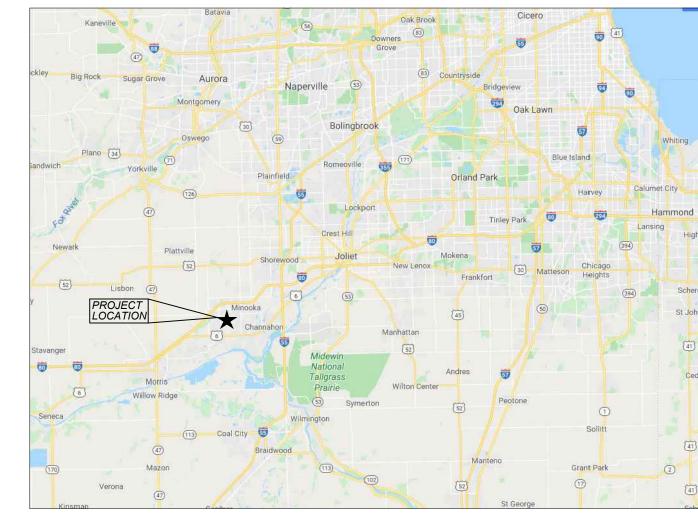
CONSTRUCTION DRAWINGS

CHICAGO LOGISTICS HUB -PHASE 1 EARLY EARTHWORK

GRUNDY COUNTY, CHANNAHON, ILLINOIS MAY 6, 2025



SITE LOCATION MAP SCALE: N.T.S.



SITE VICINITY MAP

SCALE: N.T.S.

BENCHMARKS

STATION DESIGNATION: SBM#1 ESTABLISHED BY: V3 COMPANIES DATE: 12/15/20

ELEVATION: 576.32 (MEASURED)

DATUM: NAVD88 DESCRIPTION: SET CROSS IN CONCRETE CURB ALONG NORTHEAST CORNER OF INTERSECTION OF MCLINDON ROAD AND TWIN RAIL ROAD.

STATION DESIGNATION: SBM#2 ESTABLISHED BY: V3 COMPANIES

DATE: 12/22/20 ELEVATION: 543.83 (MEASURED)

DATUM: NAVD88 DESCRIPTION: (V3 CP 125) IRON ROD IN CONCRETE NORTH SIDE OF ROUTE 6, LOCATED 480±' W. NI-GAS ROAD AND 51.4' N. OF EDGE OF PAVEMENT.

STATION DESIGNATION: SBM#3 **ESTABLISHED BY: V3 COMPANIES** DATE: 10/26/22

ELEVATION: 549.04 (MEASURED)

DATUM: NAVD88 DESCRIPTION: (V3 CP 150) SET MAG NAIL IN PAVEMENT NORTH SIDE OF ROUTE 6, LOCATED E. OF CONCRETE CULVERT, 115.5±' W. OF RAILROAD RIGHT OF WAY AND 1.6' S. OF EDGE OF PAVEMENT.

WISCONSIN CENTRAL LTD.

SUBDIVISION: ILLINOIS RIVER

MILE POST.: <u>23.33</u>

RR STATION: <u>714+46</u>

FOR CYREVIEW

FLOOD HAZARD NOTE

THIS PROPERTY IS IN AN AREA OF MINIMAL FLOODING (ZONE "X") AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS OF GRUNDY COUNTY, ILLINOIS (COMMUNITY PANEL NO'S. 17063C0060F, 17063C0065F, 17063C0070F) EFFECTIVE DATES AUGUST 2, 2012.

> LICENSED PROFESSIONAL /

ENGINEER

Information Excavators 800.892.0123 48 hours before you dig

PROFESSIONAL ENGINEER'S CERTIFICATION DWAYNE GILLAN, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT

THE CIVIL ENGINEERING PLANS WERE PREPARED ON BEHALF OF WISCONSIN CENTRAL, LTD. BY V3 COMPANIES, LTD. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.



ILLINOIS LICENSED DESIGN FIRM NO. 184-000902



NOT FOR CONSTRUCTION



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DATE BY

CHICAGO DIVISION
ILLINOIS RIVER SUB
MINOOKA / CHANNAHON

CHICAGO LOGISTICS HUB
-PHASE 1 EARLY EARTHWORK

APPROVALS

SHEET DRAWN BY: MI SCALE: N.T.S. DWG NO: G2
CHECKED BY: DG DATE:MAY 06, 2025 FILE:

- 1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
- 2. ALL RAILROAD CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CN ENGINEERING SPECIFICATIONS FOR INDUSTRIAL TRACKS, REV. JANUARY 31, 2019, CN ENGINEERING TRACK STANDARDS & THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION, MANUAL FOR RAILWAY ENGINEERING AND PORTFOLIO OF TRACKWORK PLANS.
- 3. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 4. THE LOCATION AND SIZE OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER LINES AND OTHER UTILITY LINES AS SHOWN ON THE PLANS, IS APPROXIMATE AND THEIR SIZE AND HORIZONTAL AND VERTICAL LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. NO COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR FAILURE TO VERIFY SAID MATERIALS AND LOCATIONS OR TO NOTIFY THE RAILROAD OF ANY INCONSISTENCIES.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITY OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR 72 HOURS PRIOR TO EXCAVATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN
 THOUGH IT MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED
 OR REPLACED TO THE SATISFACTION OF THE ENGINEER OR OWNER. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 7. AT LEAST 10 DAYS PRIOR TO ANY EXCAVATION WORK ON OR ADJACENT TO THE TRACKS, THE CONTRACTOR SHALL CONTACT THE CN RAILROAD FOR SIGNAL CABLE LOCATION. THE CN WILL PERFORM ANY SIGNAL CABLE RELOCATION AT LEAST 72 HOURS PRIOR TO ANY EXCAVATING, THE CONTRACTOR SHALL CALL JULIE AT 811 OR (800) 892-0123 TO LOCATE ALL OTHER BURIED UTILITIES.
- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.
- 9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
- 10. SOILS REPORT BY TSC DATED 3/11/21, 6/27/23, AND 12/28/23 ARE MADE A PART OF THE THIS CONTRACT. ALL INFORMATION CONCERNING COMPACTION, UNSUITABLE MATERIAL, RE-USE OF ON-SITE MATERIALS, SOILS CONTAINING ORGANIC MATERIALS, BORING AND BORING LOGS ARE ALL CONTAINED WITHIN THE SOILS REPORT FOR INFORMATIONAL PURPOSES. NO ADDITIONAL COMPENSATION BEYOND THE BASE BID WILL BE PROVIDED FOR UNSUITABLE EXCAVATION.
- 11. ALL WORK WITHIN CN R/W OR 25' OF ANY CN TRACK WILL REQUIRE FLAGGING PROTECTION, TO BE PROVIDED BY CN. ANY FLAGGING PROTECTION REQUESTED BY CONTRACTOR AND NOT USED WILL BE AT THE CONTRACTOR'S EXPENSE.
- 12. ALL SCRAP TIES, SCRAP RAIL, AND OTM SHALL BE MOVED TO A LOCATION AS DIRECTED BY THE CN FIELD ENGINEER. ALL METAL TO BE REMOVED FROM THE TIES.
- 13. PROTECT AND MAINTAIN EXISTING SIGNAL CABLES, SIGNALS, AND SIGNAL BUNGALOWS.
- 14. ANY POWER POLES TO BE REMOVED SHALL BE COMPLETELY PULLED. SAWING POLE AND LEAVING THE BASE IN THE GROUND IS PROHIBITED.
- 15. CLEARING ACTIVITIES SHALL BE DONE TO INCLUDE ALL AREAS WITHIN THE WORK LIMIT.
- 16. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKEOUT.

LEGEND

EXISTING	PROPOSED	DESCRIPTION	<u>EXISTING</u>	PROPOSED	DESCRIPTION
		RIGHT-OF-WAY LINE			CONCRETE HEADWALL
		LOT LINE (INTERIOR))——)——	SUBMERGED HEADWALL
		EASEMENT LINE			FLARED END SECTION (F.E.S.)
		FENCE LINE	———	————	GUY WIRES
		CENTERLINE	< €	4	FLOOD LIGHT
•		PROPERTY CORNER	<u> </u>		UTILITY POLE
 710 	 710 	CONTOUR	X		LIGHT STANDARD
		CURB & GUTTER		- >	TRAFFIC SIGNAL POLE
		DEPRESSED CURB & GUTTER			HAND HOLE
		REVERSE PITCHED CURB			SOIL BORING
× 706.00	× 706.0	SPOT ELEVATION	8	\	IRRIGATION HEADS
<u>782.62</u> 782.12	782.62 782.12	TOP OF CURB ELEVATION EDGE OF PAVEMENT ELEVATION		•	SIGN
		UTILITY STUB	T	\bigcirc	TELEPHONE MANHOLE
-))	—)———)—	SANITARY SEWER	M	M	MONITORING WELL
-)	_ >>_	SANITARY FORCE MAIN	T	T	TELEPHONE PEDESTAL
>>-	->	STORM SEWER	TP	TP	TRANSFORMER PAD
W	—— w ——	WATER MAIN			UTILITY TO BE ABANDONED
G	——— G———	GAS MAIN		∑ 12" XX	FEATURE TO BE REMOVED
— т/е ——	——— т/E ———	UNDERGROUND TELEPHONE		← ~	STORMWATER FLOW DIRECTION
_	-	& ELECTRIC DUCT BANK		-	STORMWATER OVERFLOW ROL
	—— E——	BURIED CABLE-ELECTRIC	V		DITCH CHECK
()	T	BURIED CABLE-TELEPHONE ATLAS LOCATED UTILITY		⟨_⟩ □	INLET FILTER BASKET
\ /	—— OHF—— OHF——	OVERHEAD POWER LINE			RIP RAP
	—— GAS ——— GAS ——	GAS LINE		0	BOLLARD
		FIBER OPTIC LINE	SF		SILT FENCE
		FIELD DRAIN TILES			WATER MAIN PROTECTION
				C01	UTILITY CROSSING LABEL
		UTILITY STRUCTURE WITH CLOSED LID			GUARDRAIL
		CURB INLET			DI III DINIO
		DRAINAGE STRUCTURE WITH OPEN LID			BUILDING
X	₩	FIRE HYDRANT			REVISION DELINEATION
\otimes		VALVE IN VALVE BOX		CLL	CONSTRUCTION LIMIT LINE
\otimes	②	GATE VALVE IN VALVE VAULT			
0-	•	POST INDICATOR VALVE			TREE PROTECTION FENCE
and Aller		THRUST BLOCK		-	EARTHEN BUMPER
+ 12"		TREE			PROPOSED SIDING/SPUR TRAC
///\\		TREE LINE			FUTURE TRACK

ABBREVIATIONS

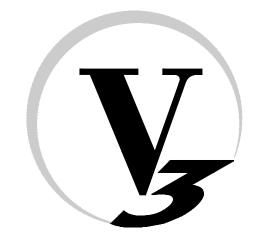
FLARED END SECTION FACE TO FACE OF CURB

		FF	FINISHED FLOOR	NIC	NOT IN CONTRACT / NOT INCLUDED		
A	ARC LENGTH	F/G	FINISHED GRADE	NWL	NORMAL WATER LEVEL	SAN	SANITARY
B-B	BACK TO BACK OF CURB	FH	FIRE HYDRANT	ОС	ON CENTER	SF	SILTATION FENCE
B/C	BACK OF CURB	F/L	FLOW LINE	OL	OPEN LID	SFM	SANITARY FORCE MAIN
BLDG	BUILDING	G	GAS LINE	PC	POINT OF CURVATURE	SHT	SHEET
BM B/D	BENCHMARK	GV/VB	GATE VALVE IN VALVE BOX	PCC	PORTLAND CEMENT CONCRETE	SHW	SUBMERGED HEADWALL
B/P	BOTTOM OF PIPE	GV/VV	GATE VALVE IN VALVE VAULT		OR POINT OF COMPOUND CURVE	SMH	SANITARY MANHOLE
BV/VV	BUTTERFLY VALVE IN VALVE VAULT	HDCP	HANDICAP	PGL	PROFILE GRADE LINE	SSP	SMOOTH STEEL PIPE
C & G	CURB AND GUTTER	HDPE	HIGH DENSITY POLYETHYLENE PIPE	PI	POINT OF INTERSECTION	STA	STATION
СВ	CATCH BASIN	HDW	HEADWALL	PL	PROPERTY LINE	ST	STORM STRUCTURE OR STORM SEWER
Ę.	CENTERLINE	HOR	HORIZONTAL	PP	POWER POLE	STMH	STORM MANHOLE
CL	CLOSED LID	HP	HIGH POINT	PRC	POINT OF REVERSE CURVATURE	Т	TANGENT LENGTH OR TELEPHONE
CO	CLEAN OUT	HWL	HIGH WATER LEVEL	PS	POINT OF SWITCH	T/C	TOP OF CURB
DIP	DUCTILE IRON PIPE	ΙE	INVERT ELEVATION	PT	POINT OF TANGENCY	T/P	TOP OF PIPE
DIA	DIAMETER	IN	INLET	PUE	PUBLIC UTILITY EASEMENT	T/W	TOP OF WALL
DIWM	DUCTILE IRON WATER MAIN	LF	LINEAL FEET	PVC	POINT OF VERTICAL CURVATURE	TY	TYPE
DWG	DRAWING	LP	LOW POINT OR LIGHT POLE		OR POLYVINYL CHLORIDE PIPE	TYP	TYPICAL
Е	EAST OR ELECTRIC OR EDGE	L	LEFT	PVI	POINT OF VERTICAL INTERSECTION	UP	UTILITY POLE
EJ	EXPANSION JOINT	ME	MATCH EXISTING	PVT	POINT OF VERTICAL TANGENCY	VC	VERTICAL CURVE
ELEV	ELEVATION	MH	MANHOLE	R	RADIUS OR RIGHT	VERT	VERTICAL
E/P	EDGE OF PAVEMENT	MW	MONITORING WELL	RCP	REINFORCED CONCRETE PIPE	VCP	VITRIFIED CLAY PIPE
EX.	EXISTING	N	NORTH	ROW	RIGHT OF WAY	W	WEST
F & CL	FRAME & CLOSED LID			S	SLOPE OR SOUTH	WM	WATER MAIN
F & G	FRAME & GRATE			J	223. 2 61. 666 11.	* * 1 * 1	
F & OL	FRAME & OPEN LID						

REVISIONS

BY

DATE



V3 Companies 7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com



WISCONSIN CENTRAL LTD.

CHICAGO DIVISION

ILLINOIS RIVER SUB

MINOOKA / CHANNAHON

CHICAGO LOGISTICS HUB
-PHASE 1 EARLY EARTHWORK

NOTES, LEGEND, AND ABBREVIATIONS

-PHASE 1 EARLY EARTHWORK

OFFICE OF DESIGN & CONSTRUCTION
DRAWN BY: MI SCALE: N.T.S. DWG NO: G3

SHEET DRAWN BY: MI SCALE: N.T.S. DWG
OF 46 CHECKED BY: DG DATE:MAY 06, 2025 FILE:

SPECIFICATIONS

EARTHWORK

- 1. THE GRADING OPERATIONS ARE TO BE INSPECTED BY A THIRD PARTY SOILS ENGINEER. THE CONTRACTOR'S REPRESENTATIVE MUST BE NOTIFIED PRIOR TO ANY UNSUITABLE SOIL REMOVAL AND MUST APPROVE, IN WRITING, ANY REMEDIATION. BOTH THE CONTRACTOR AND SOILS ENGINEER MUST BE PRESENT DURING REMEDIATION.
- 2. THE PROPOSED GRADING ELEVATIONS SHOWN ARE FINISHED MASS GRADE. TOPSOIL TO BE PLACED IN SELECT AREAS ONLY, REFER TO PLANS FOR ADDITIONAL INFORMATION. WHERE TOPSOIL IS NOTED, SUBTRACT TOPSOIL THICKNESS TO ACHIEVE SUBGRADE ELEVATION.
- 3. THE SURFACE VEGETATION, TOPSOIL, TRANSITIONAL MATERIAL, AND ANY OBVIOUSLY SOFT UNDERLYING SOIL SHALL BE STRIPPED FROM ALL AREAS TO RECEIVE STRUCTURAL FILL. IF THE UNDERLYING SUBGRADE IS FOUND TO BE UNSUITABLE FOR PROPER COMPACTION, CONTRACTOR TO CONSULT WITH SOILS ENGINEER PRIOR TO REMEDIATION.
- 4. EMBANKMENT MATERIAL WITHIN ROADWAY, DRIVEWAY, BUILDING AND OTHER STRUCTURAL CLAY FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D1557 (MODIFIED PROCTOR METHOD), OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOILS ENGINEER, THE AUTHORITY HAVING JURISDICTION, AND THE CONTRACTOR.
- 5. ALL PAVEMENT SUBGRADE SHALL MEET THE REQUIREMENTS DETERMINED BY THE SOILS ENGINEER AND DOCUMENTED IN THE GEOTECHNICAL REPORT. IF AREAS OF PAVEMENT SUBGRADE ARE ENCOUNTERED WHICH DO NOT MEET THESE REQUIREMENTS, SUBGRADE REPLACEMENT OR PAVEMENT DESIGN REVISIONS SHALL BE PROVIDED WHICH ARE ADEQUATE TO OBTAIN EQUIVALENT PAVEMENT STRENGTH AS DETERMINED BY THE ENGINEER, SOILS ENGINEER, AND THE AUTHORITY HAVING JURISDICTION.
- 6. COMPLETED GRADING (FINISHED FINE GRADE) FOR PROPOSED PAVEMENT SUBGRADE AREAS, BUILDING PADS, AND OPEN SPACE AREAS SHALL BE WITHIN A 0.1' TOLERANCE OF DESIGN SUBGRADE.
- 7. THE SUBGRADE FOR PROPOSED STREET AND PAVEMENT AREAS SHALL BE PROOF-ROLLED BY THE SUBCONTRACTOR IN THE PRESENCE OF THE JURISDICTIONAL INSPECTOR, CONTRACTOR, AND SOILS ENGINEER.
- 8. BORROW PIT LOCATION(S) SHALL BE APPROVED BY THE OWNER, ENGINEER, AND GEOTECHNICAL ENGINEER.
- 9. THE HIGH WATER LINE (HWL) OF ALL THE PROPOSED PONDS ARE FOR THE FUTURE DEVELOPED STATE OF THE SITE. IN THE STATE AS DEPICTED, THE PONDS MAY NOT FILL UP TO THE HWL.

