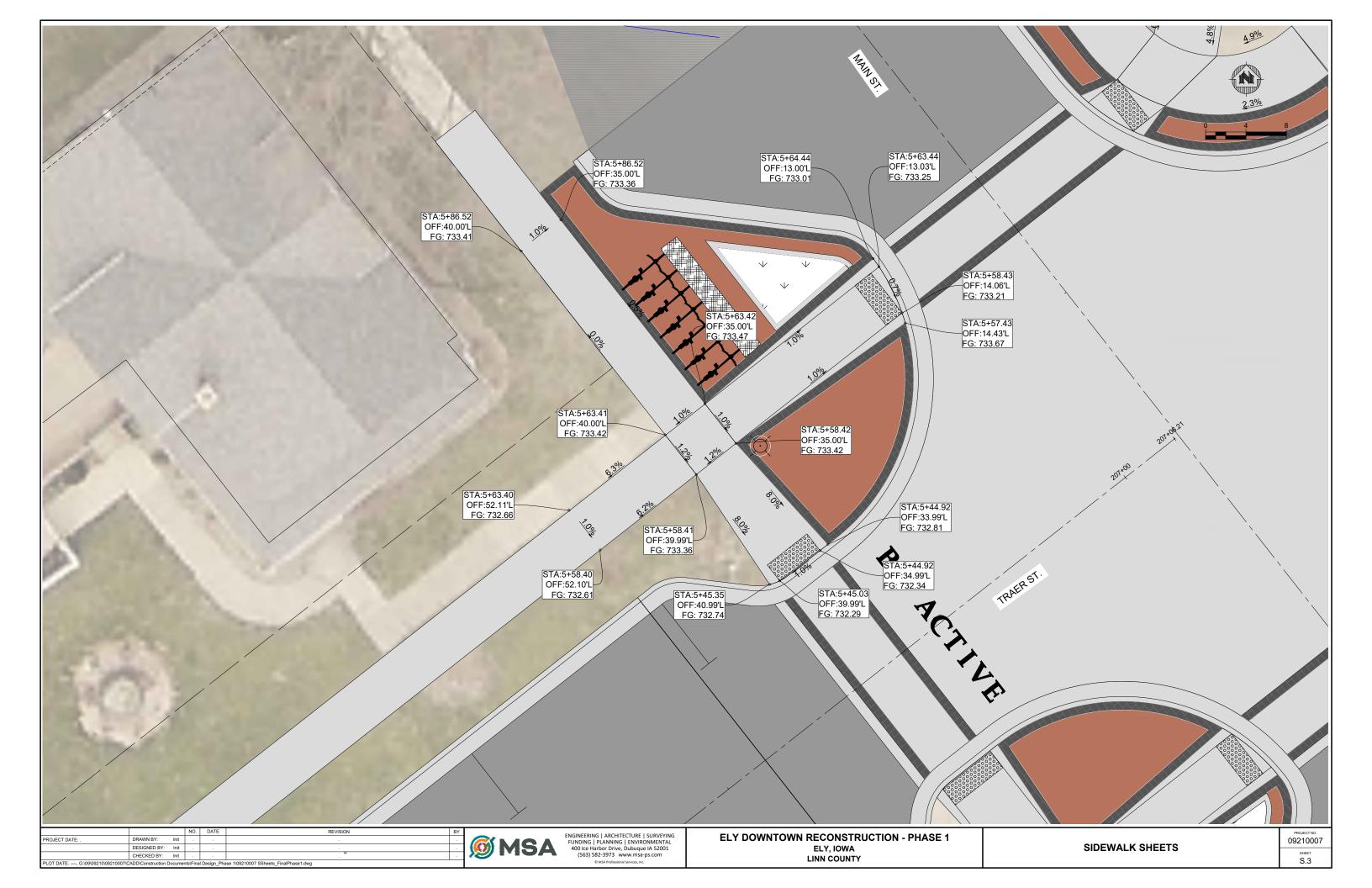


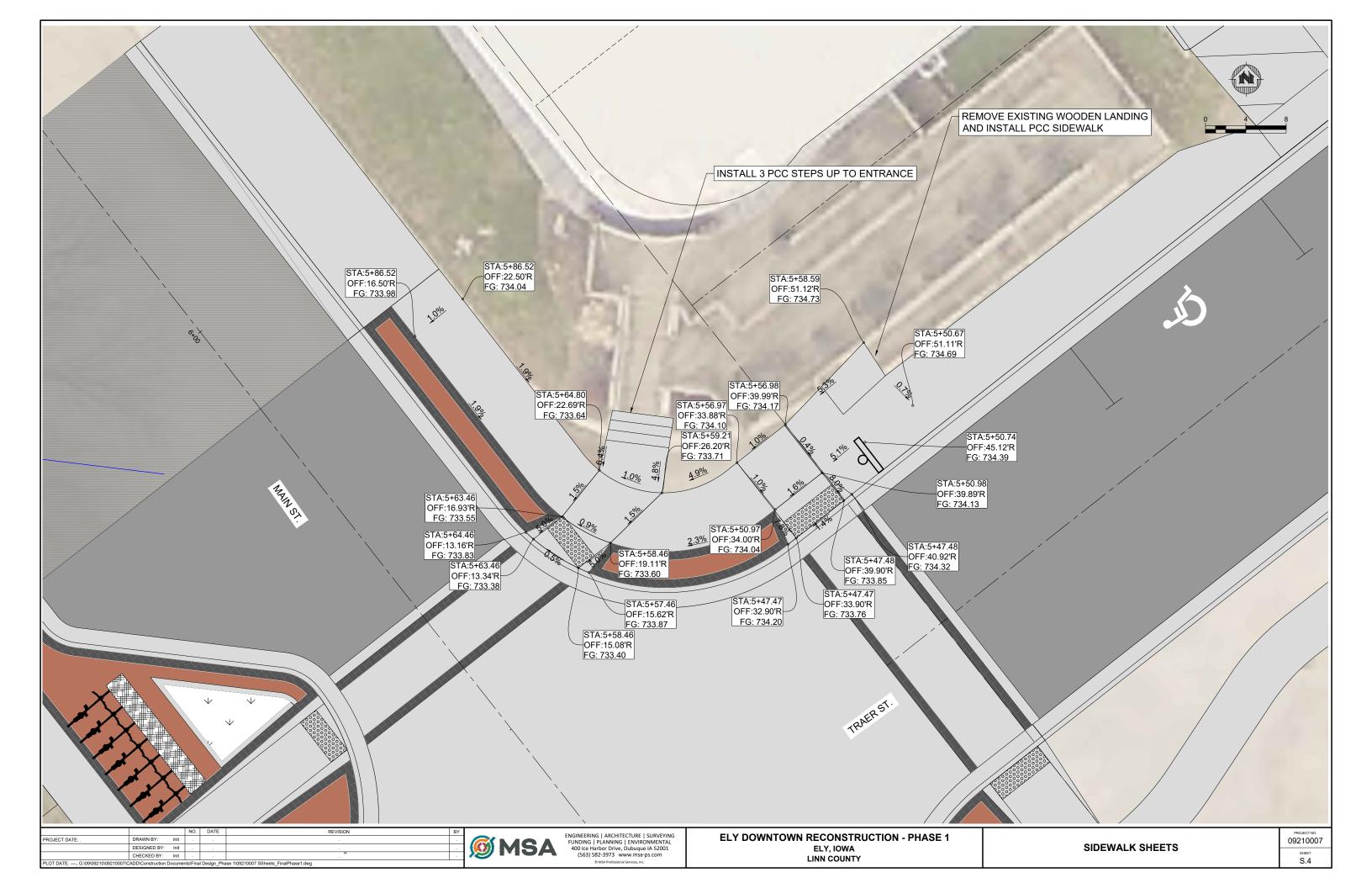


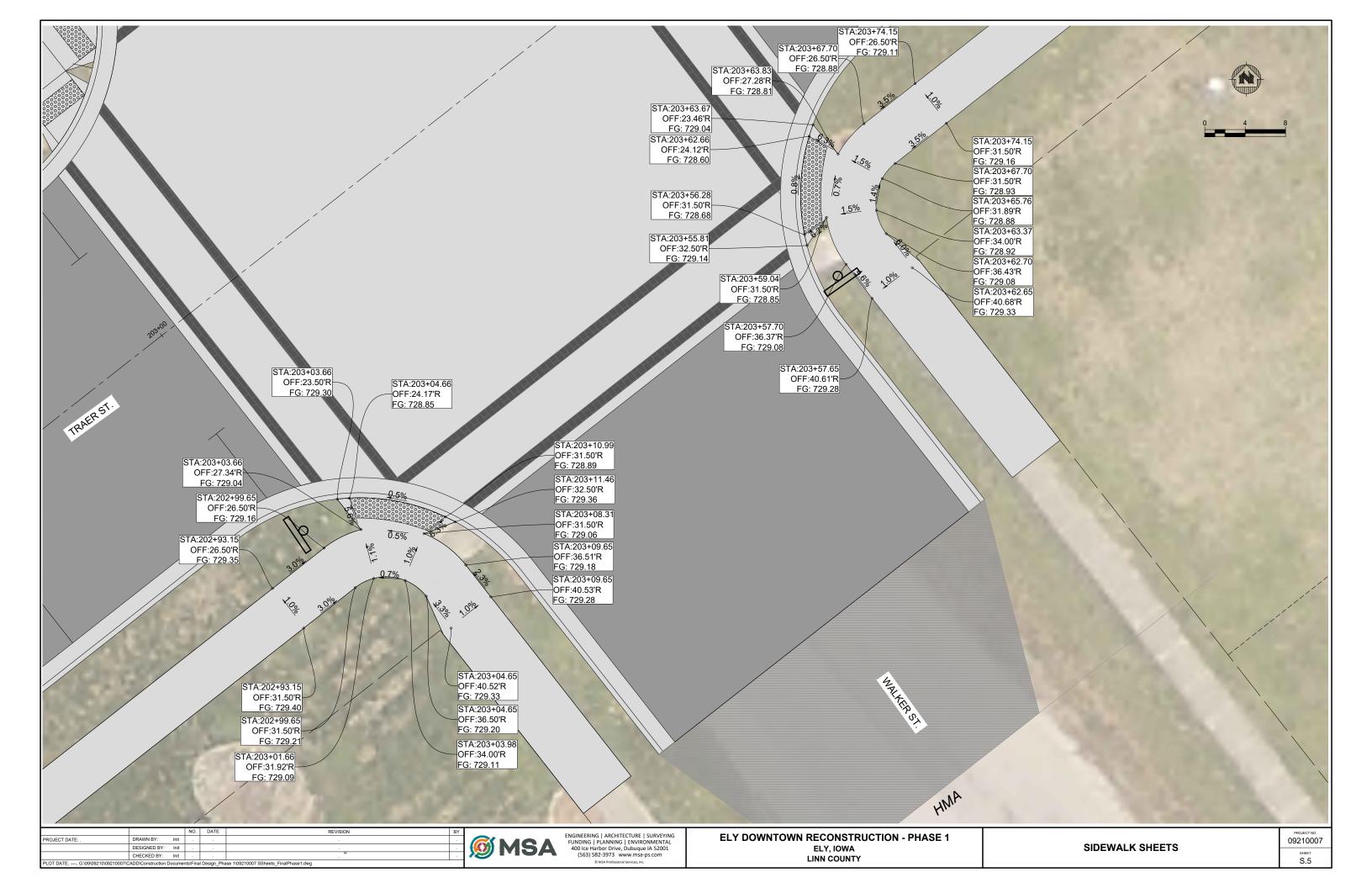


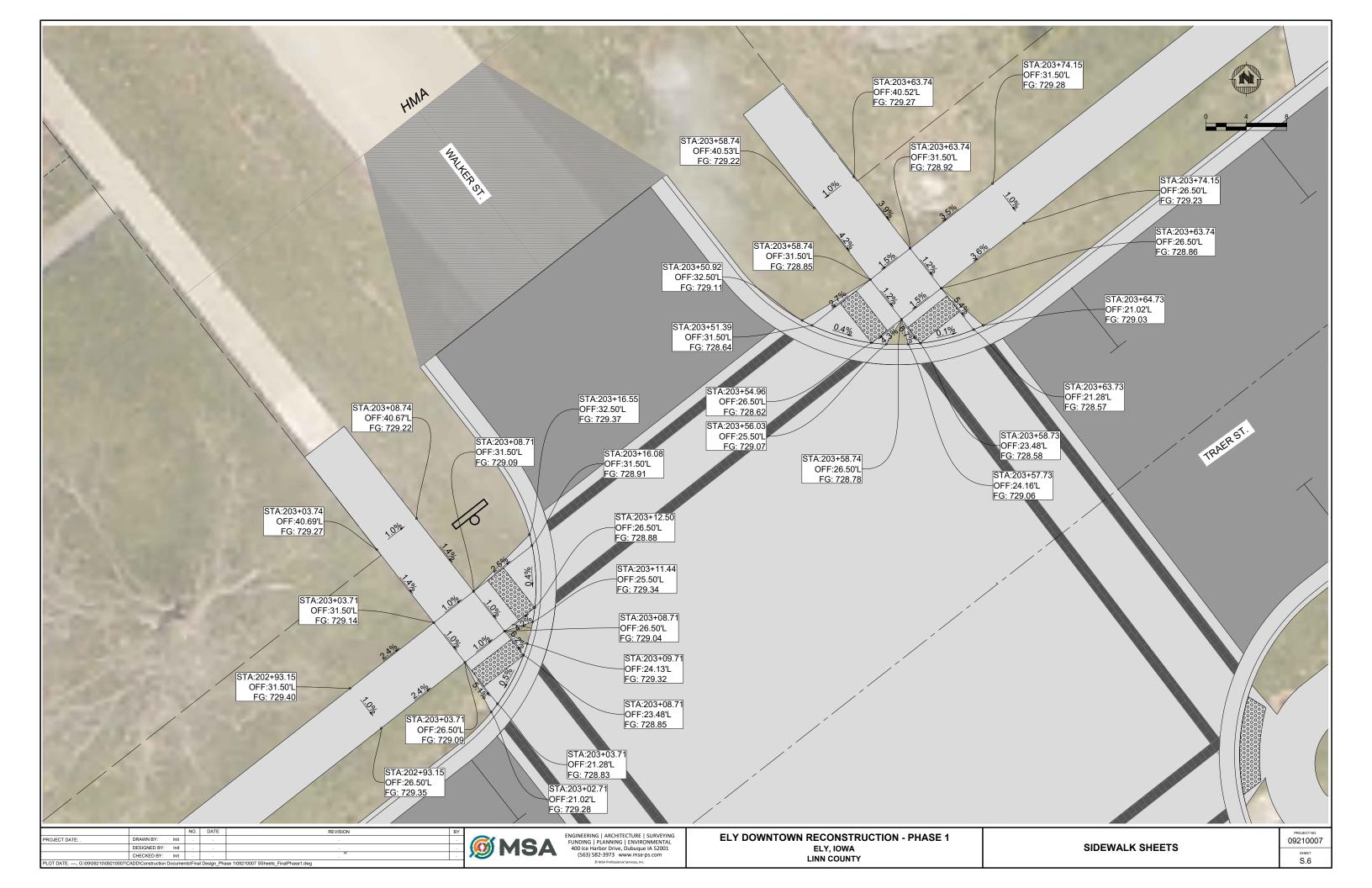


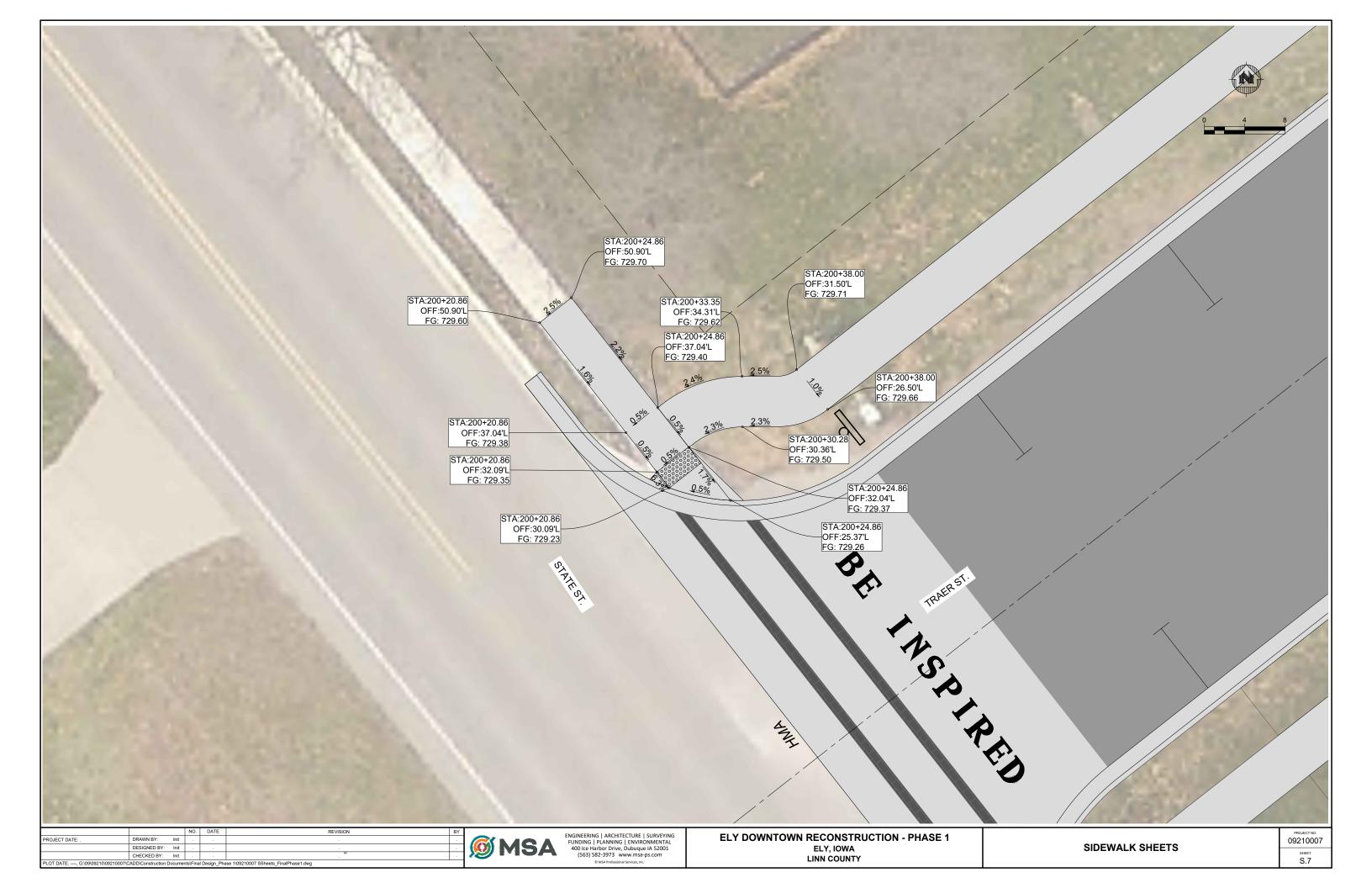


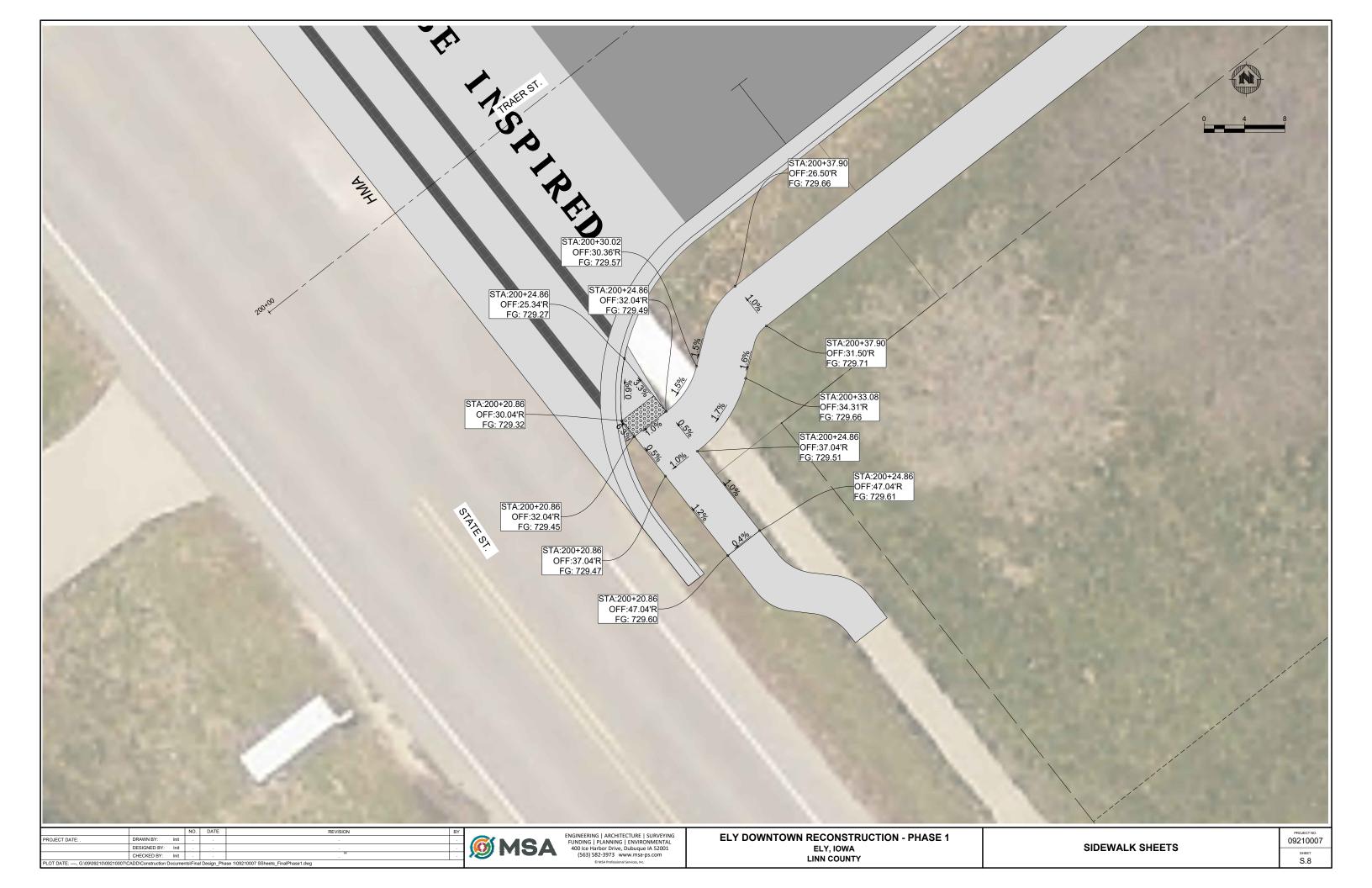