STORM SEWER

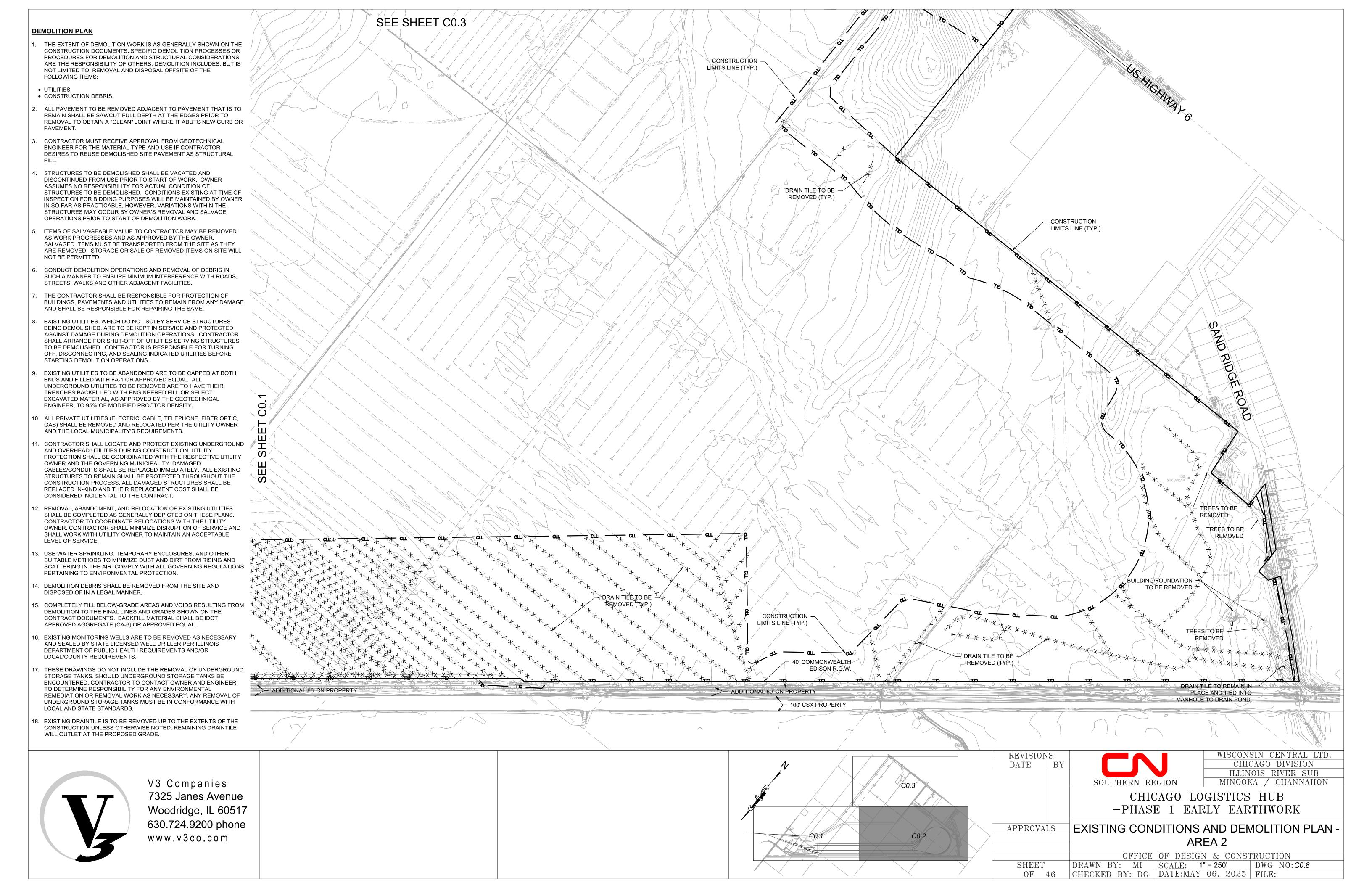
- 1. STORM SEWERS SHALL BE CONSTRUCTED OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:
 - A. REINFORCED CONCRETE PIPE (RCP) IN CONFORMANCE WITH IDOT STANDARD SPECIFICATIONS DETERMINATION FOR PIPE CLASS, AND CONFORMING TO ASTM C76. ALL STORM SEWER SHALL HAVE GASKETED JOINTS CONFORMING TO ASTM C-361, C443, OR C507 UNLESS OTHERWISE NOTED.
 - B. POLYVINYL CHLORIDE PLASTIC SEWER PIPE (PVC) CONFORMING TO ASTM D3034 WITH ELASTOMERIC GASKETJOINTS CONFORMING TO ASTM D3212.
 - C. SMOOTH STEEL PIPE (SSP) CONFORMING TO ASTM A36, A139, A515, OR A572 UNLESS OTHERWISE NOTED.
- 2. STORM SEWER STRUCTURES SHALL BE PRECAST OF THE TYPE AND DIAMETER AS SPECIFIED IN THE PLANS WITH APPROPRIATE FRAME AND LIDS (SEE CONSTRUCTION DETAIL).



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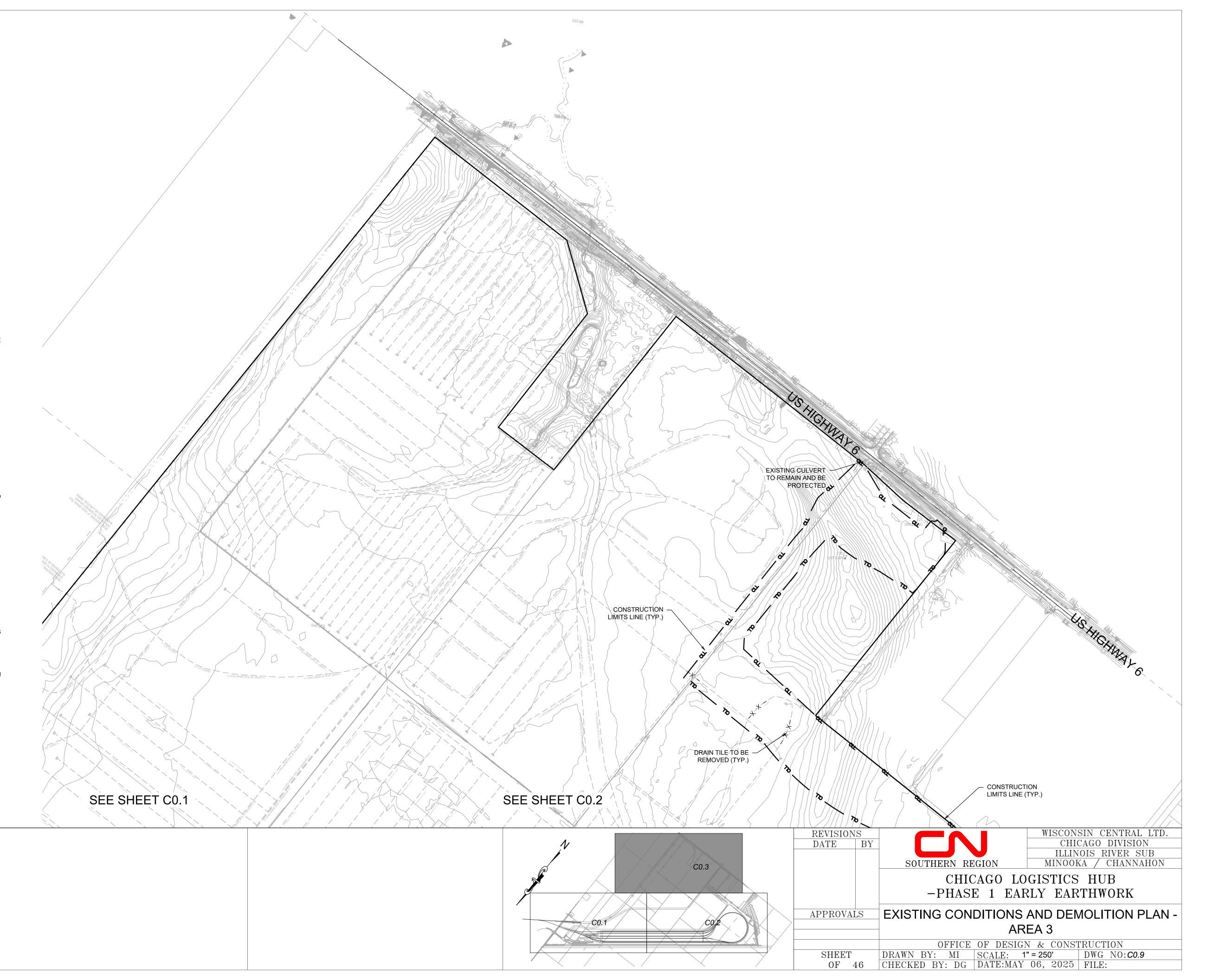
WISCONSIN CENTRAL LTD. REVISIONS CHICAGO DIVISION DATE BY ILLINOIS RIVER SUB MINOOKA / CHANNAHON SOUTHERN REGION CHICAGO LOGISTICS HUB -PHASE 1 EARLY EARTHWORK APPROVALS SPECIFICATIONS OFFICE OF DESIGN & CONSTRUCTION DRAWN BY: MI SCALE: N.T.S. DWG CHECKED BY: DG DATE:MAY 06, 2025 FILE: SHEET DWG NO: G4 OF 46





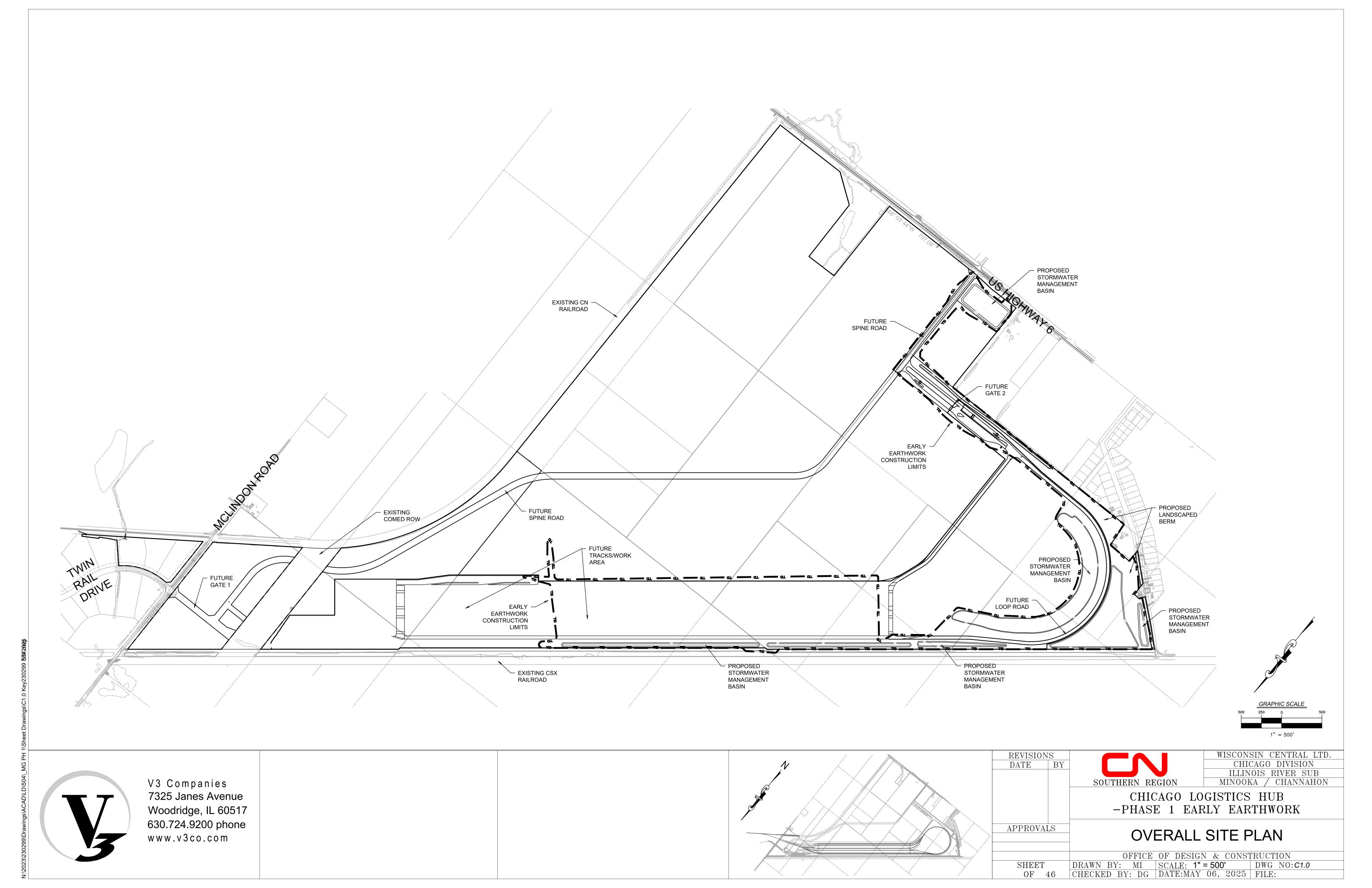
DEMOLITION PLAN

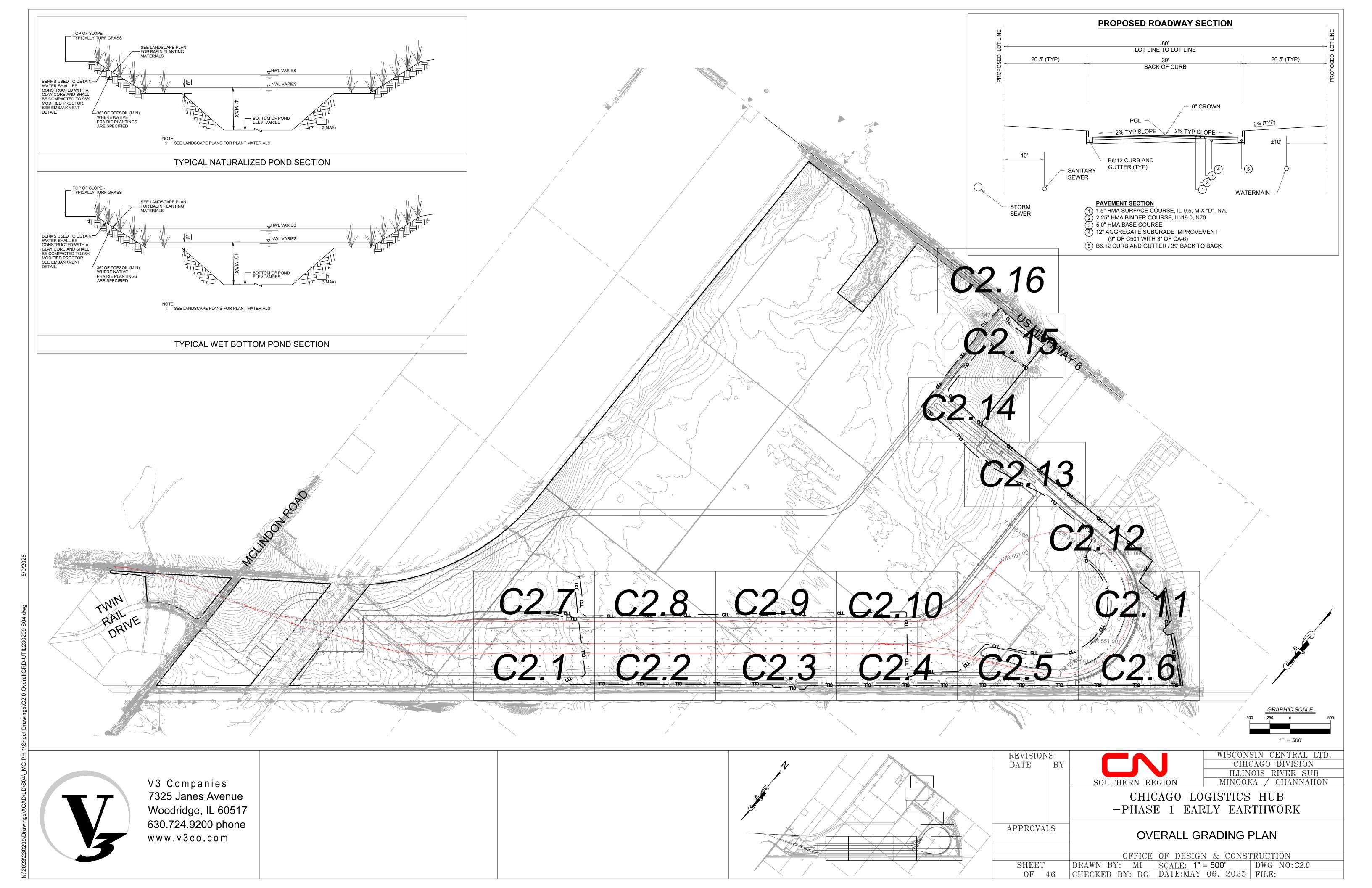
- 1. THE EXTENT OF DEMOLITION WORK IS AS GENERALLY SHOWN ON THE CONSTRUCTION DOCUMENTS. SPECIFIC DEMOLITION PROCESSES OR PROCEDURES FOR DEMOLITION AND STRUCTURAL CONSIDERATIONS ARE THE RESPONSIBILITY OF OTHERS. DEMOLITION INCLUDES, BUT IS NOT LIMITED TO, REMOVAL AND DISPOSAL OFFSITE OF THE FOLLOWING ITEMS:
- UTILITIES
- CONSTRUCTION DEBRIS
- 2. ALL PAVEMENT TO BE REMOVED ADJACENT TO PAVEMENT THAT IS TO REMAIN SHALL BE SAWCUT FULL DEPTH AT THE EDGES PRIOR TO REMOVAL TO OBTAIN A "CLEAN" JOINT WHERE IT ABUTS NEW CURB OR PAVEMENT
- 3. CONTRACTOR MUST RECEIVE APPROVAL FROM GEOTECHNICAL ENGINEER FOR THE MATERIAL TYPE AND USE IF CONTRACTOR DESIRES TO REUSE DEMOLISHED SITE PAVEMENT AS STRUCTURAL FILL
- 4. STRUCTURES TO BE DEMOLISHED SHALL BE VACATED AND DISCONTINUED FROM USE PRIOR TO START OF WORK. OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF STRUCTURES TO BE DEMOLISHED. CONDITIONS EXISTING AT TIME OF INSPECTION FOR BIDDING PURPOSES WILL BE MAINTAINED BY OWNER IN SO FAR AS PRACTICABLE. HOWEVER, VARIATIONS WITHIN THE STRUCTURES MAY OCCUR BY OWNER'S REMOVAL AND SALVAGE OPERATIONS PRIOR TO START OF DEMOLITION WORK.
- 5. ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED AS WORK PROGRESSES AND AS APPROVED BY THE OWNER. SALVAGED ITEMS MUST BE TRANSPORTED FROM THE SITE AS THEY ARE REMOVED. STORAGE OR SALE OF REMOVED ITEMS ON SITE WILL NOT BE PERMITTED.
- 6. CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF BUILDINGS, PAVEMENTS AND UTILITIES TO REMAIN FROM ANY DAMAGE AND SHALL BE RESPONSIBLE FOR REPAIRING THE SAME.
- 8. EXISTING UTILITIES, WHICH DO NOT SOLEY SERVICE STRUCTURES BEING DEMOLISHED, ARE TO BE KEPT IN SERVICE AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR SHALL ARRANGE FOR SHUT-OFF OF UTILITIES SERVING STRUCTURES TO BE DEMOLISHED. CONTRACTOR IS RESPONSIBLE FOR TURNING OFF, DISCONNECTING, AND SEALING INDICATED UTILITIES BEFORE STARTING DEMOLITION OPERATIONS.
- 9. EXISTING UTILITIES TO BE ABANDONED ARE TO BE CAPPED AT BOTH ENDS AND FILLED WITH FA-1 OR APPROVED EQUAL. ALL UNDERGROUND UTILITIES TO BE REMOVED ARE TO HAVE THEIR TRENCHES BACKFILLED WITH ENGINEERED FILL OR SELECT EXCAVATED MATERIAL, AS APPROVED BY THE GEOTECHNICAL ENGINEER, TO 95% OF MODIFIED PROCTOR DENSITY.
- 10. ALL PRIVATE UTILITIES (ELECTRIC, CABLE, TELEPHONE, FIBER OPTIC, GAS) SHALL BE REMOVED AND RELOCATED PER THE UTILITY OWNER AND THE LOCAL MUNICIPALITY'S REQUIREMENTS.
- 11. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UNDERGROUND AND OVERHEAD UTILITIES DURING CONSTRUCTION. UTILITY PROTECTION SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY OWNER AND THE GOVERNING MUNICIPALITY. DAMAGED CABLES/CONDUITS SHALL BE REPLACED IMMEDIATELY. ALL EXISTING STRUCTURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PROCESS. ALL DAMAGED STRUCTURES SHALL BE REPLACED IN-KIND AND THEIR REPLACEMENT COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 12. REMOVAL, ABANDOMENT, AND RELOCATION OF EXISTING UTILITIES SHALL BE COMPLETED AS GENERALLY DEPICTED ON THESE PLANS. CONTRACTOR TO COORDINATE RELOCATIONS WITH THE UTILITY OWNER. CONTRACTOR SHALL MINIMIZE DISRUPTION OF SERVICE AND SHALL WORK WITH UTILITY OWNER TO MAINTAIN AN ACCEPTABLE LEVEL OF SERVICE.
- 13. USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO MINIMIZE DUST AND DIRT FROM RISING AND SCATTERING IN THE AIR. COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- 14. DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
- 15. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION TO THE FINAL LINES AND GRADES SHOWN ON THE CONTRACT DOCUMENTS. BACKFILL MATERIAL SHALL BE IDOT APPROVED AGGREGATE (CA-6) OR APPROVED EQUAL.
- 16. EXISTING MONITORING WELLS ARE TO BE REMOVED AS NECESSARY AND SEALED BY STATE LICENSED WELL DRILLER PER ILLINOIS DEPARTMENT OF PUBLIC HEALTH REQUIREMENTS AND/OR LOCAL/COUNTY REQUIREMENTS.
- 17. THESE DRAWINGS DO NOT INCLUDE THE REMOVAL OF UNDERGROUND STORAGE TANKS. SHOULD UNDERGROUND STORAGE TANKS BE ENCOUNTERED, CONTRACTOR TO CONTACT OWNER AND ENGINEER TO DETERMINE RESPONSIBILITY FOR ANY ENVIRONMENTAL REMEDIATION OR REMOVAL WORK AS NECESSARY. ANY REMOVAL OF UNDERGROUND STORAGE TANKS MUST BE IN CONFORMANCE WITH LOCAL AND STATE STANDARDS.
- 18. EXISTING DRAINTILE IS TO BE REMOVED UP TO THE EXTENTS OF THE CONSTRUCTION UNLESS OTHERWISE NOTED. REMAINING DRAINTILE WILL OUTLET AT THE PROPOSED GRADE.

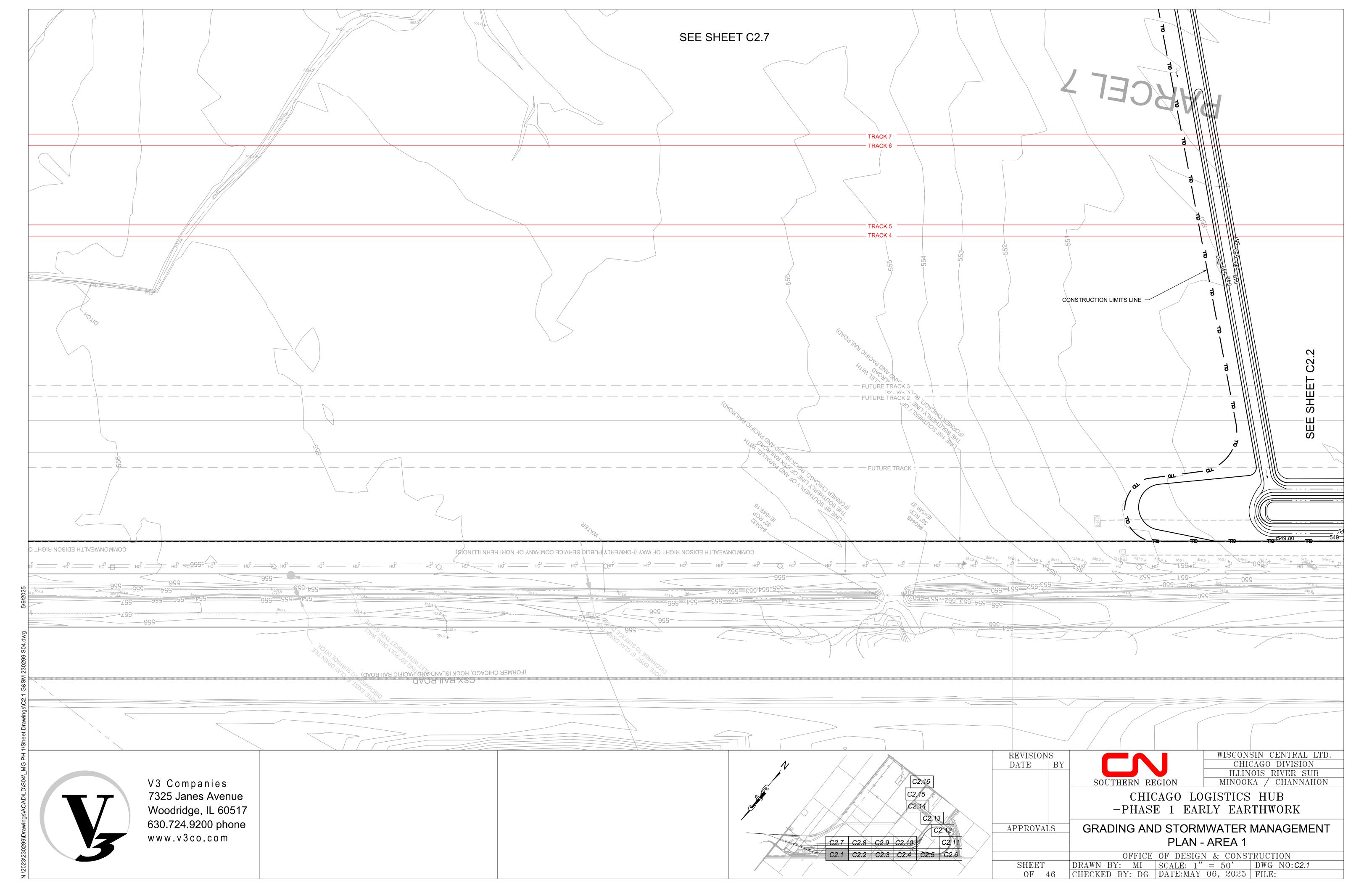


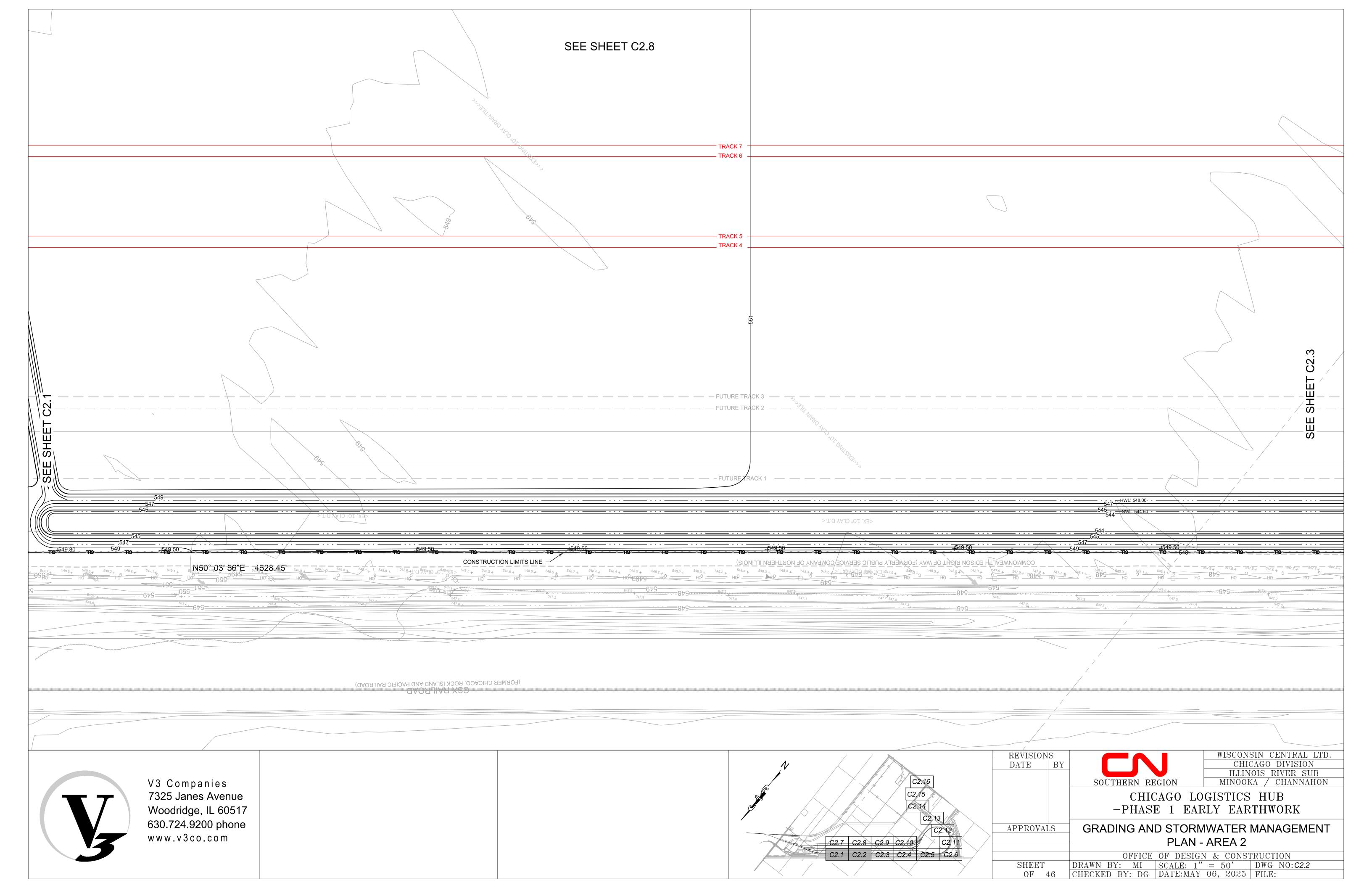


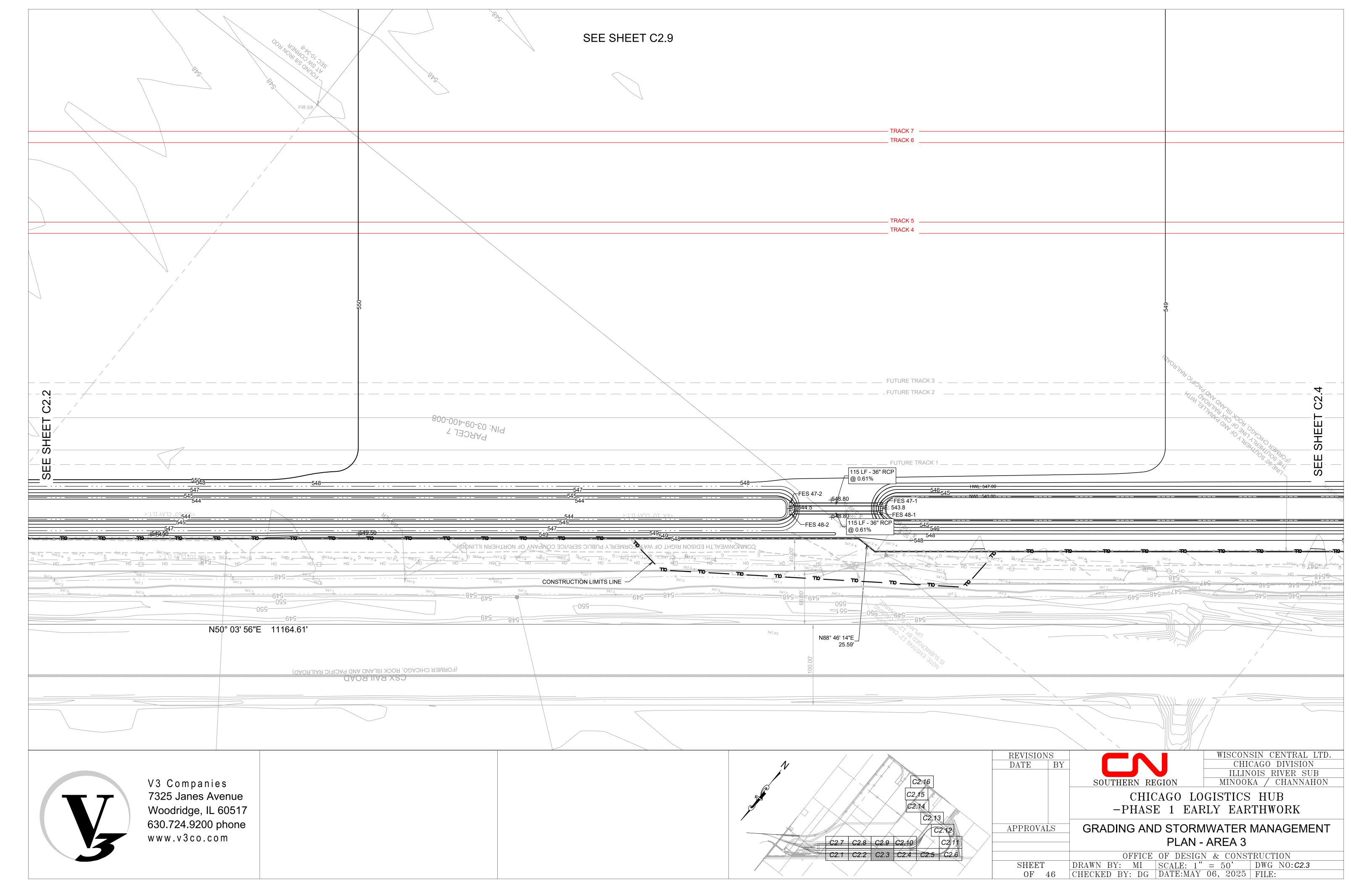
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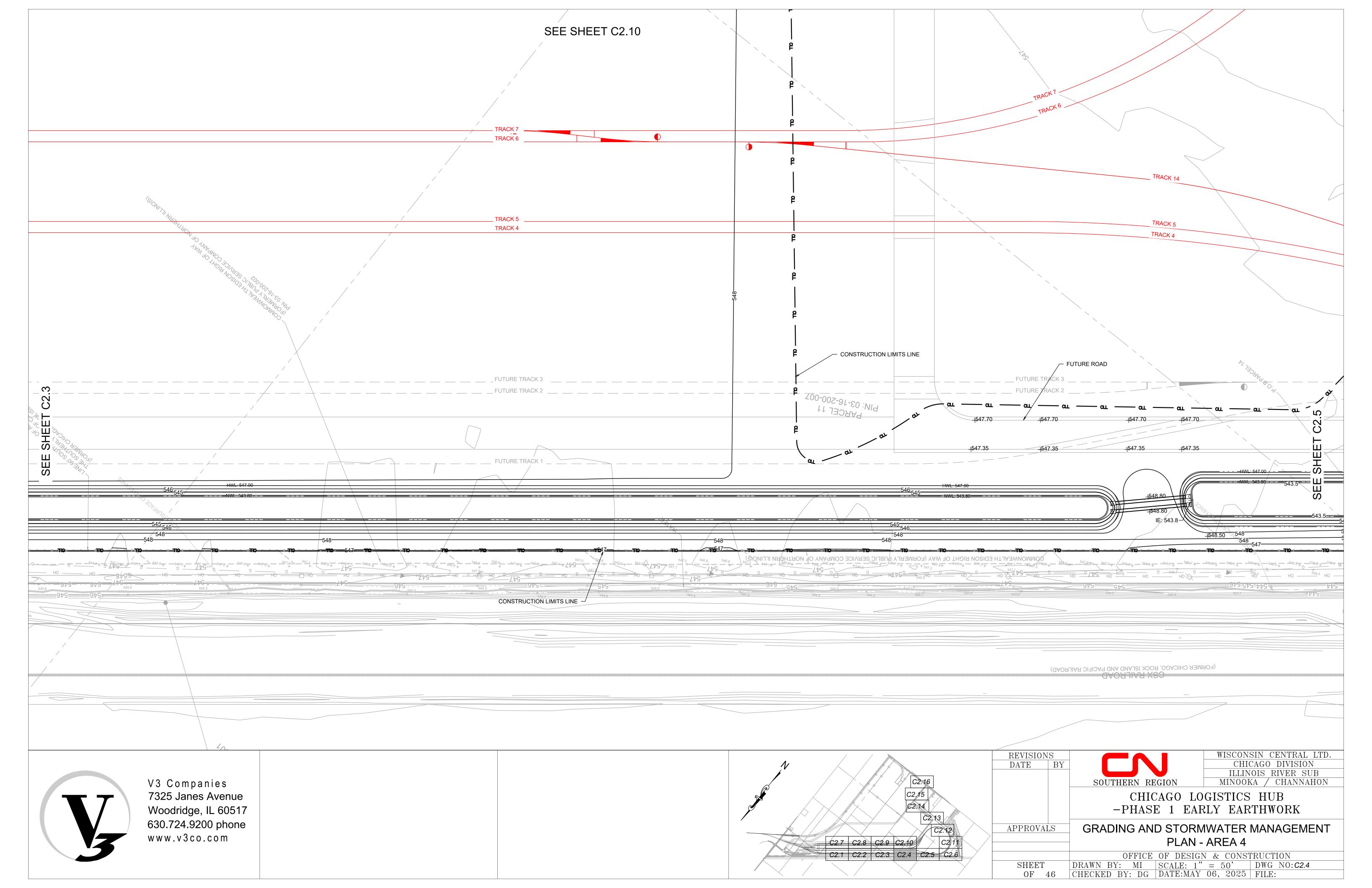