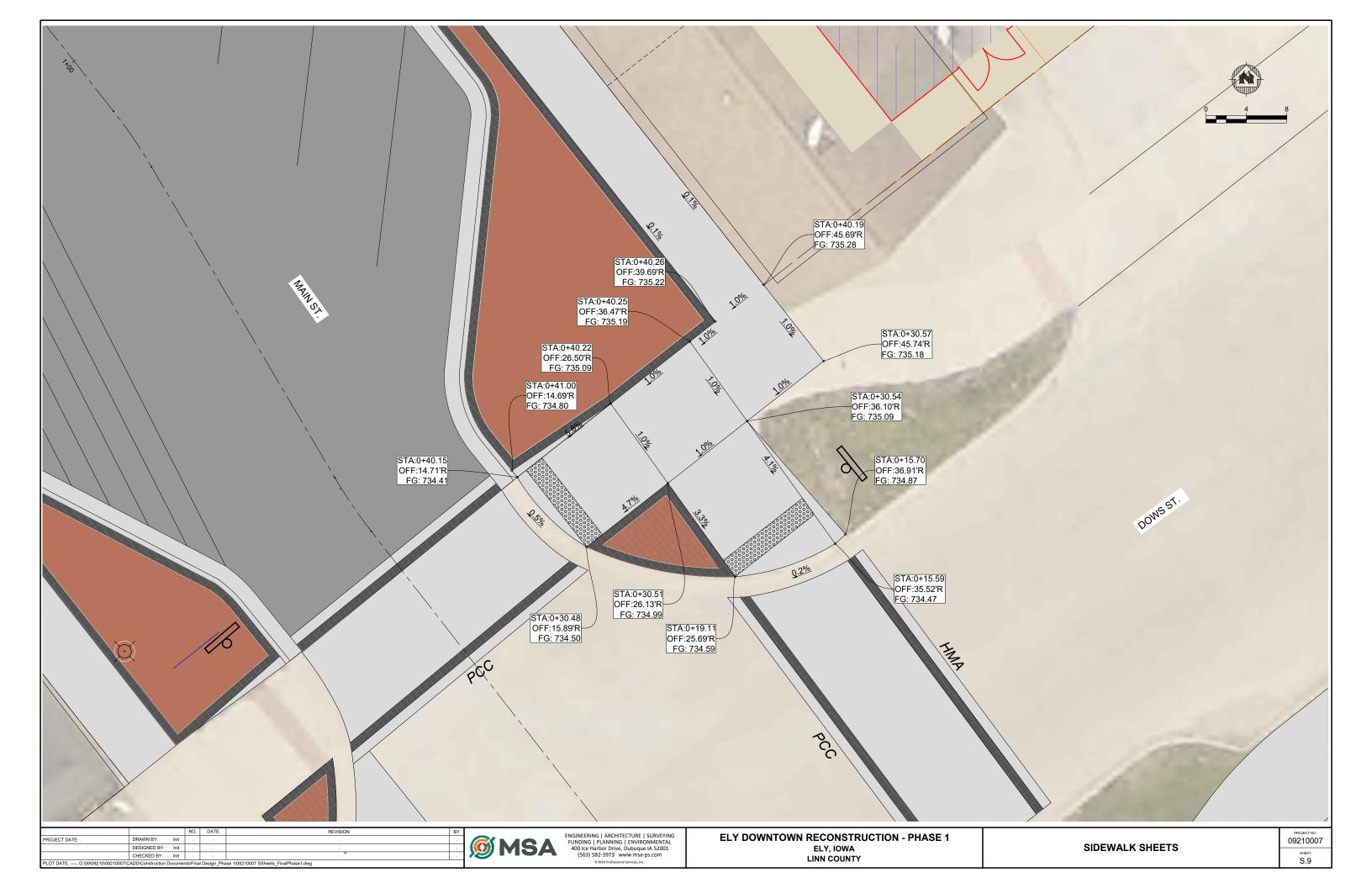


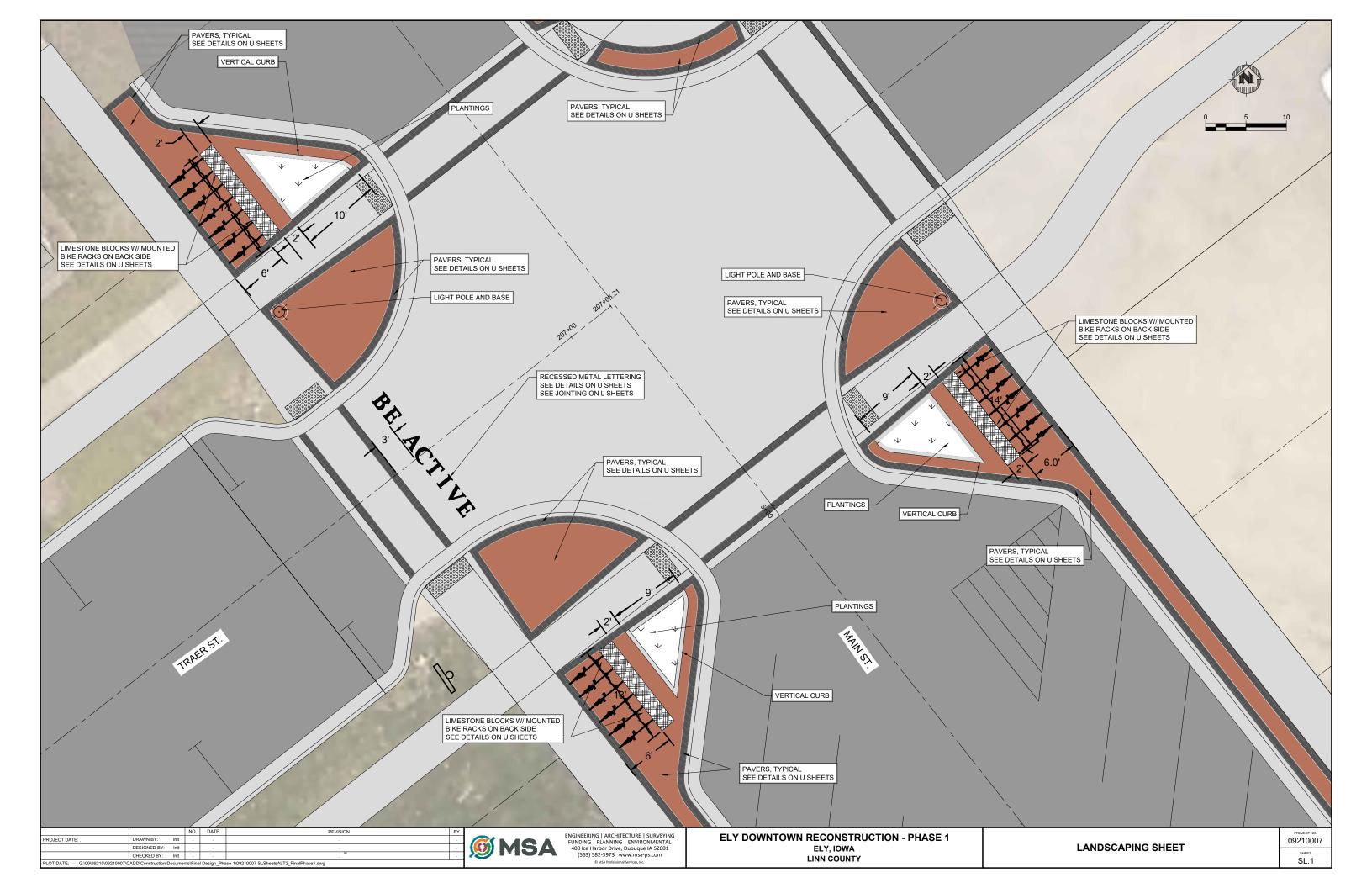


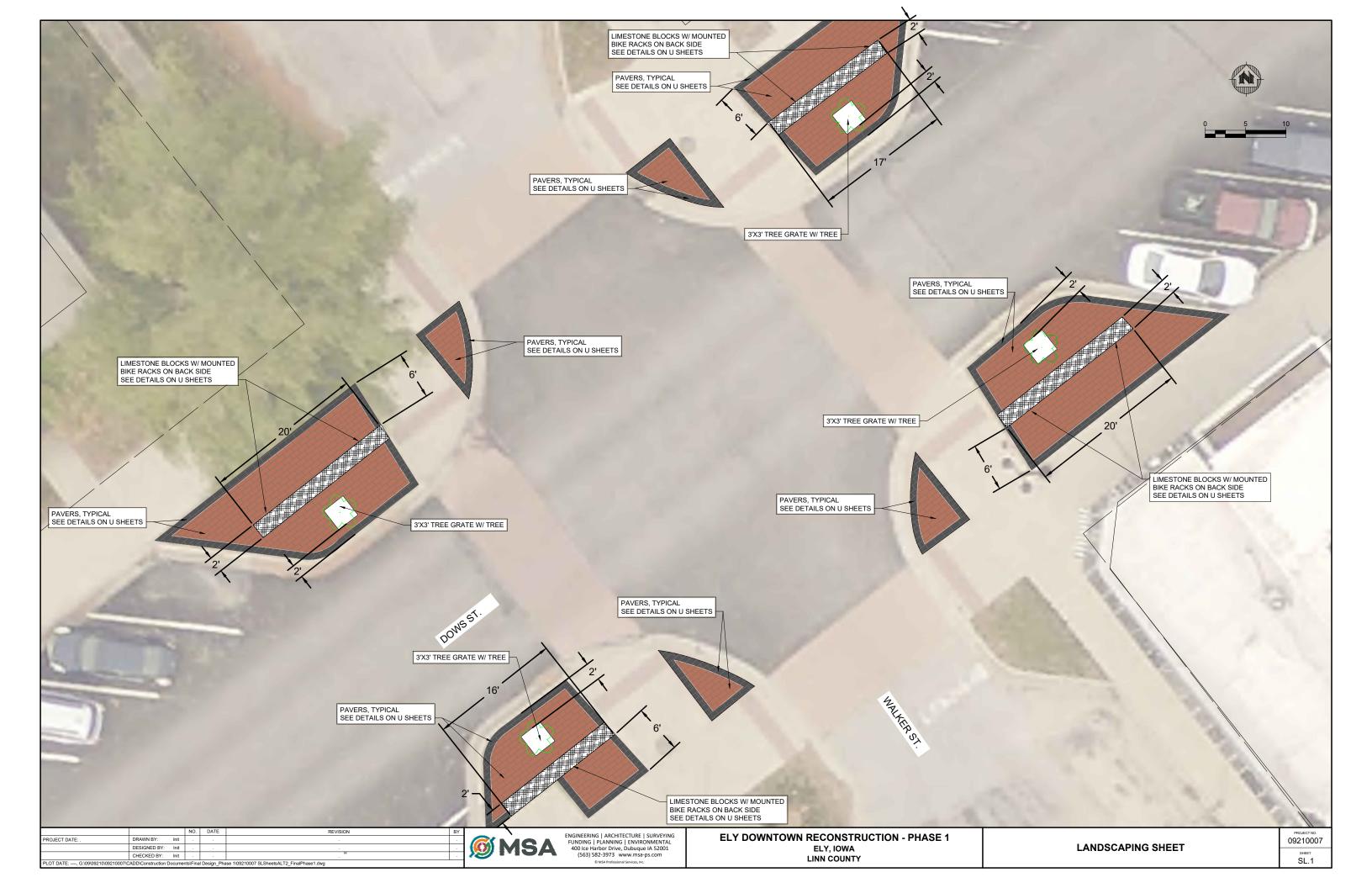


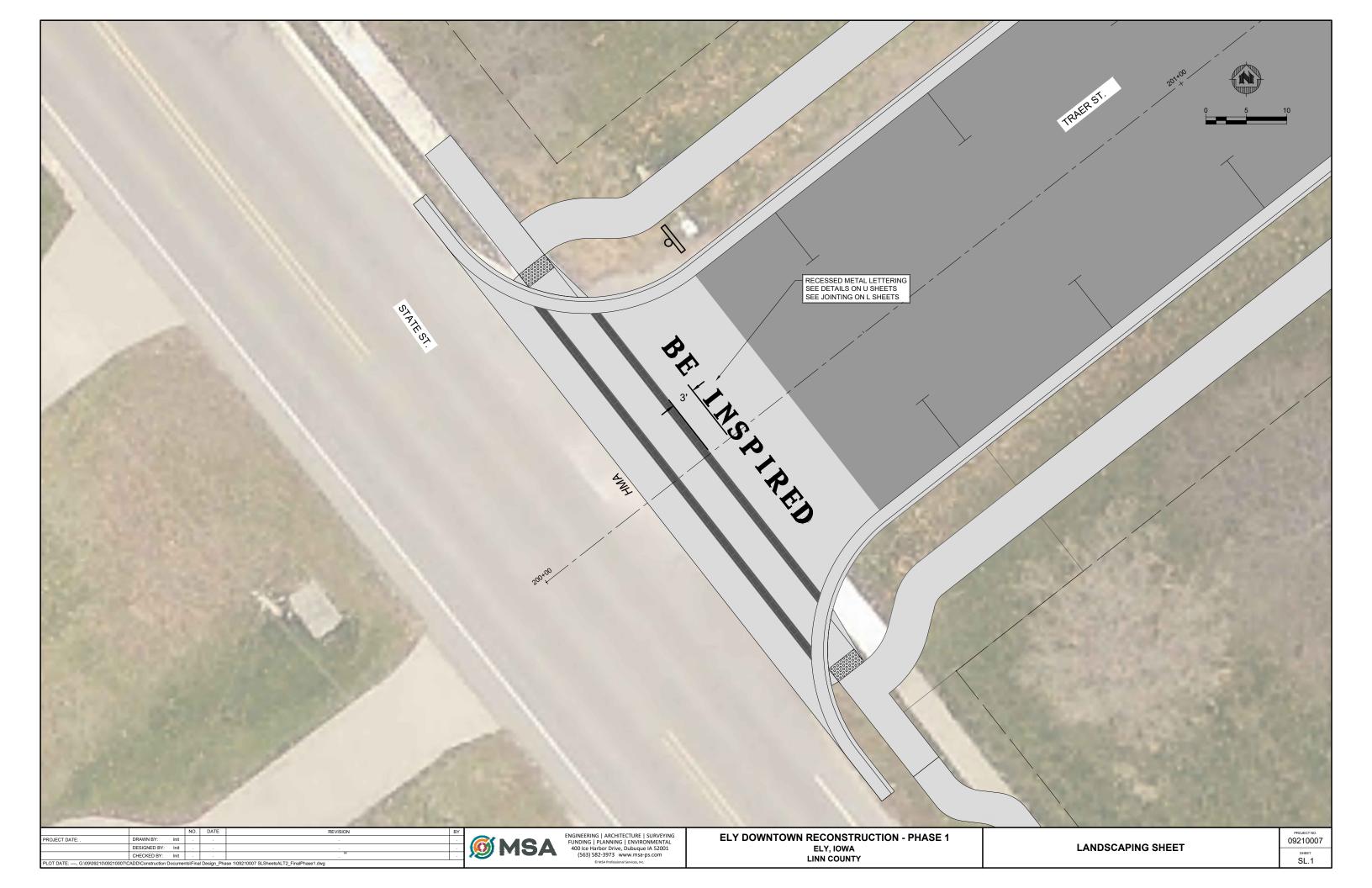


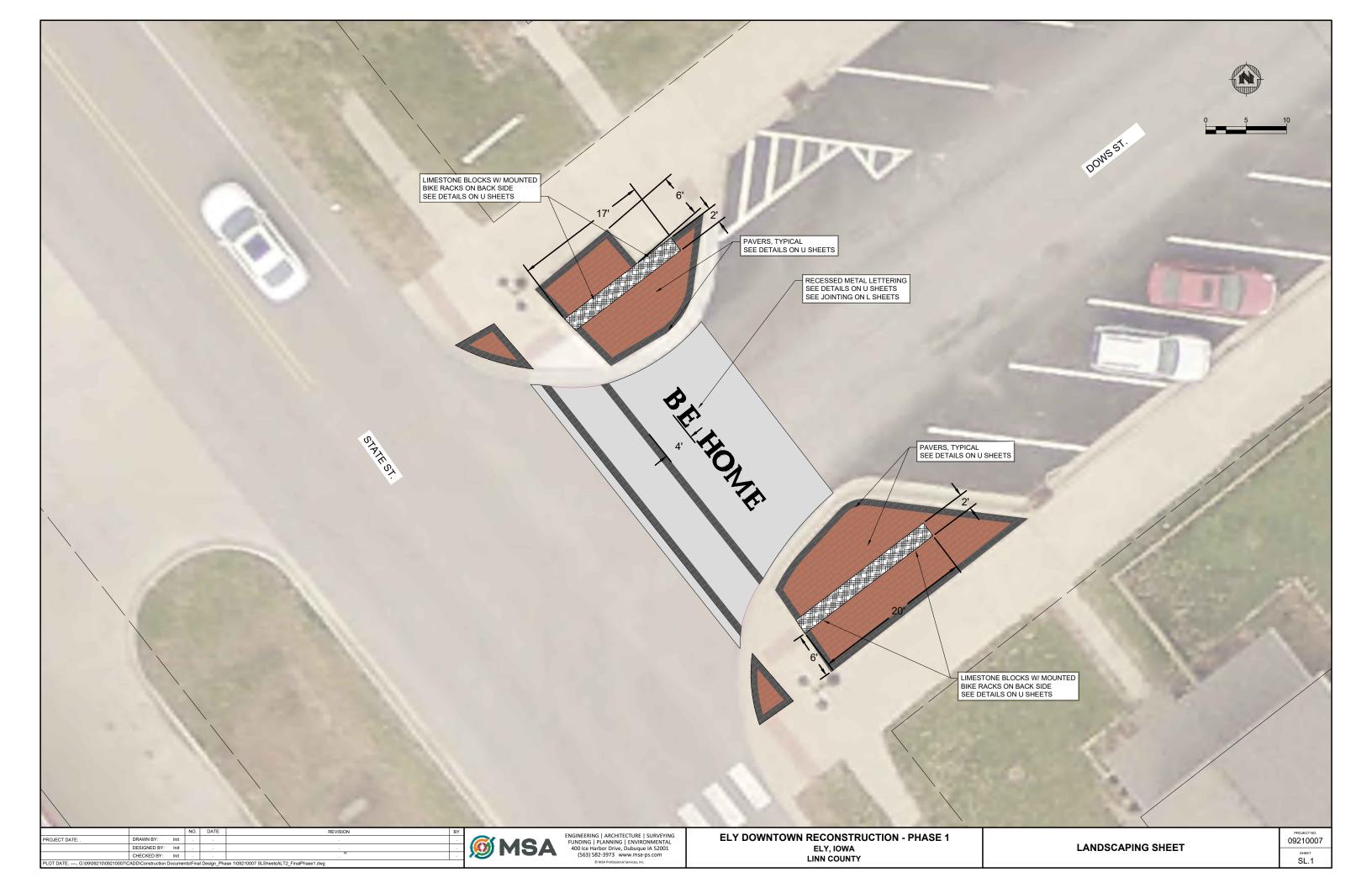


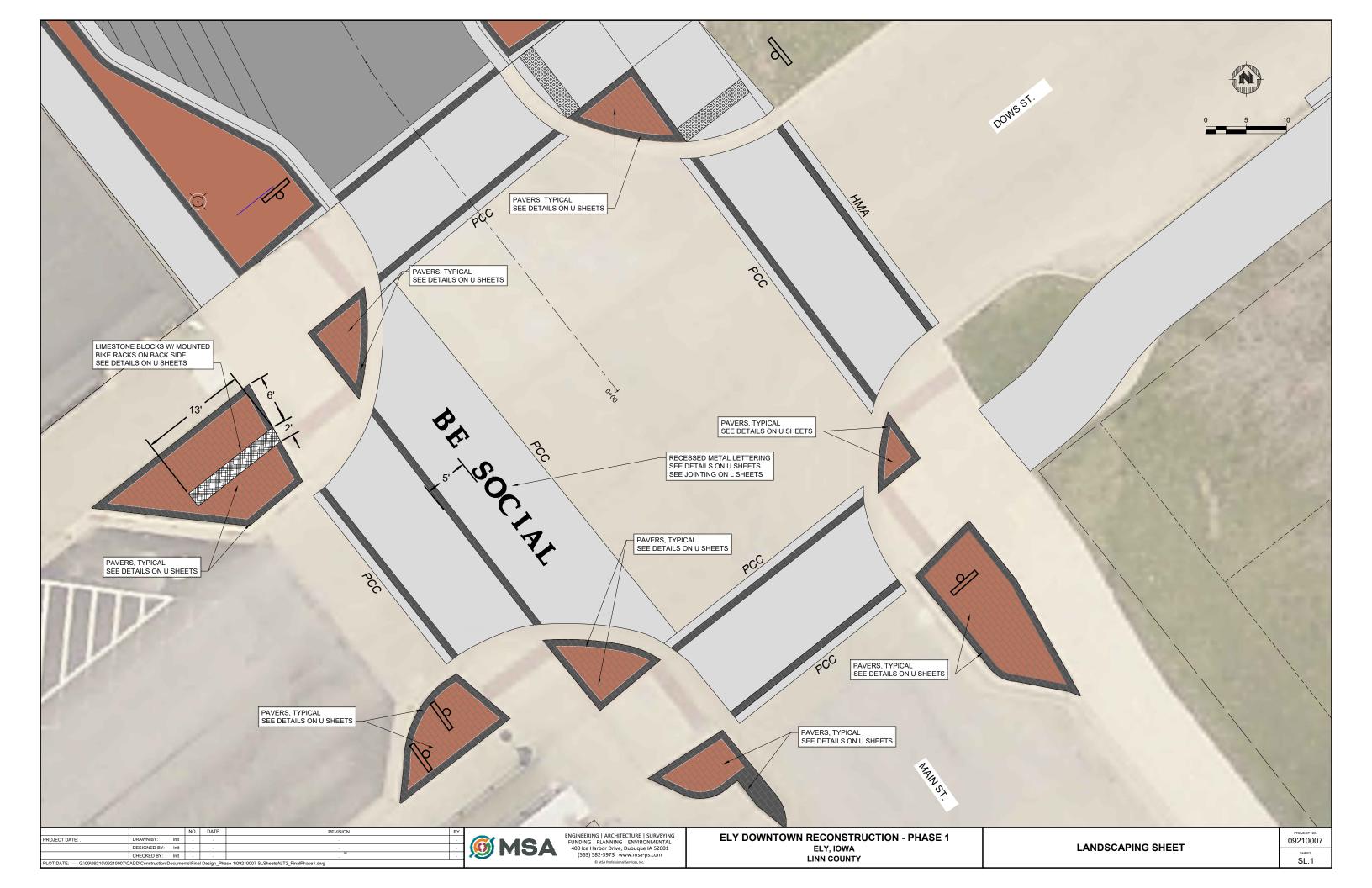