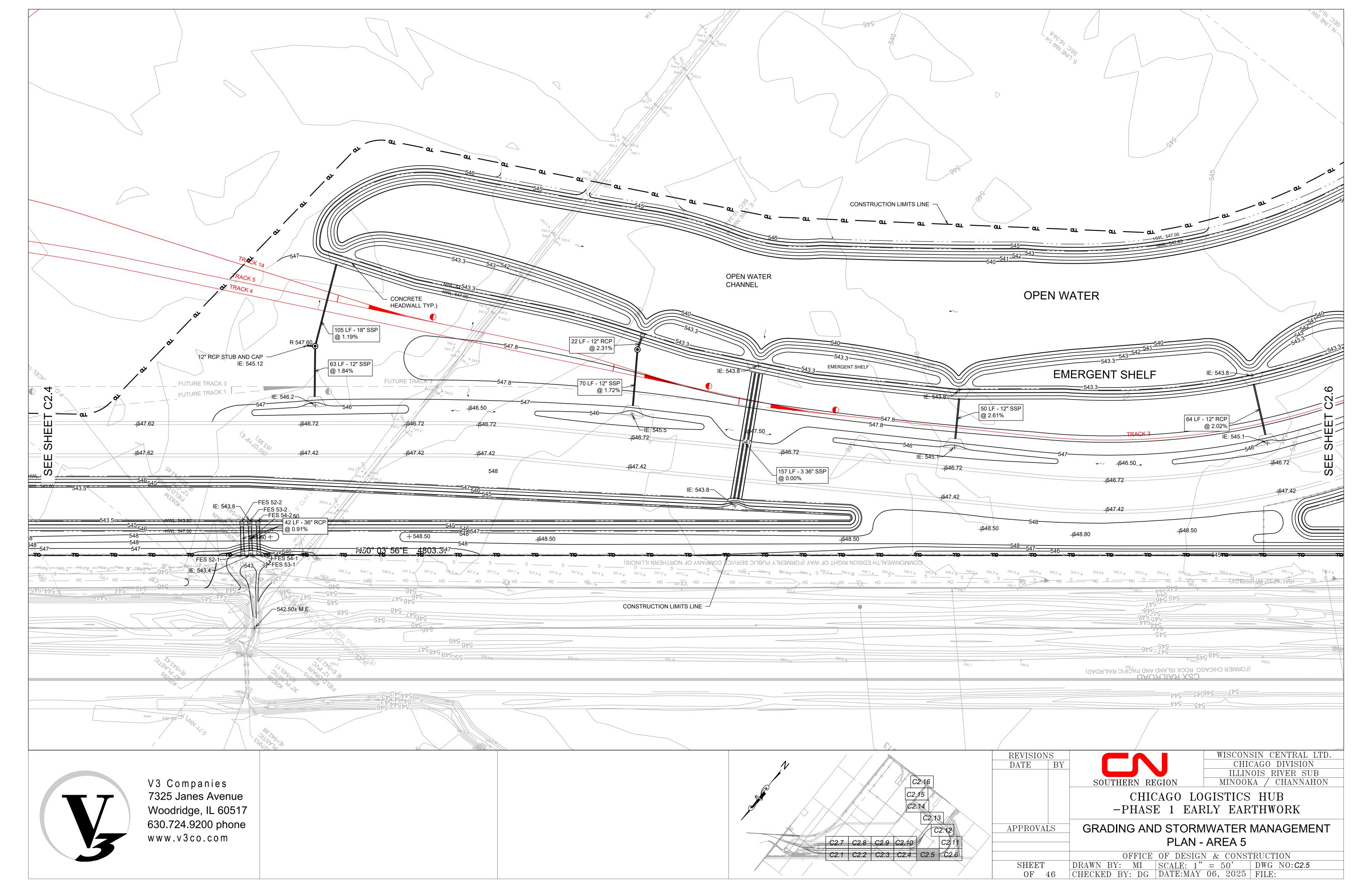


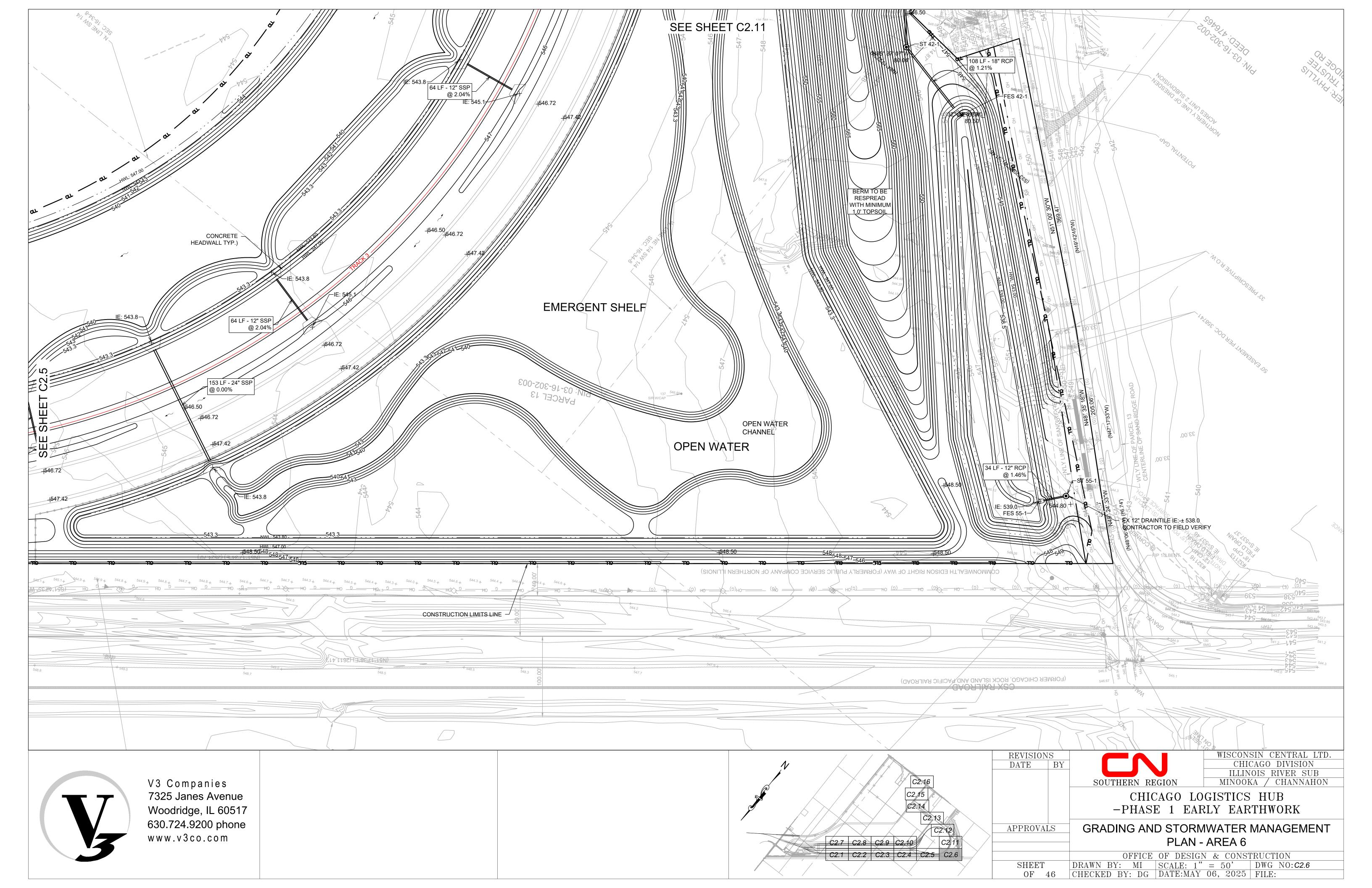


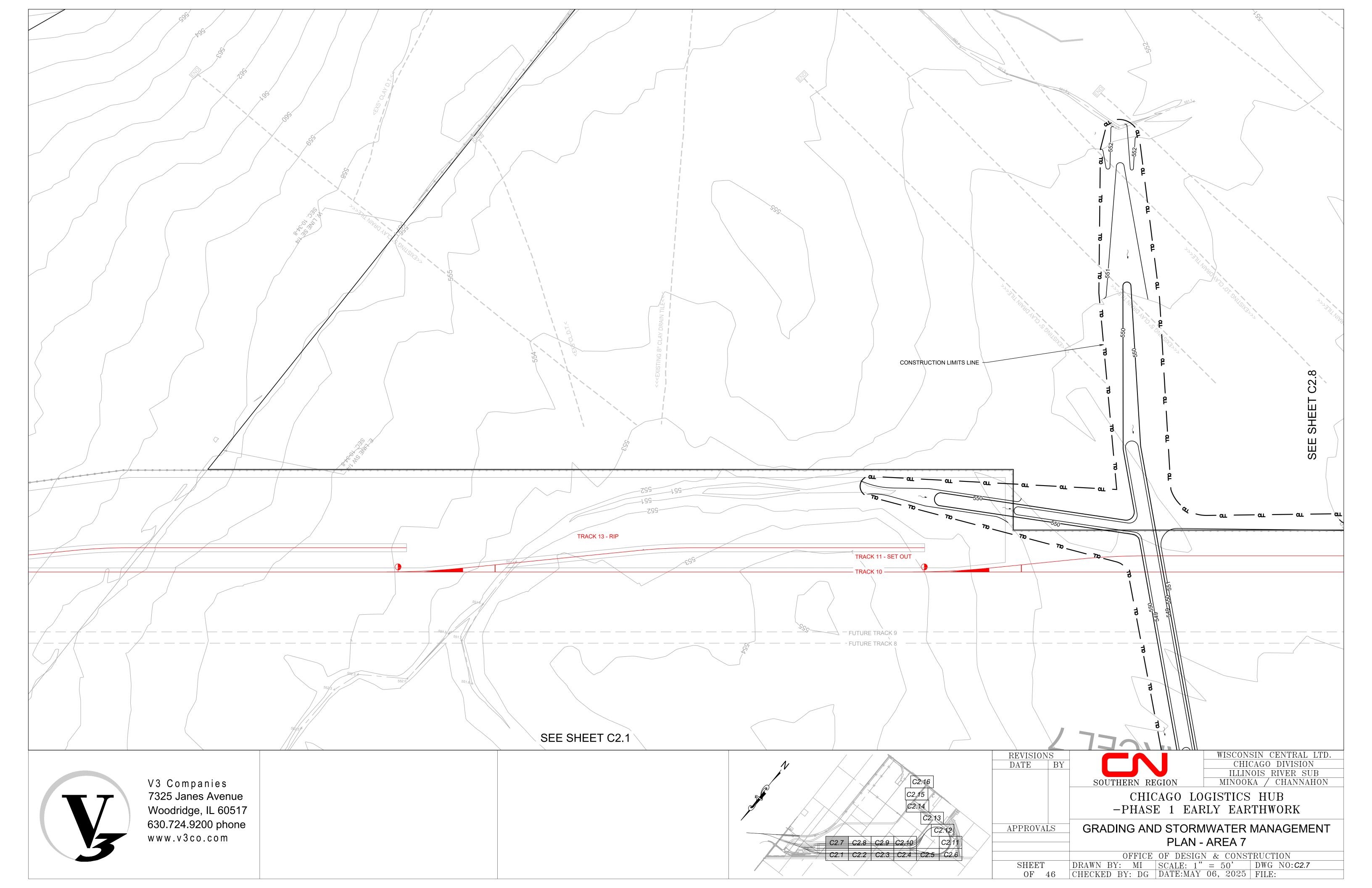


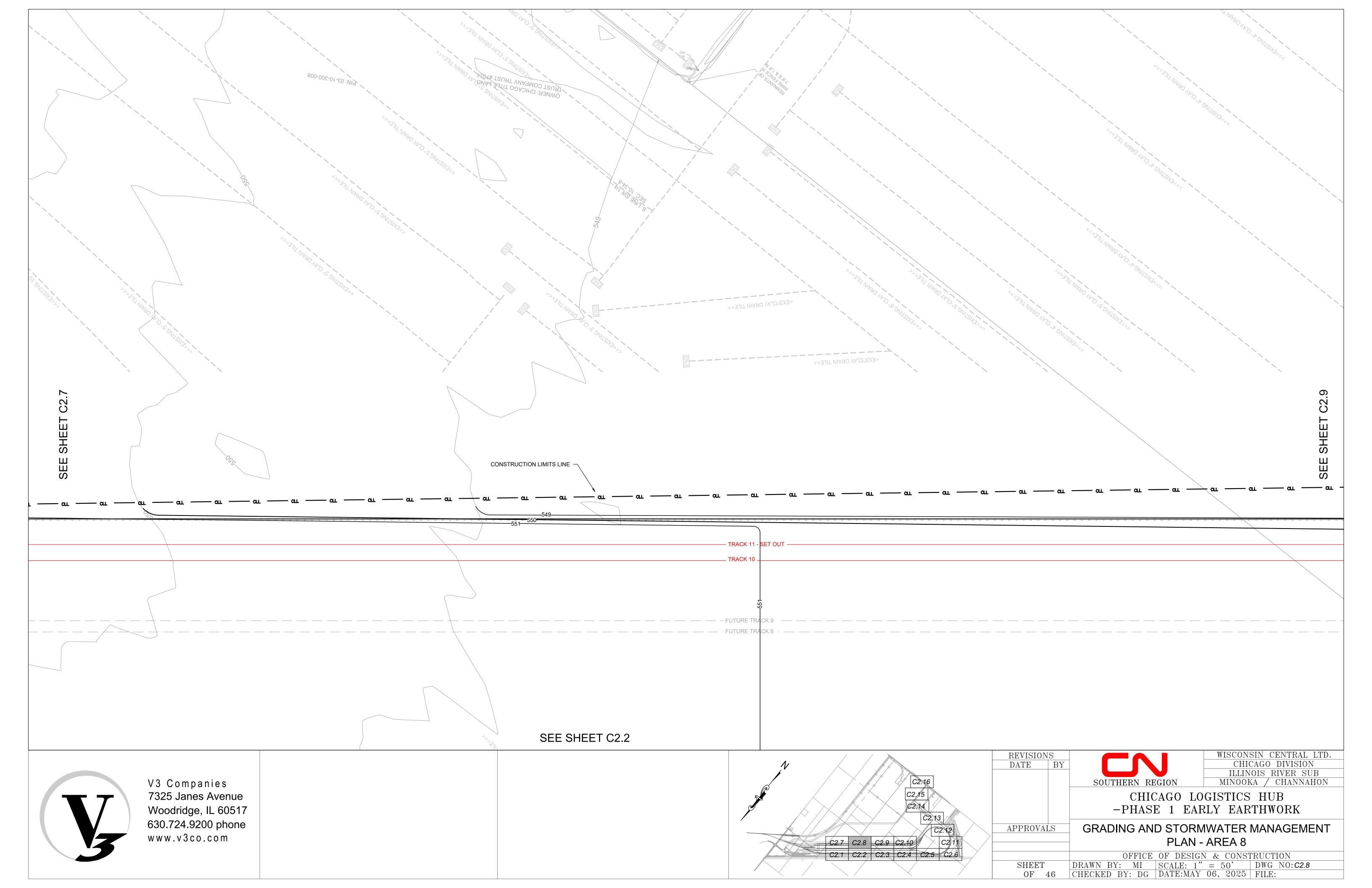


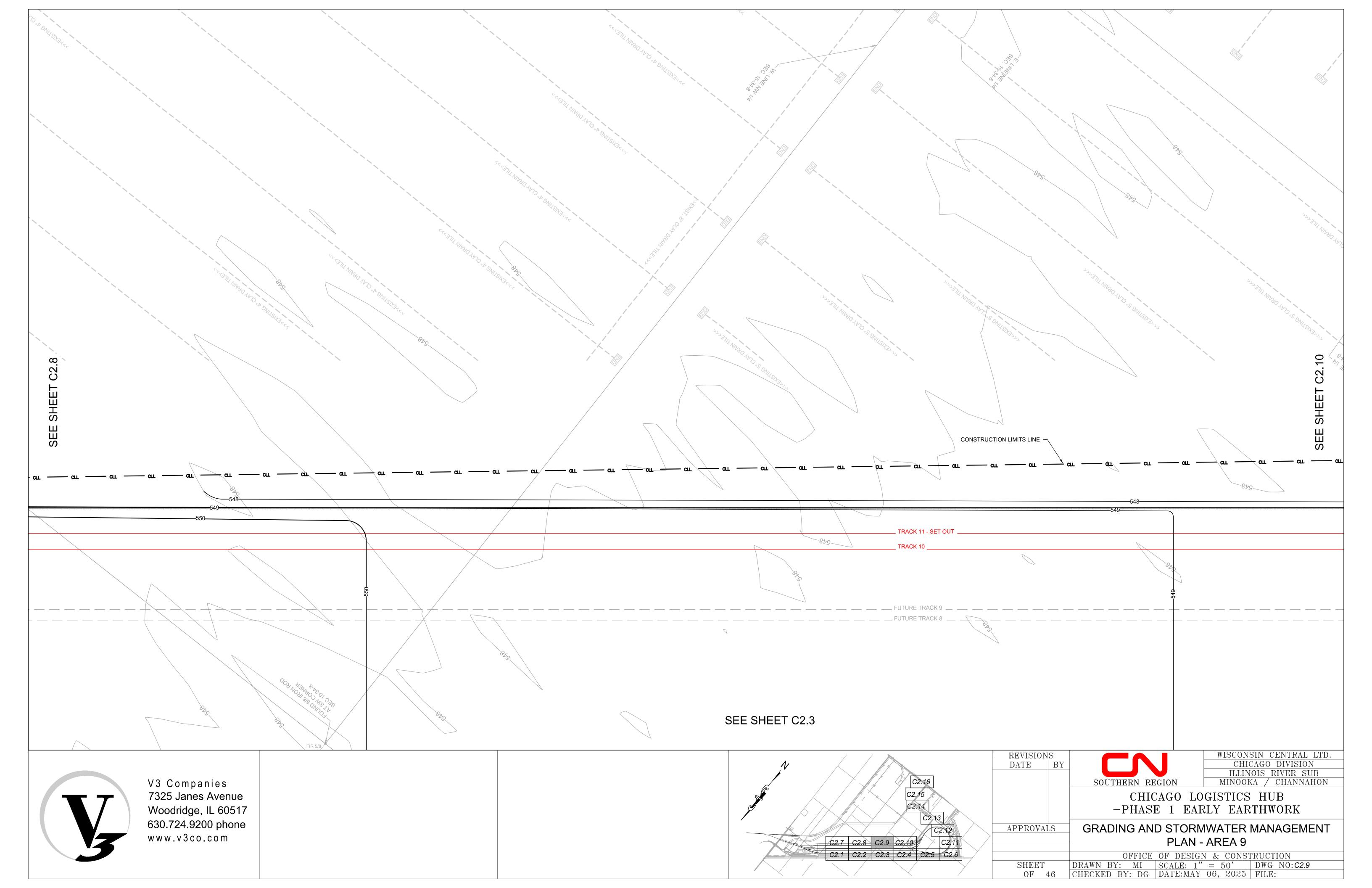


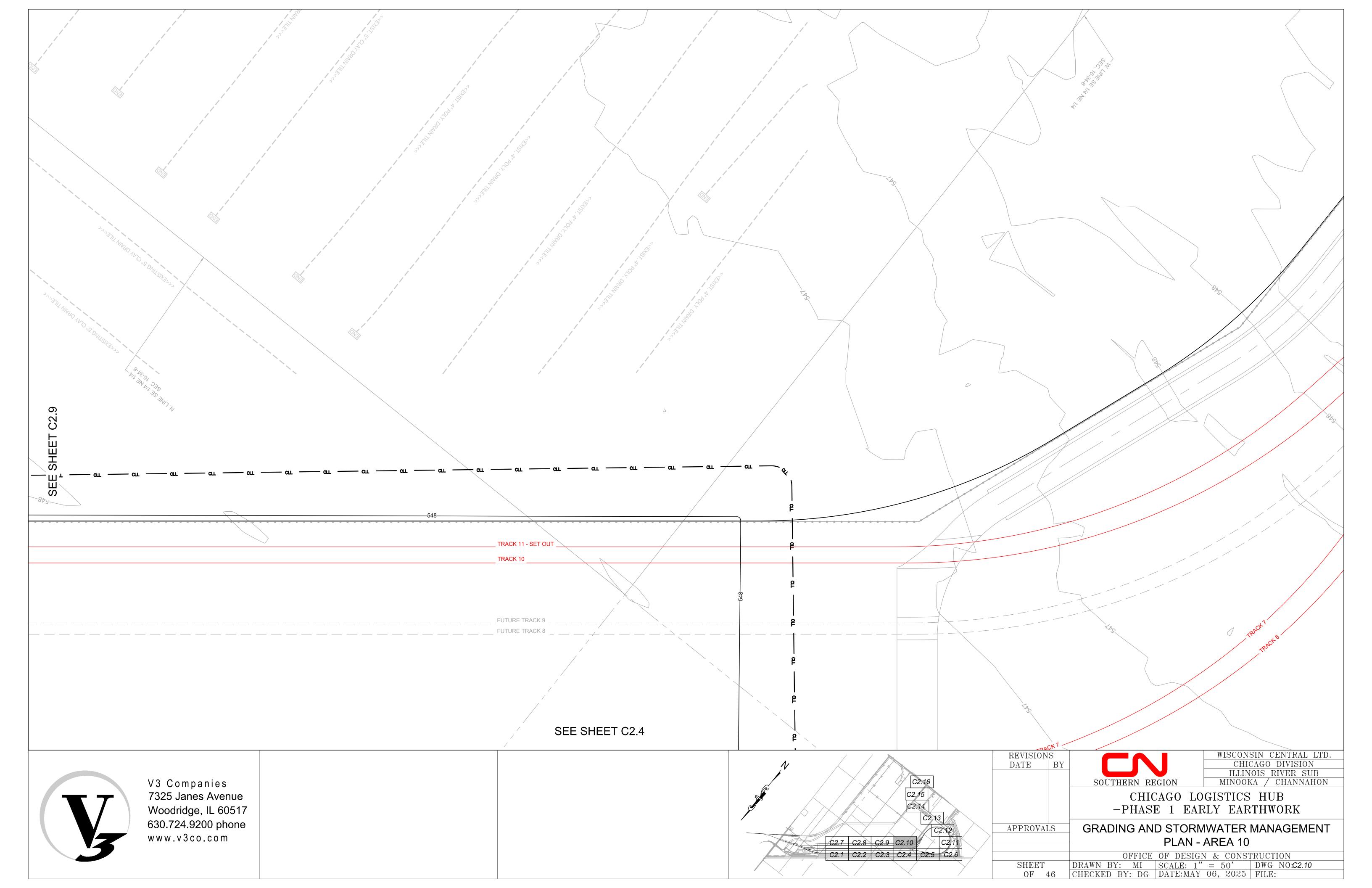


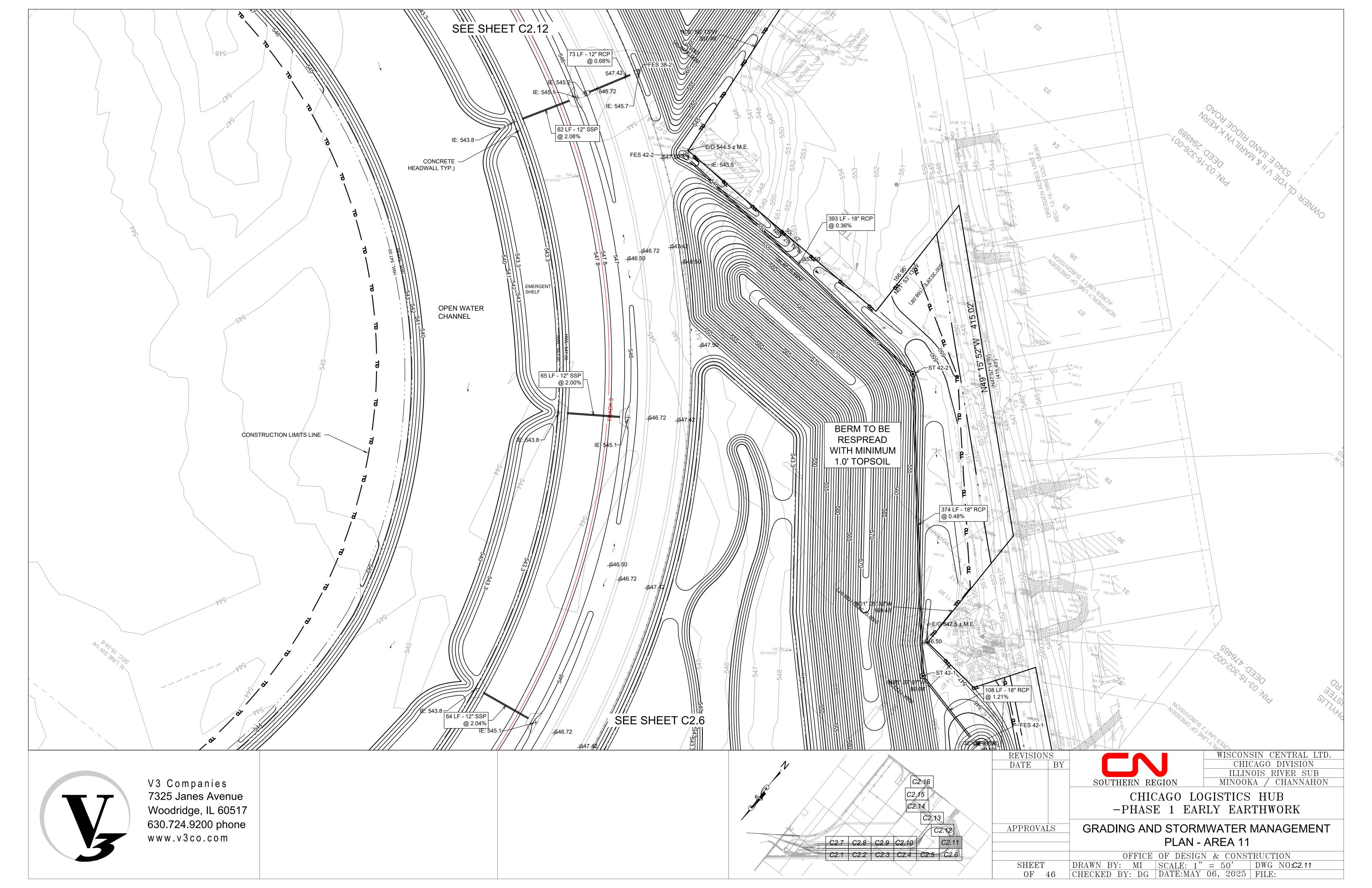


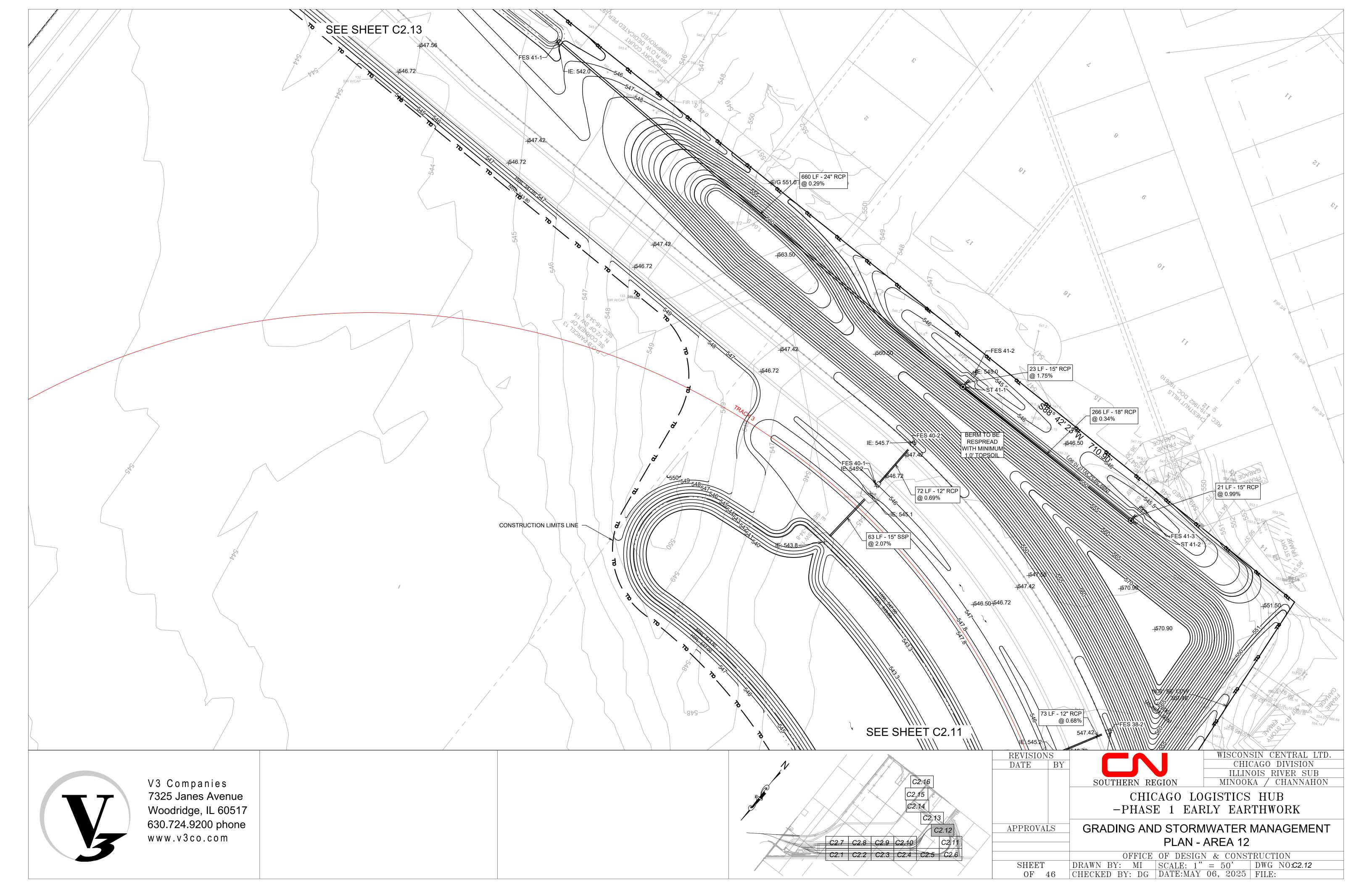


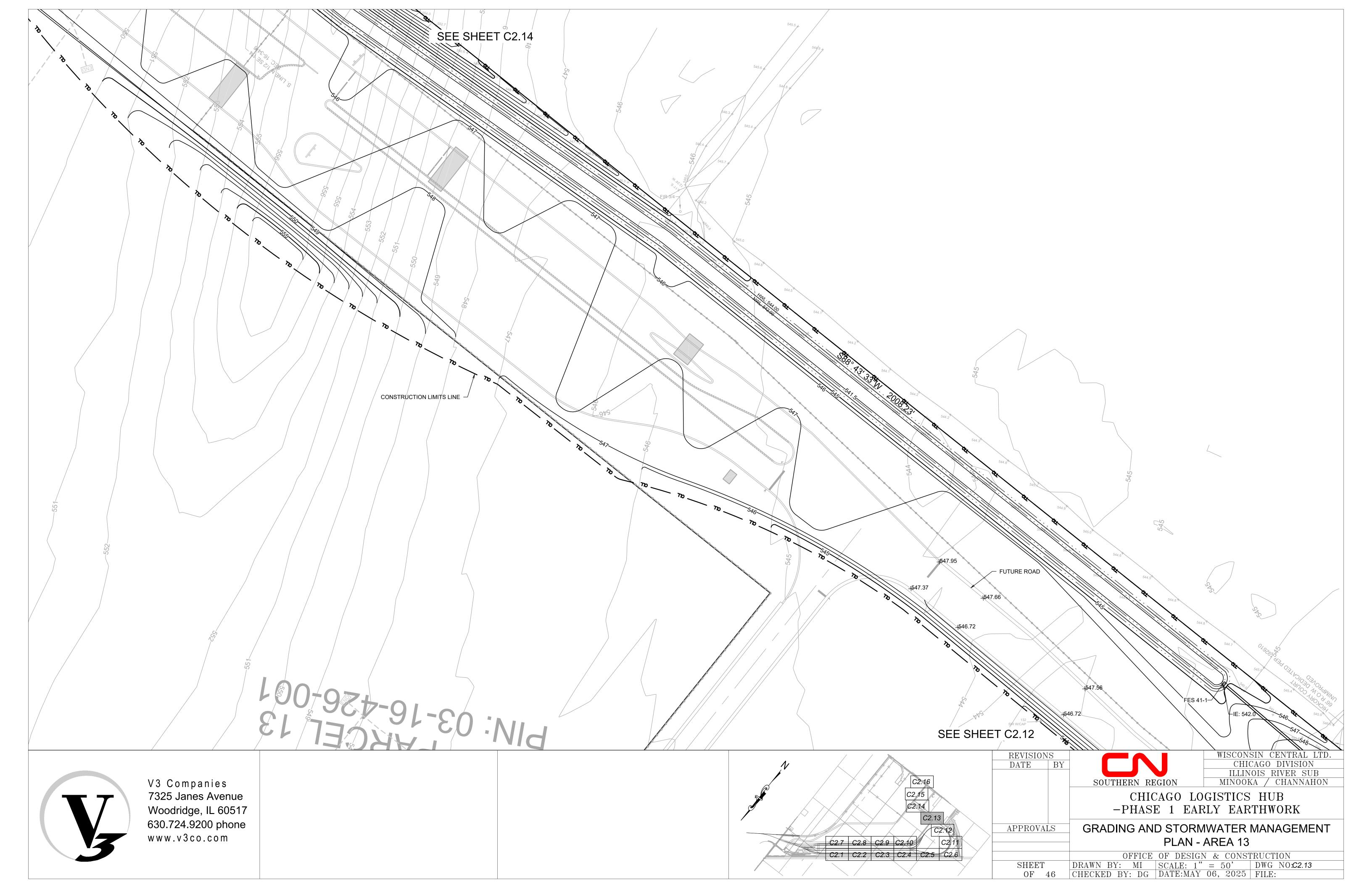


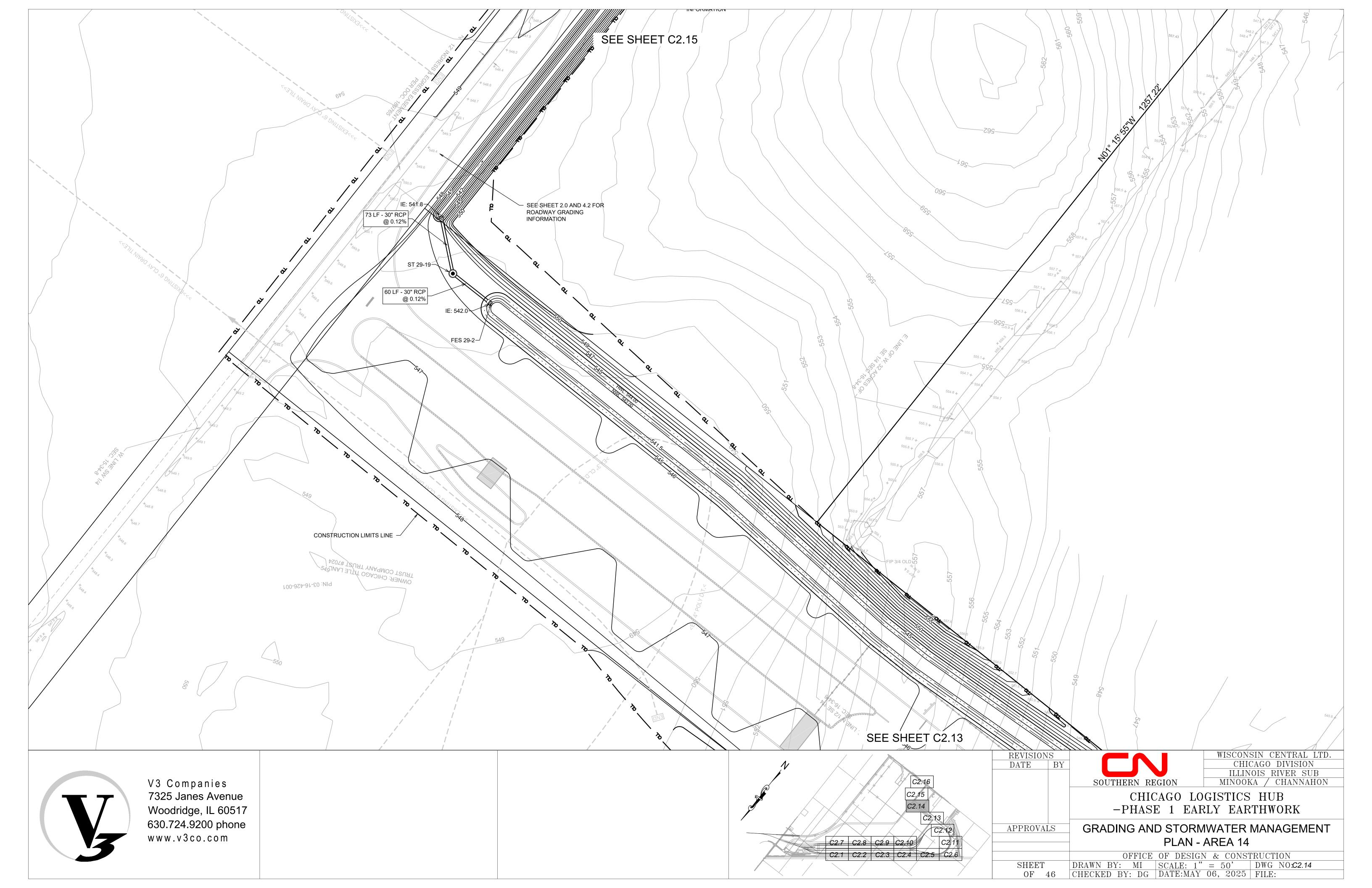