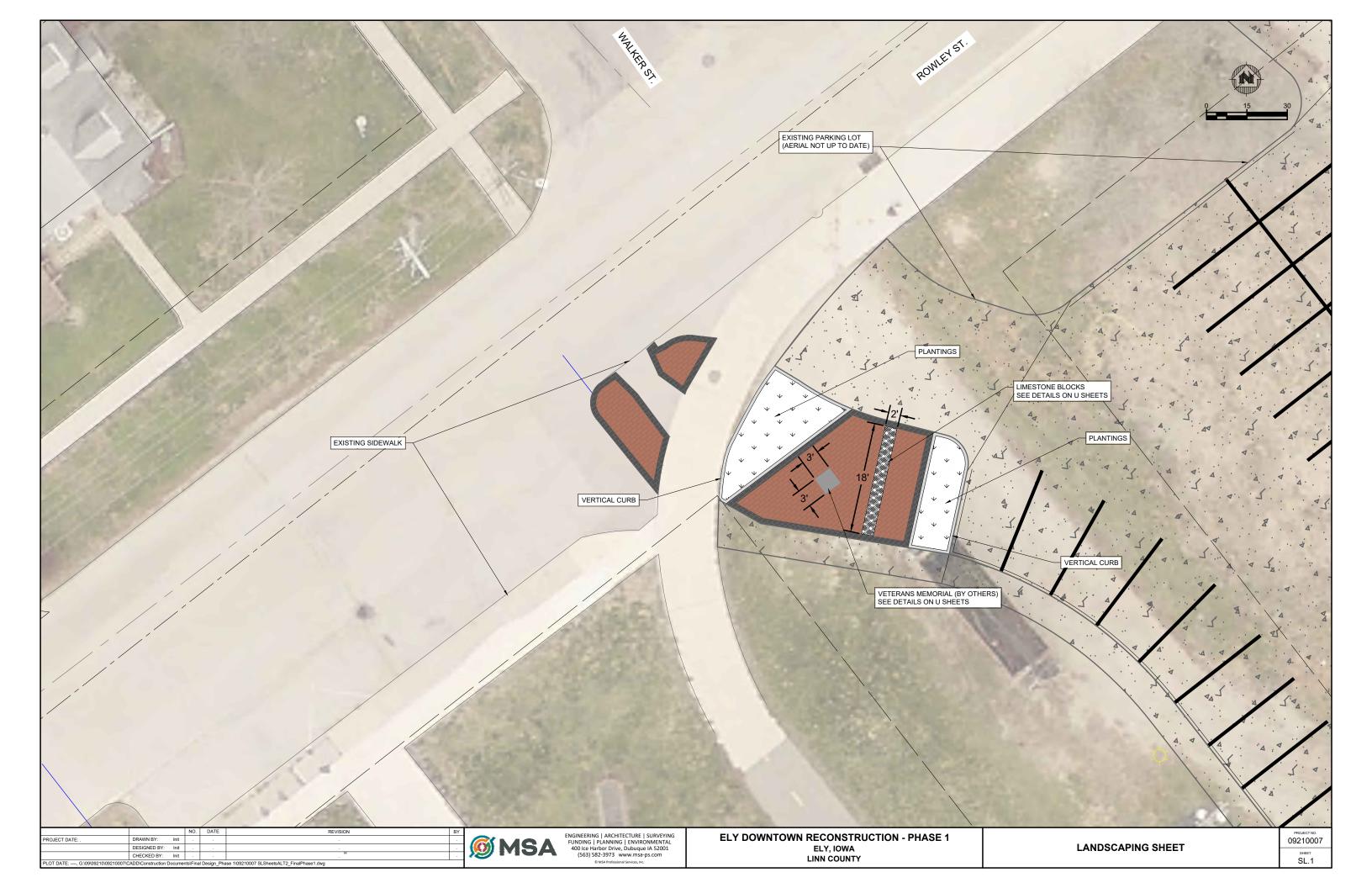


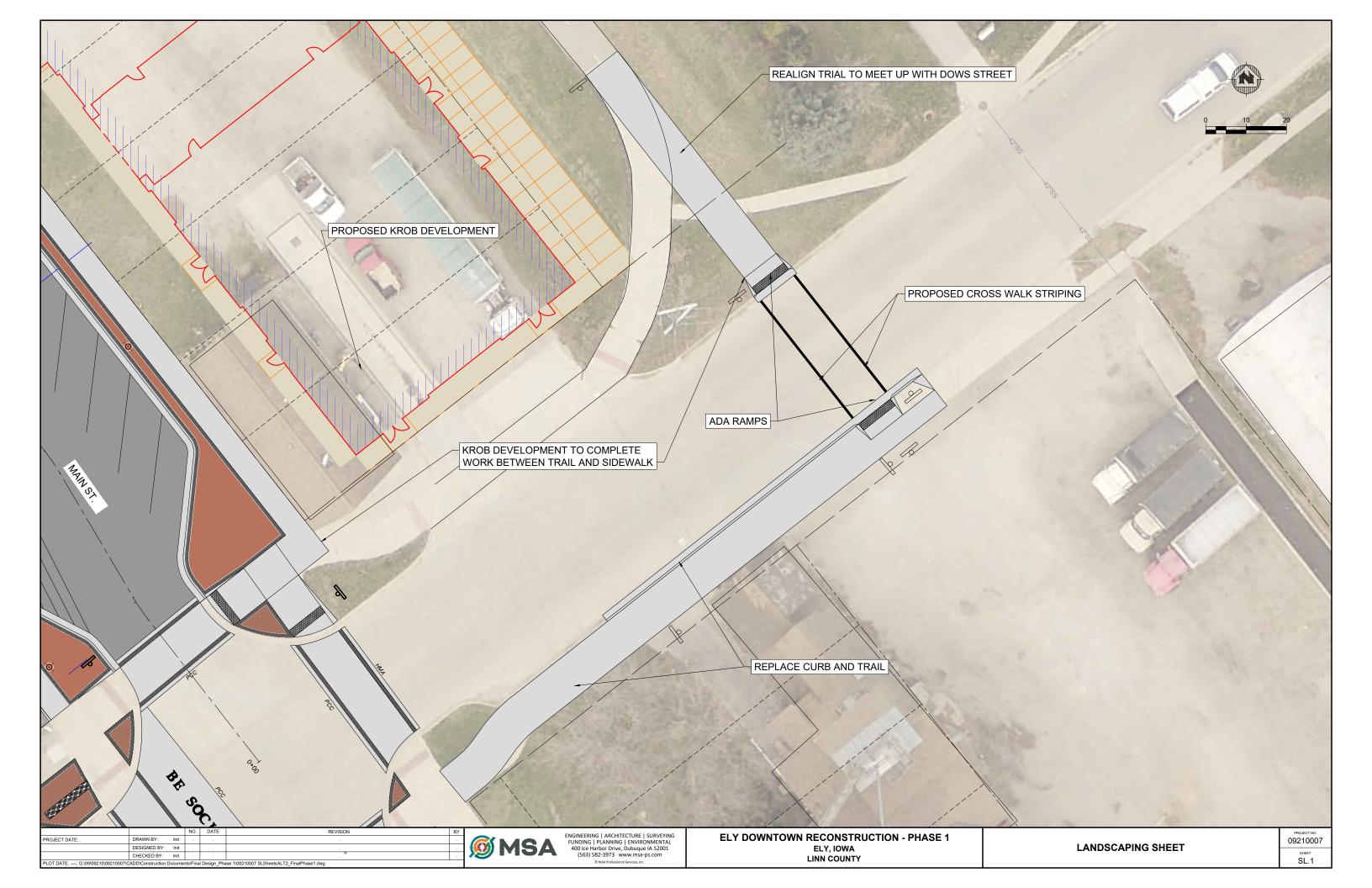


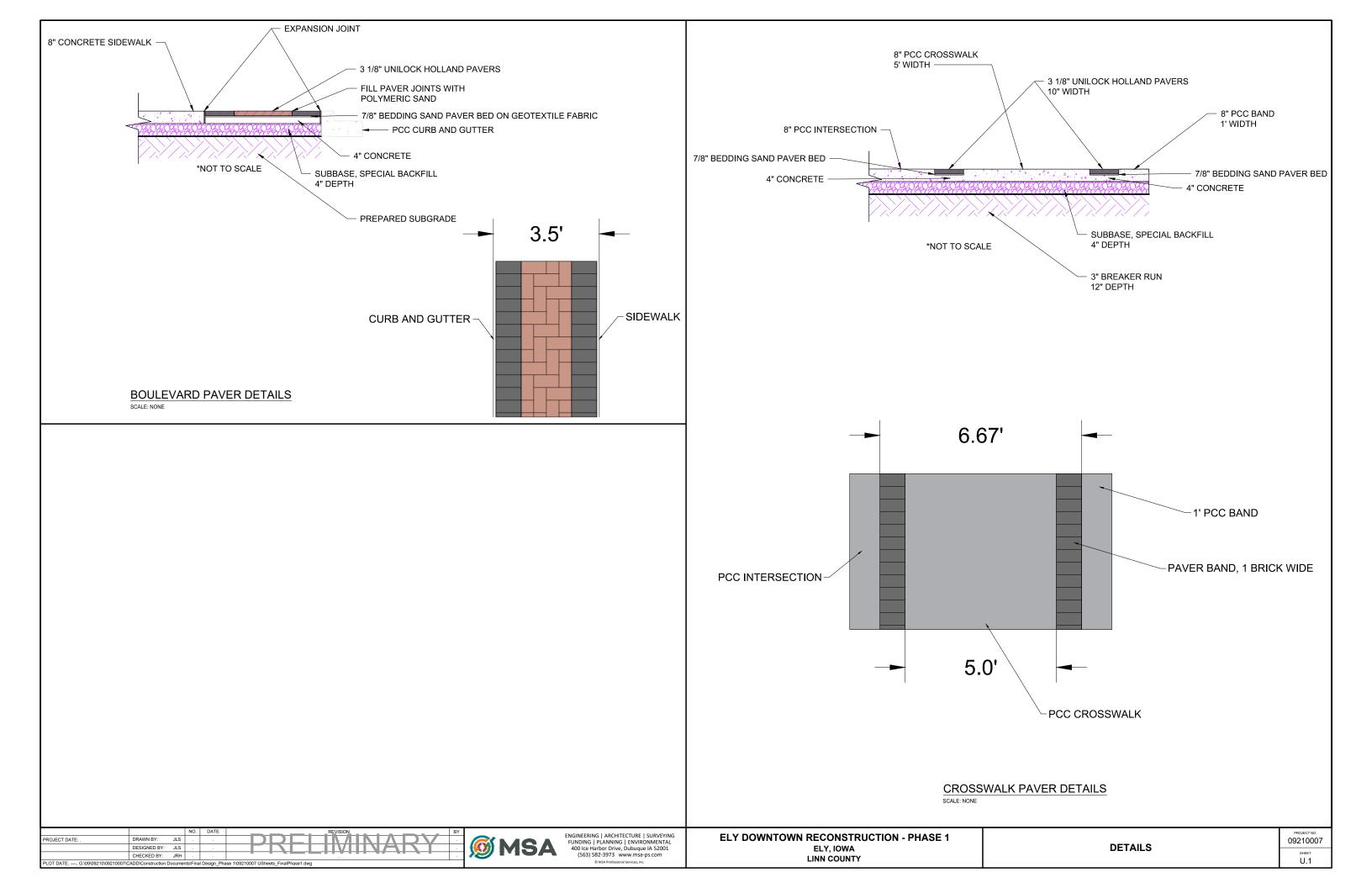












NOTE: 1. STONES TO BE SAWN CUT AT ADJOINING FACES #4 BAR, CONTINUOUS, 1'-0" AND GROUTED. MIN