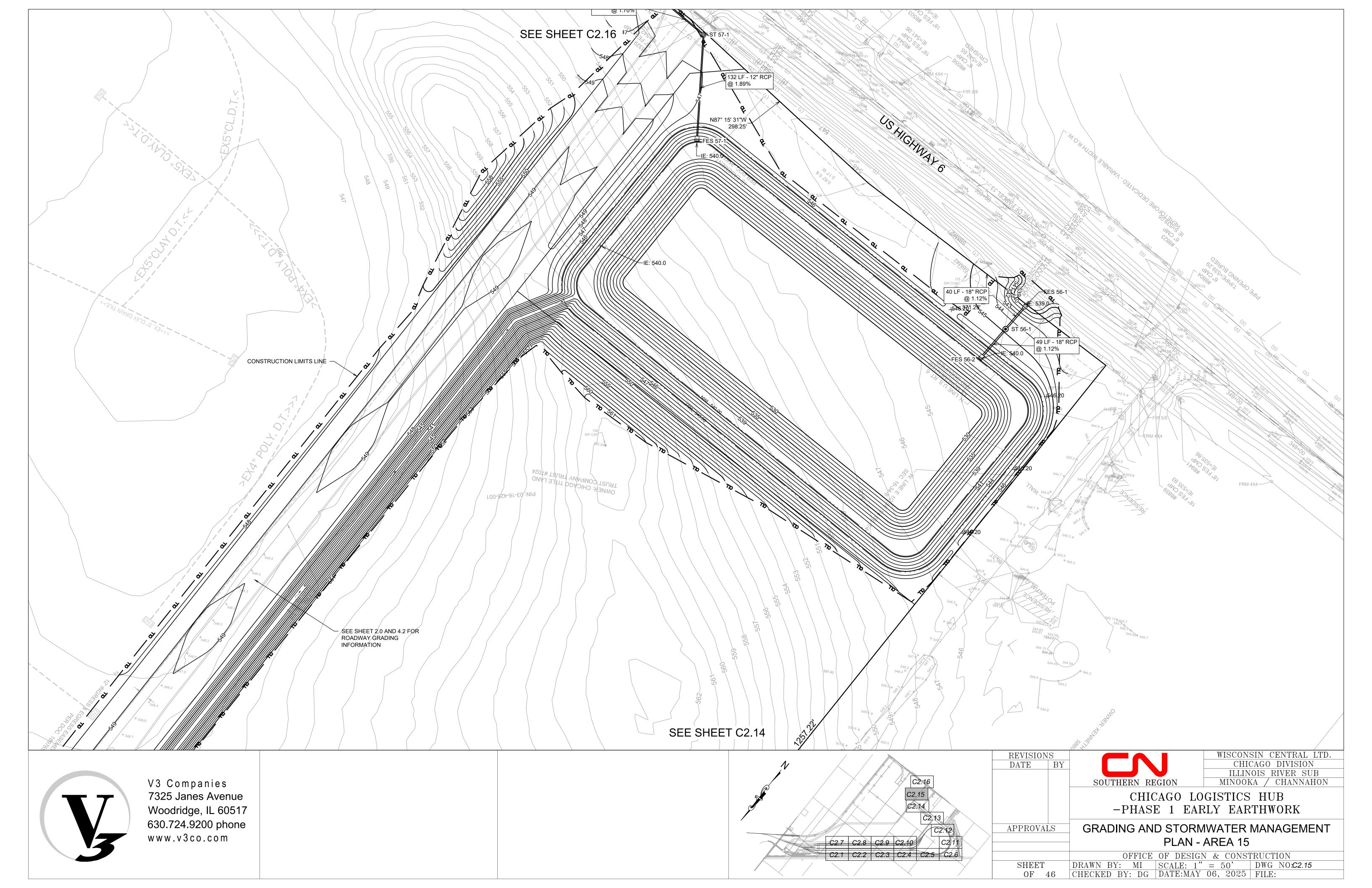


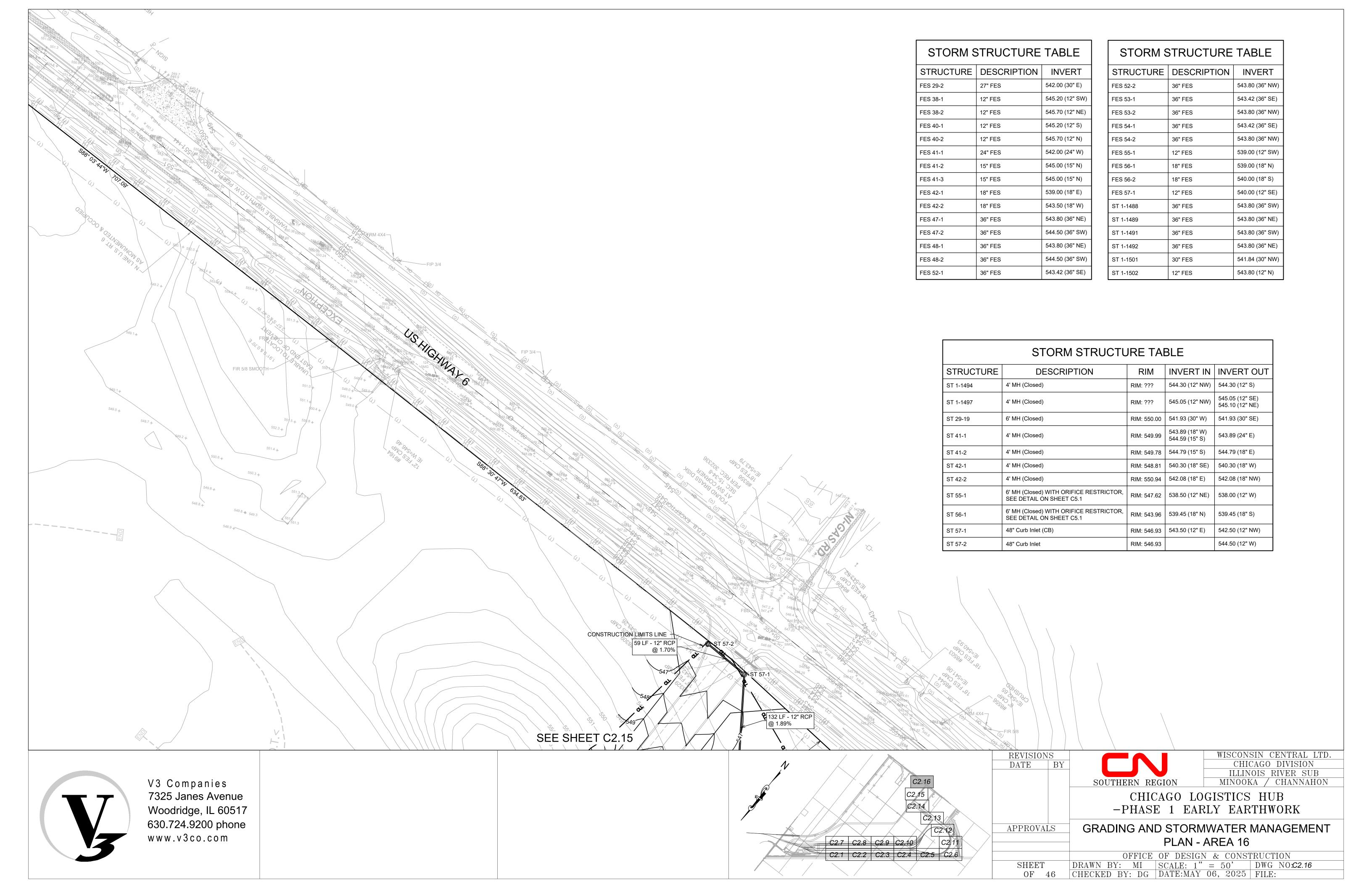


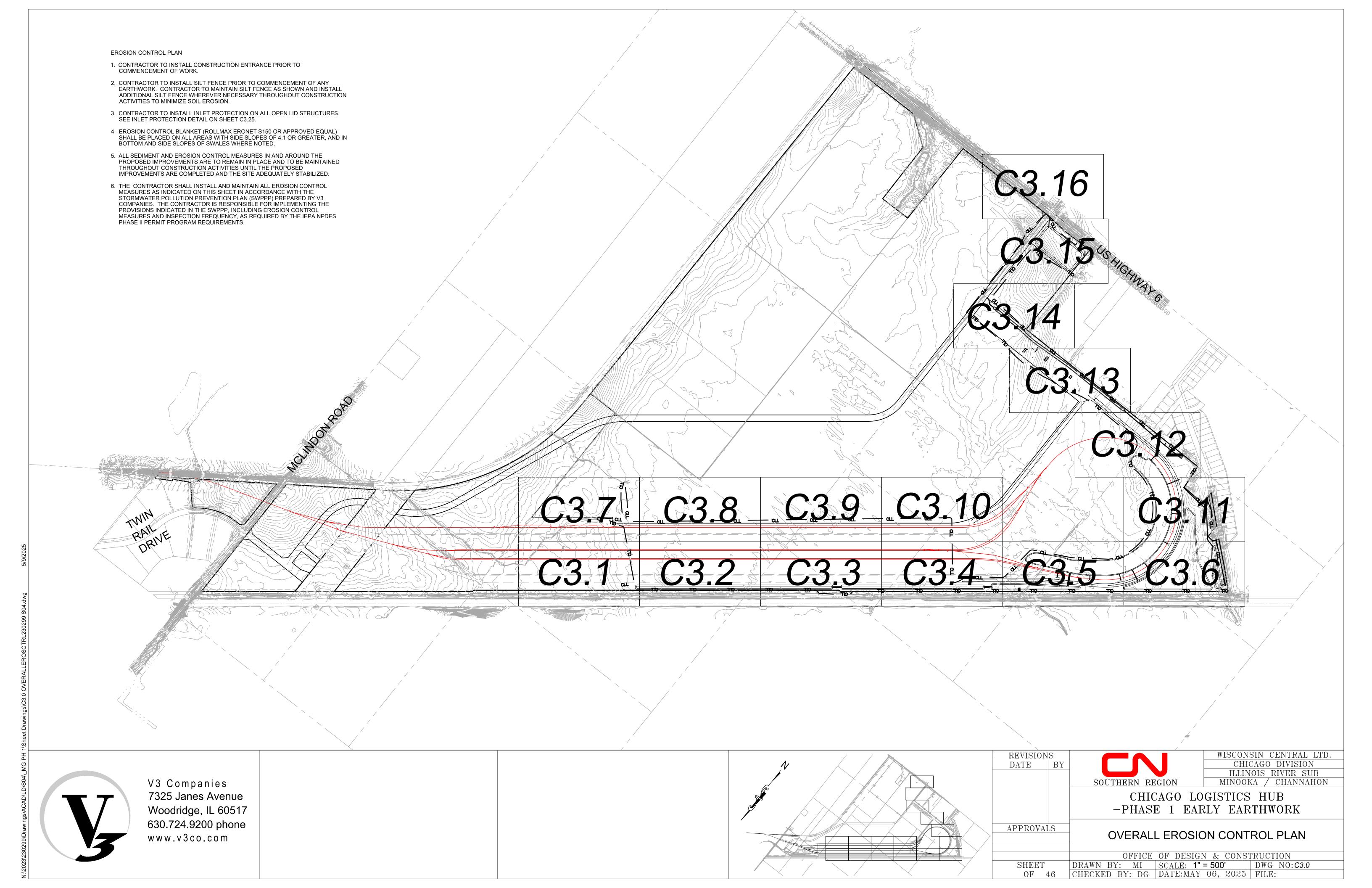


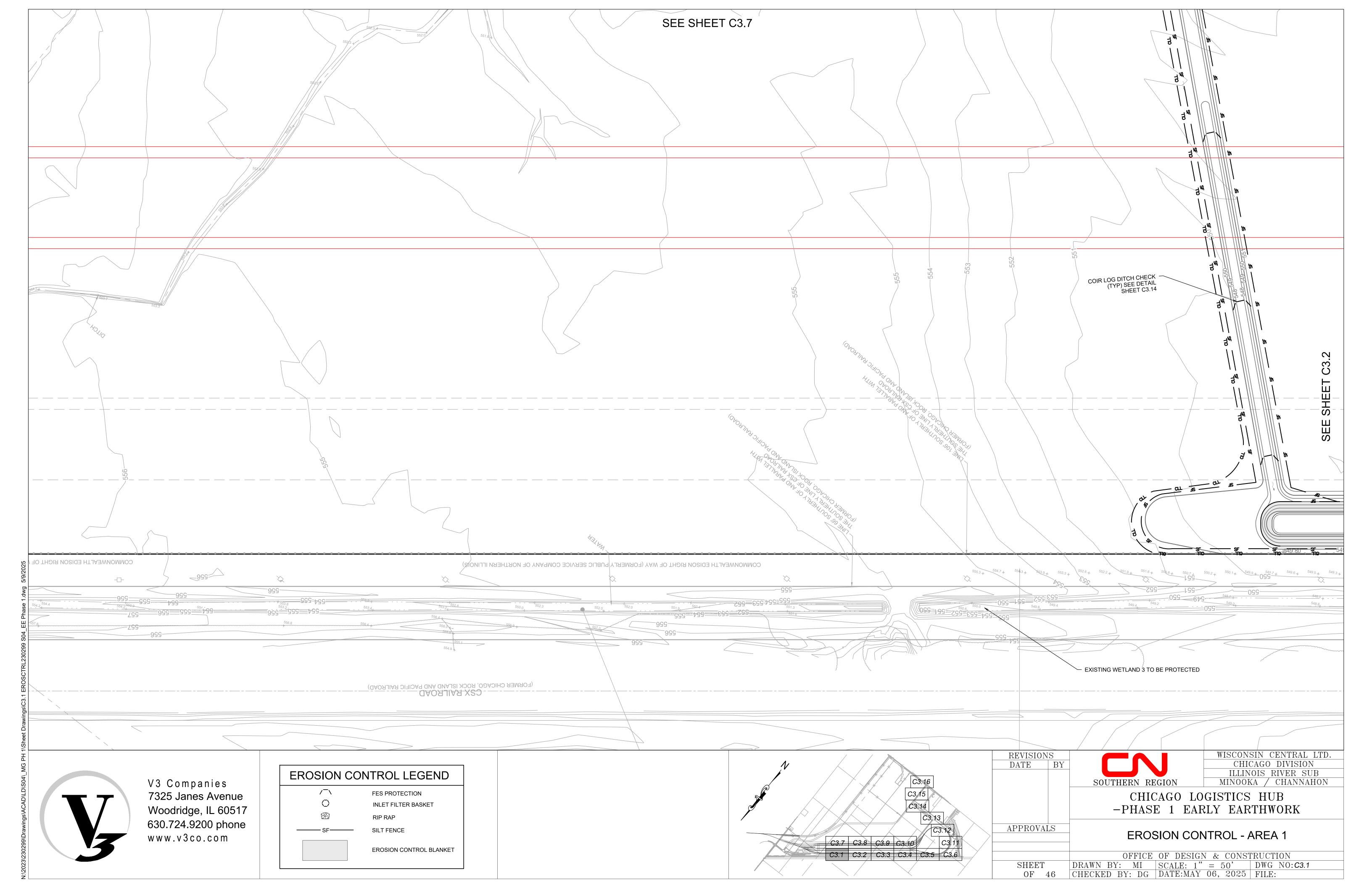


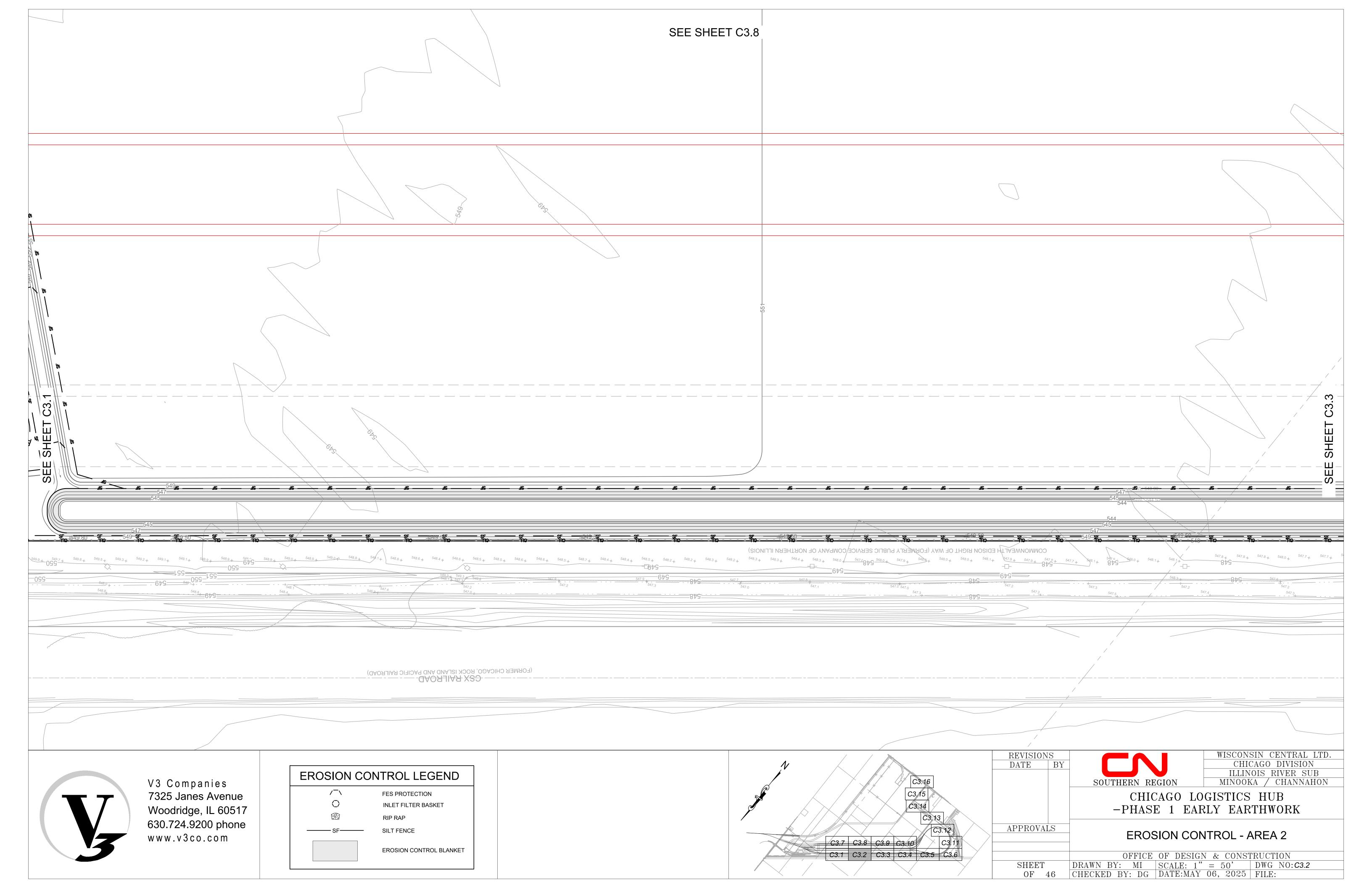


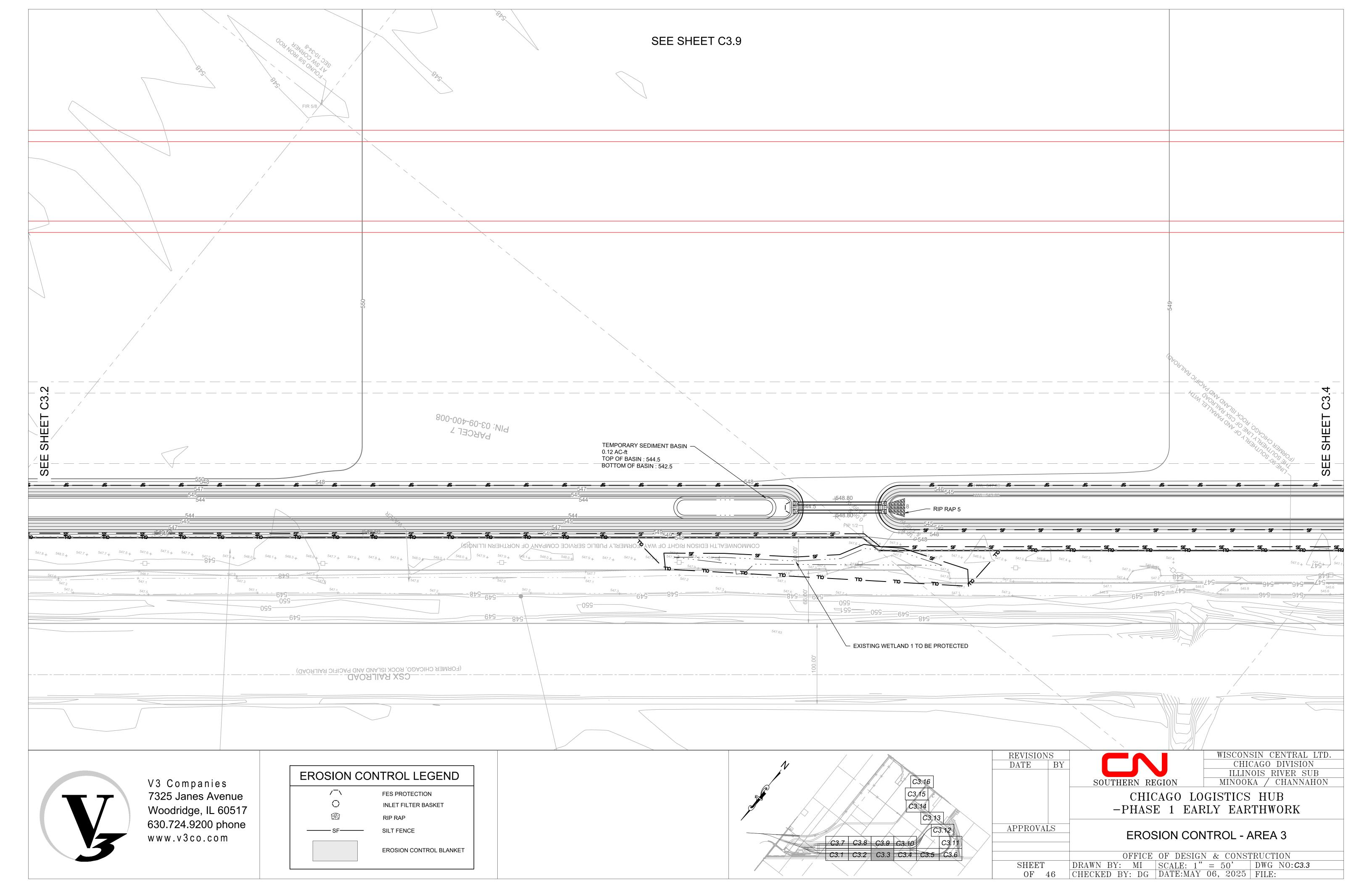


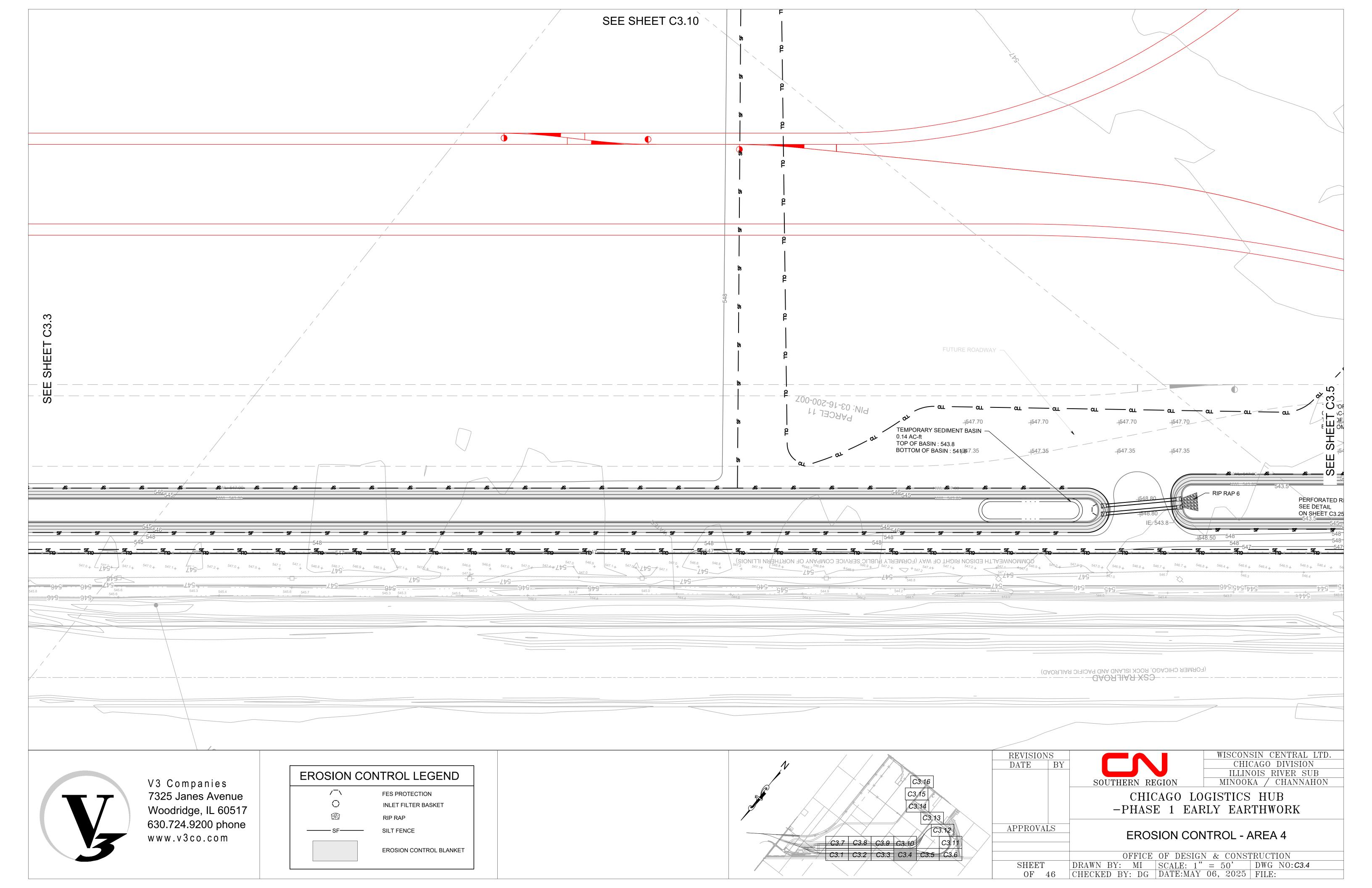


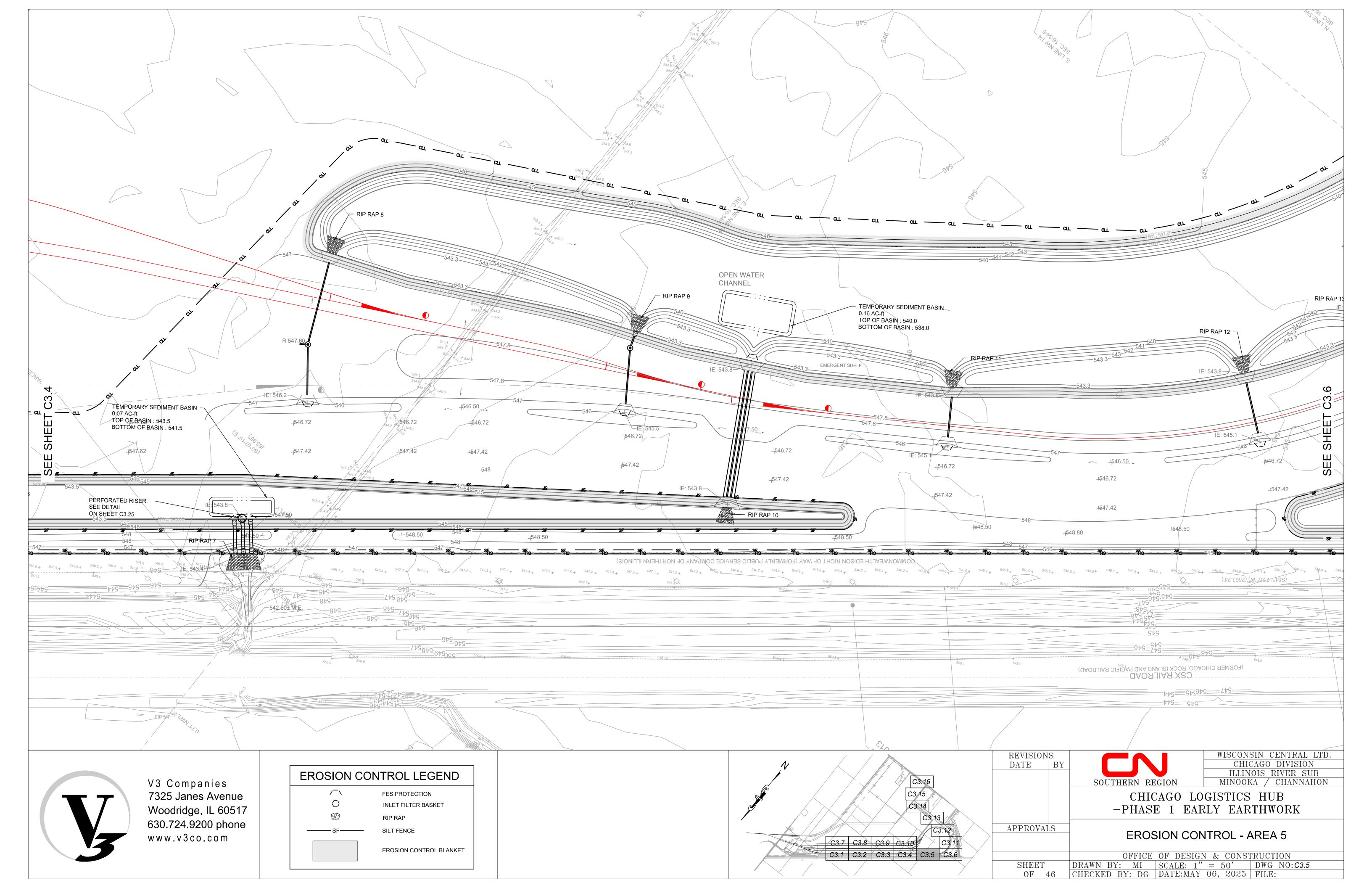


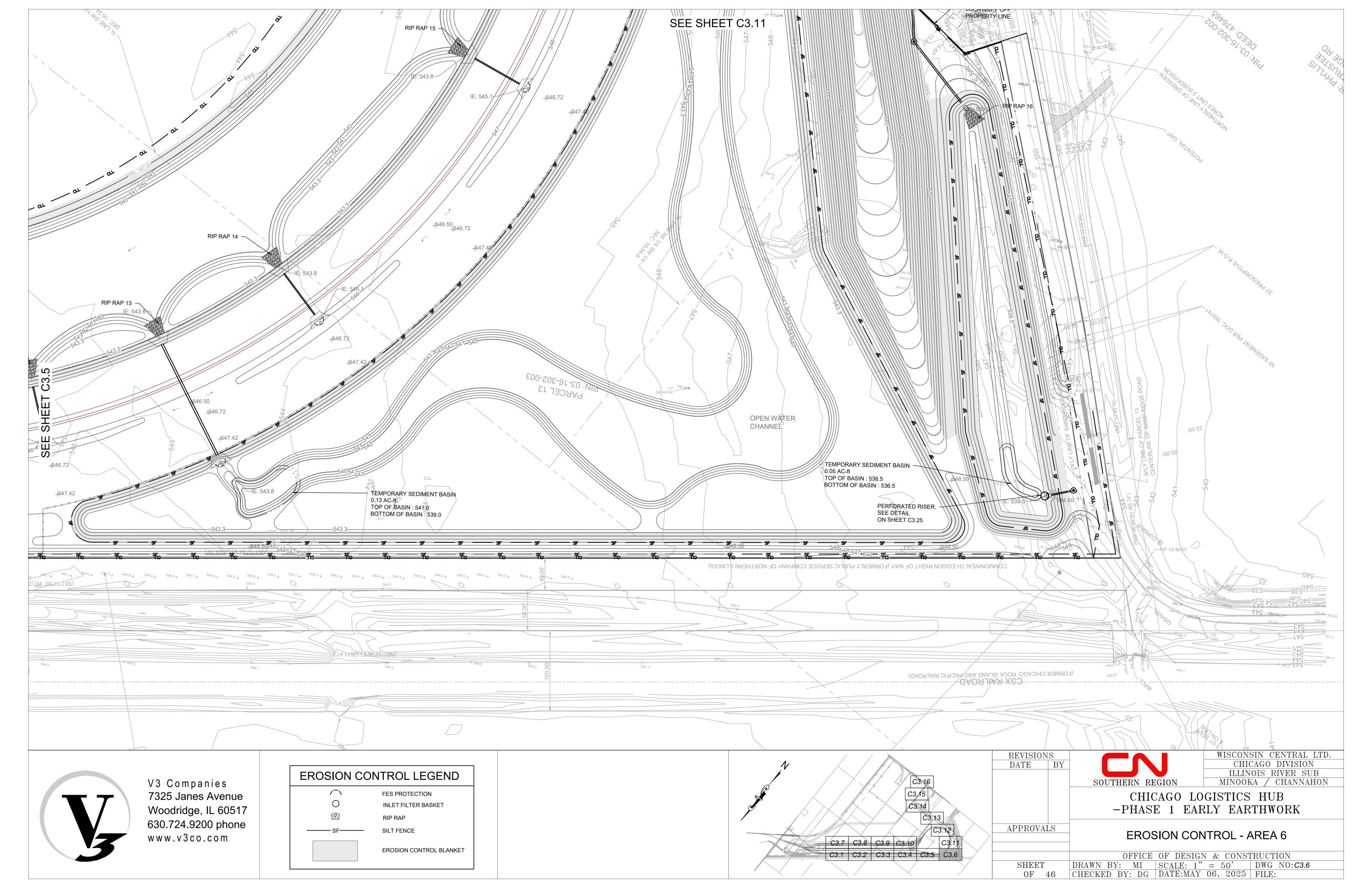


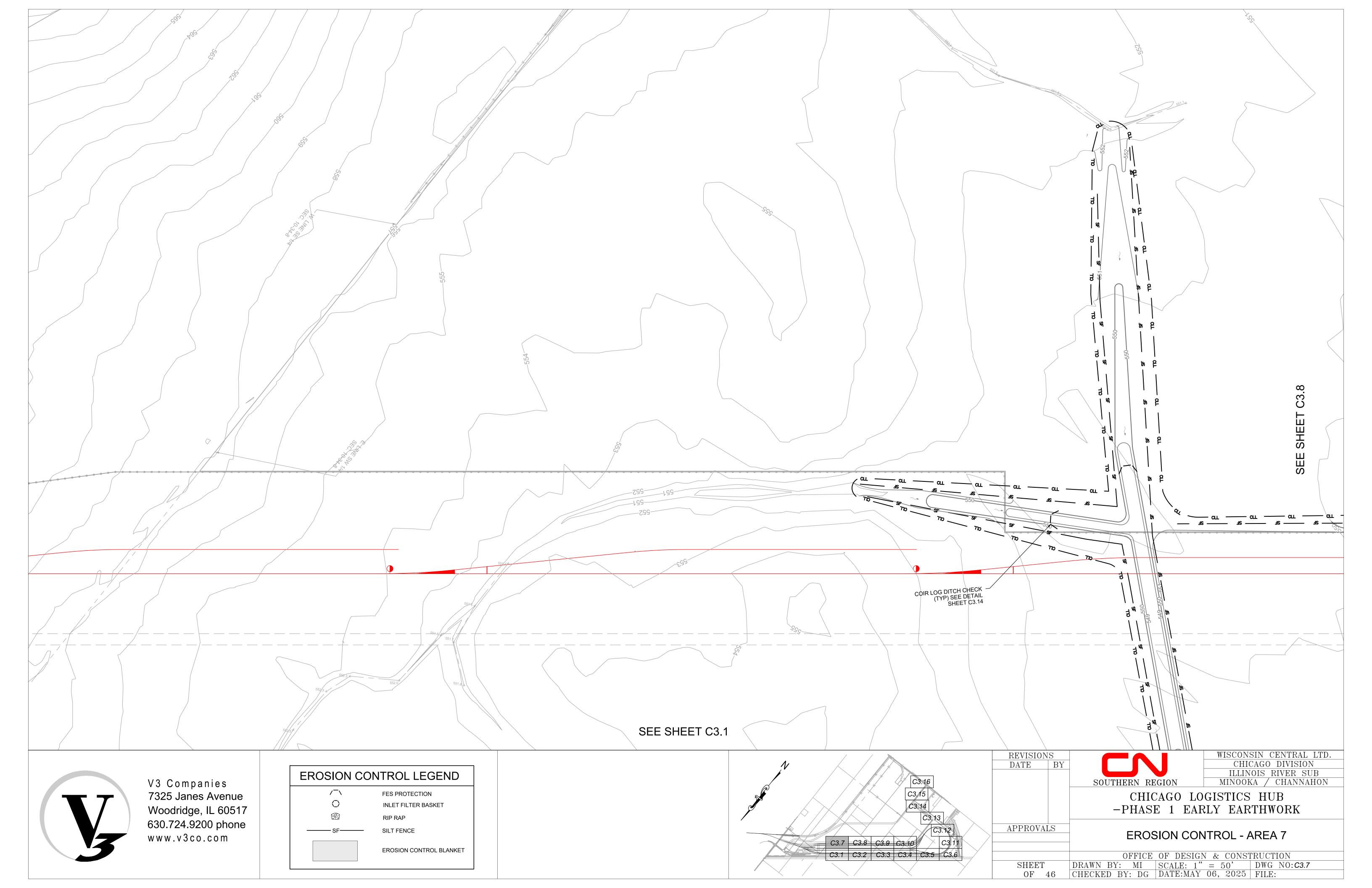


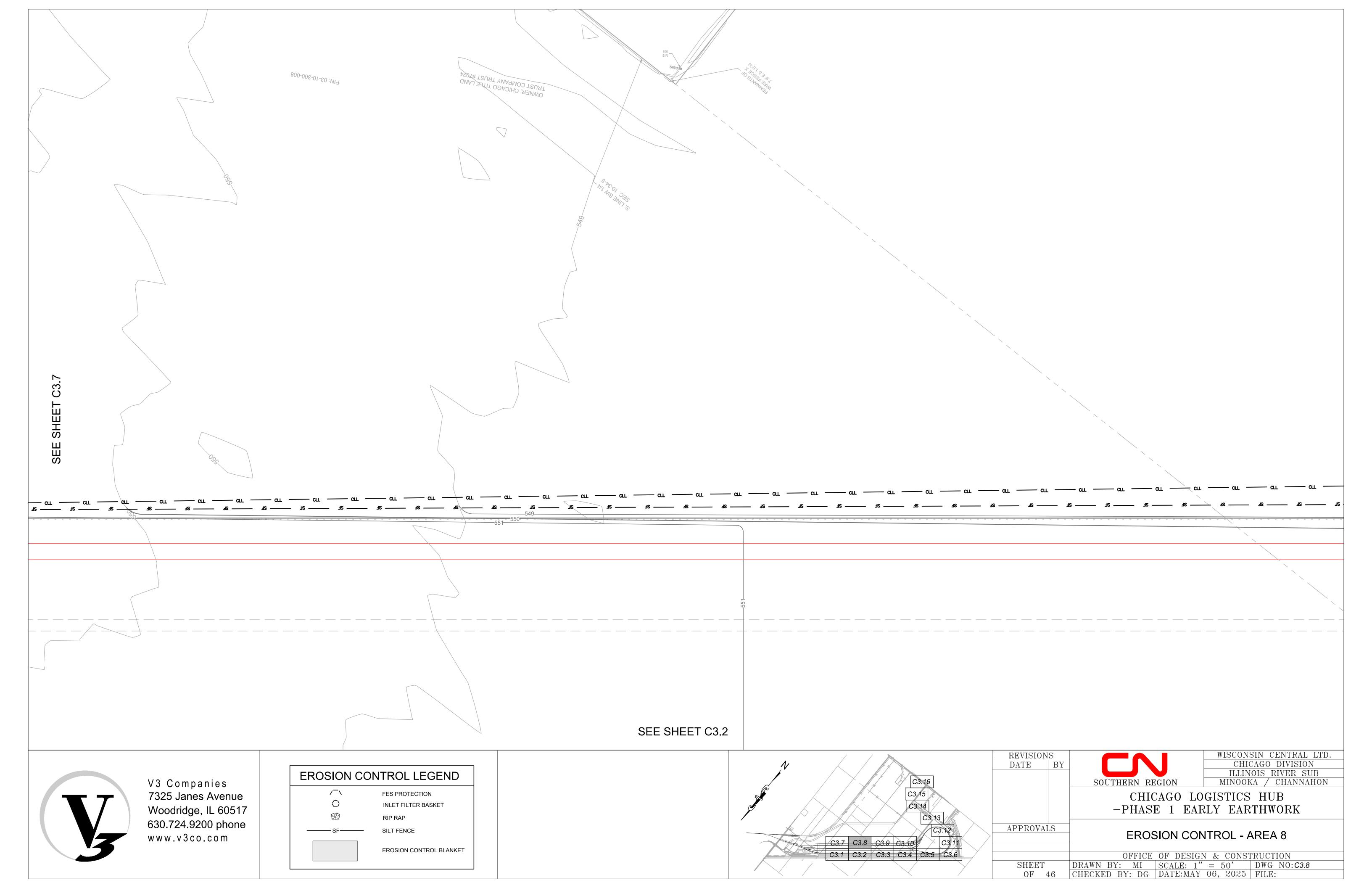