LAP JOINTS, MIN 2" CLEAR ALL SIDES, TYP. #3 BAR, 1'-4" O.C., MIN 2" CLEAR ALL SIDES, ROUND EXPOSED CORNERS, TYP. STANDARD 90 DEG HOOK LIMESTONE, SPLITFACE SIDES, SAWN TOP AND **PAVERS** BOTTOM, MIN 2.5' - MAX 4' LENGTH, TYP. DRILL LOOPS FOR BIKE FILL PAVER JOINTS WITH PARKING AT 2' SPACING UNILOCK WITH (SEE TYPICAL DETAIL) 1/2" CHAMFER, TYP POLYMERIC SAND --| 2'-0" +/-1/2" EXPANSION JOINT PLANTER CURB 14 3/4" PAVERS (SEE TYPICAL VARIES - PAVER AREA CURB PAVERS DETAIL) SEE PLAN - 1" TORPEDO SAND PAVER BED 1'-0" PLANTING SOIL 2'-6" +/- -- GRAVEL BASE, 4" DEPTH 24" PLANTING SOIL PREPARED SUBGRADE PREPARED SUBGRADE GRAVEL BASE, 4" DEPTH -PLANTER CURB AT PAVERS TYPICAL LANDSCAPE BED SCALE: NONE SCALE: NONE Refer to SW-514 for boxout details. 1 Install four #4 diagonal bars at all pipe 2SW-603 Type R unless Type Q is specified in the contract documents ③Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls. 412 inch minimum wall height above all SECTION A-A **PLAN** ENGINEERING | ARCHITECTURE | SURVEYING FUNDING | PLANNING | ENVIRONMENTAL 400 Ice Harbor Drive, Dubuque IA 52001 (563) 582-3973 www.msa-ps.com **ELY DOWNTOWN RECONSTRUCTION - PHASE 1** JLS 09210007 **DETAILS** DESIGNED BY: JLS ELY, IOWA U.2 LINN COUNTY