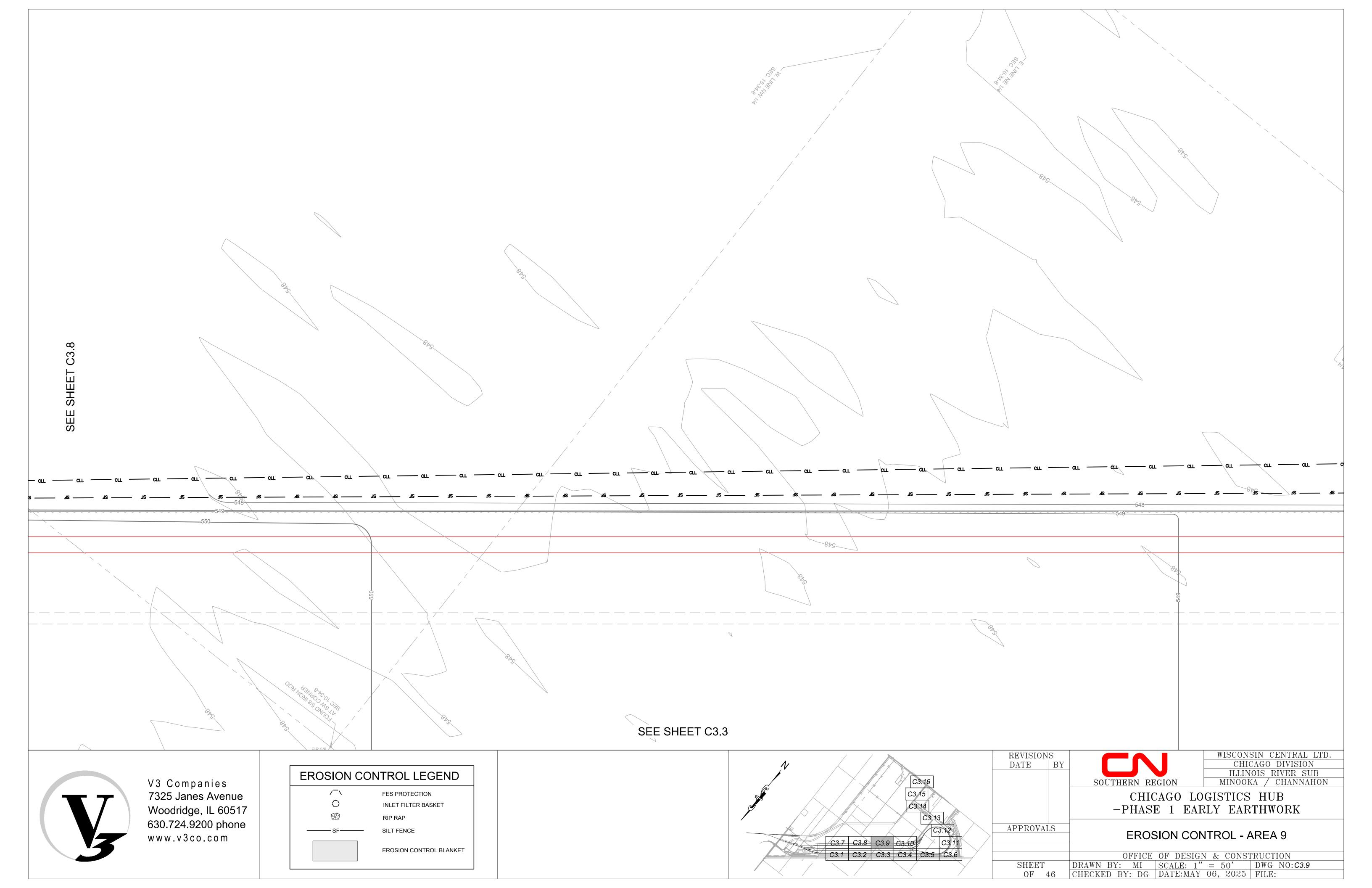


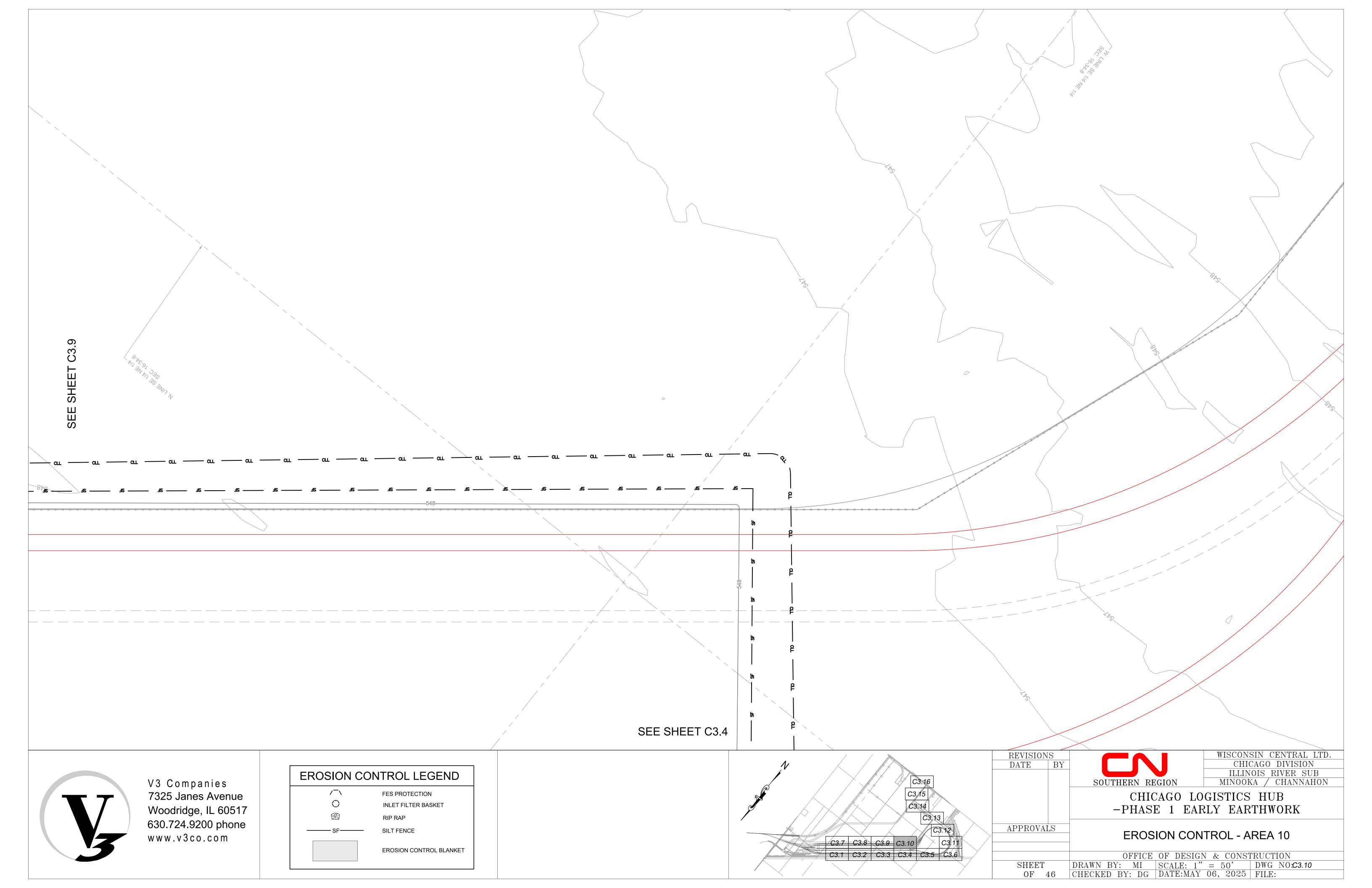


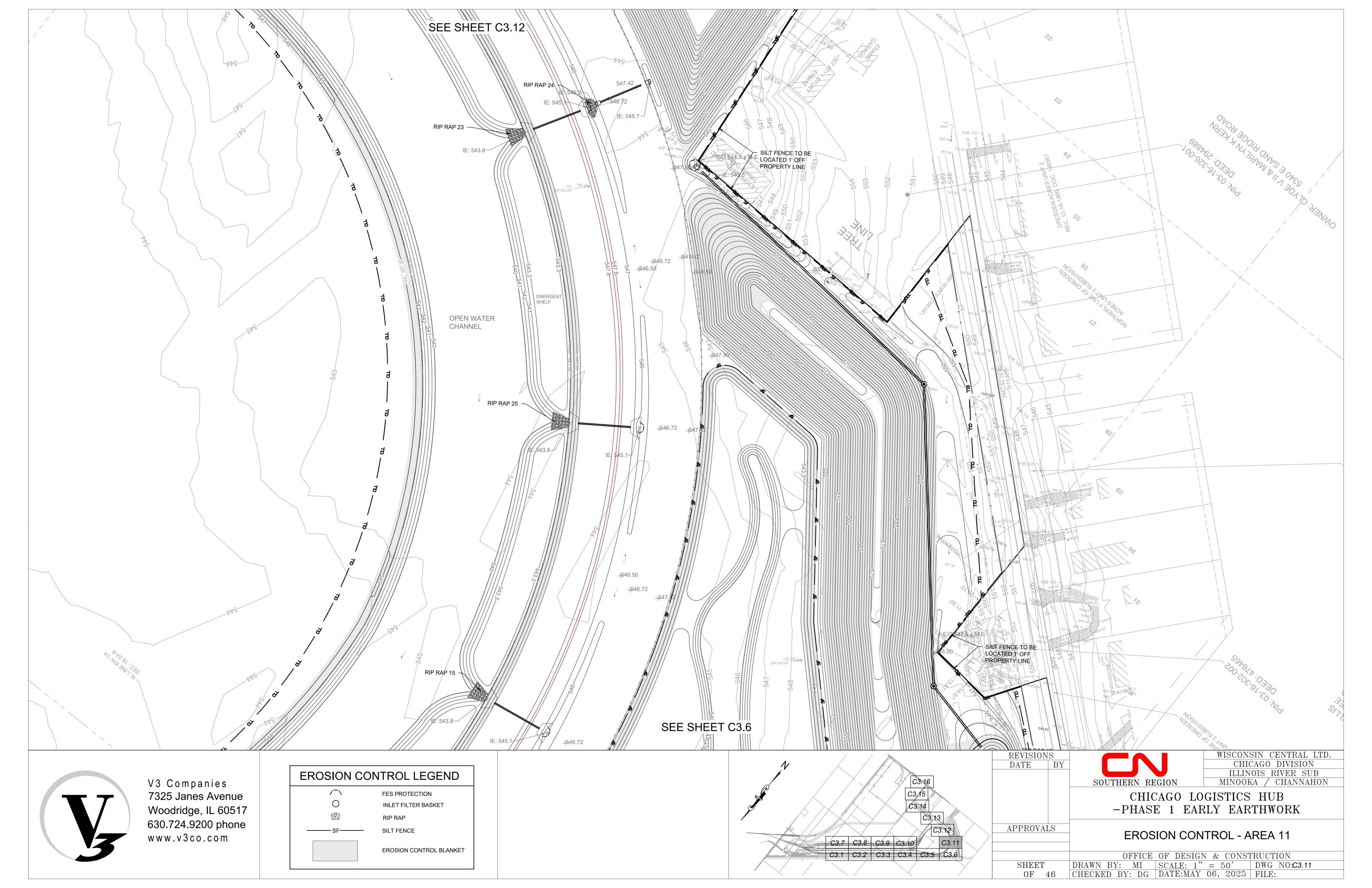


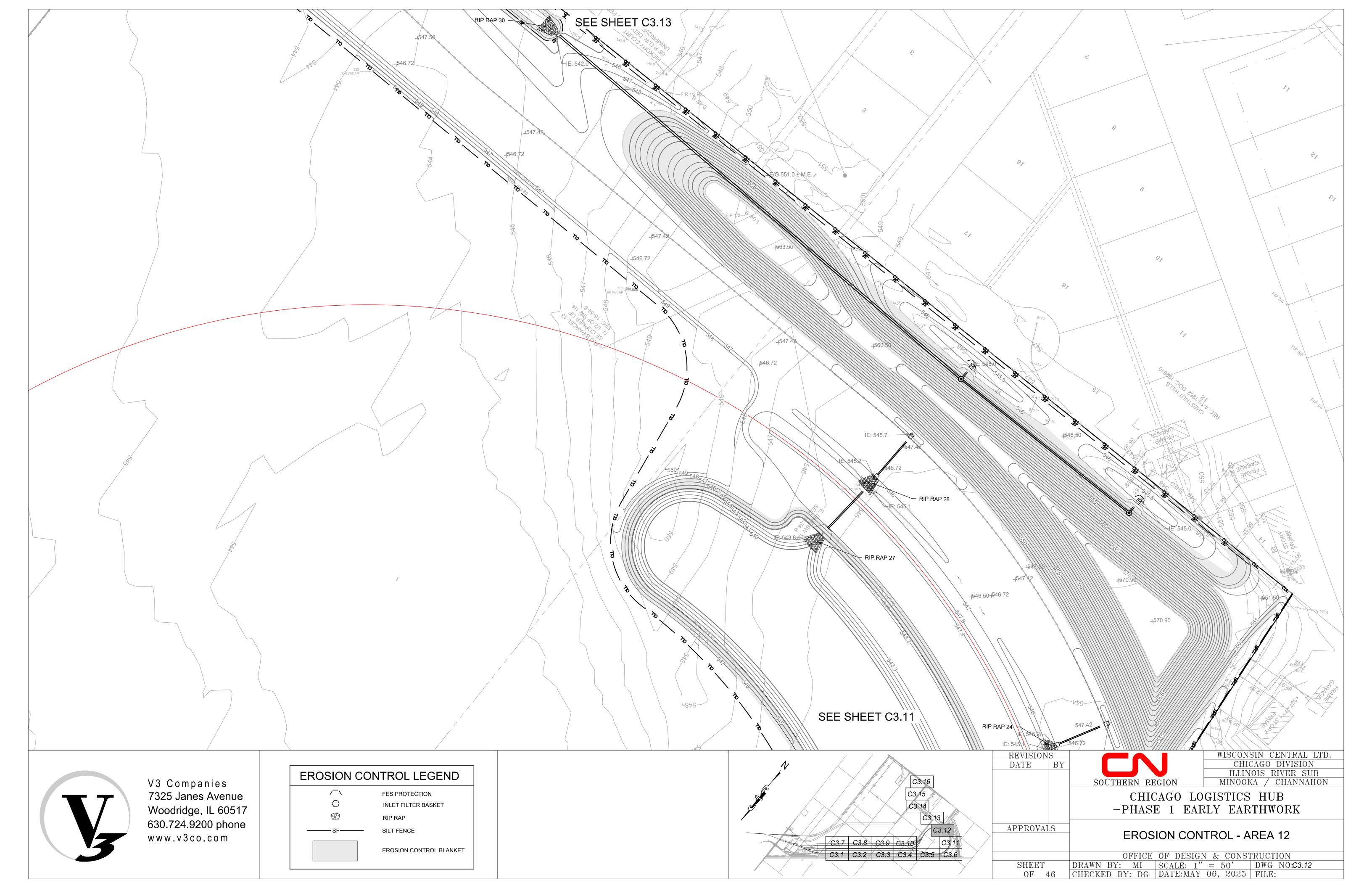


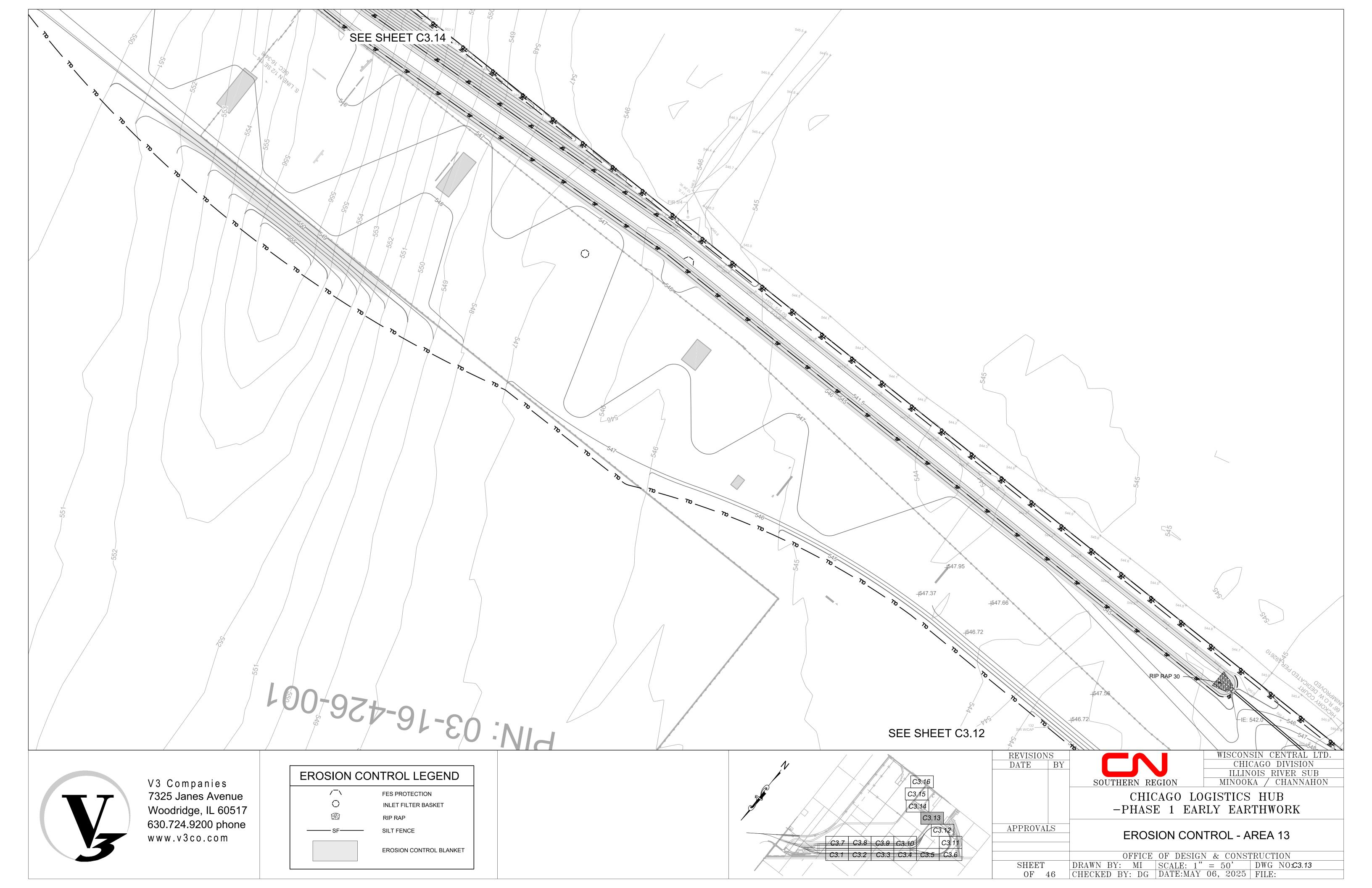


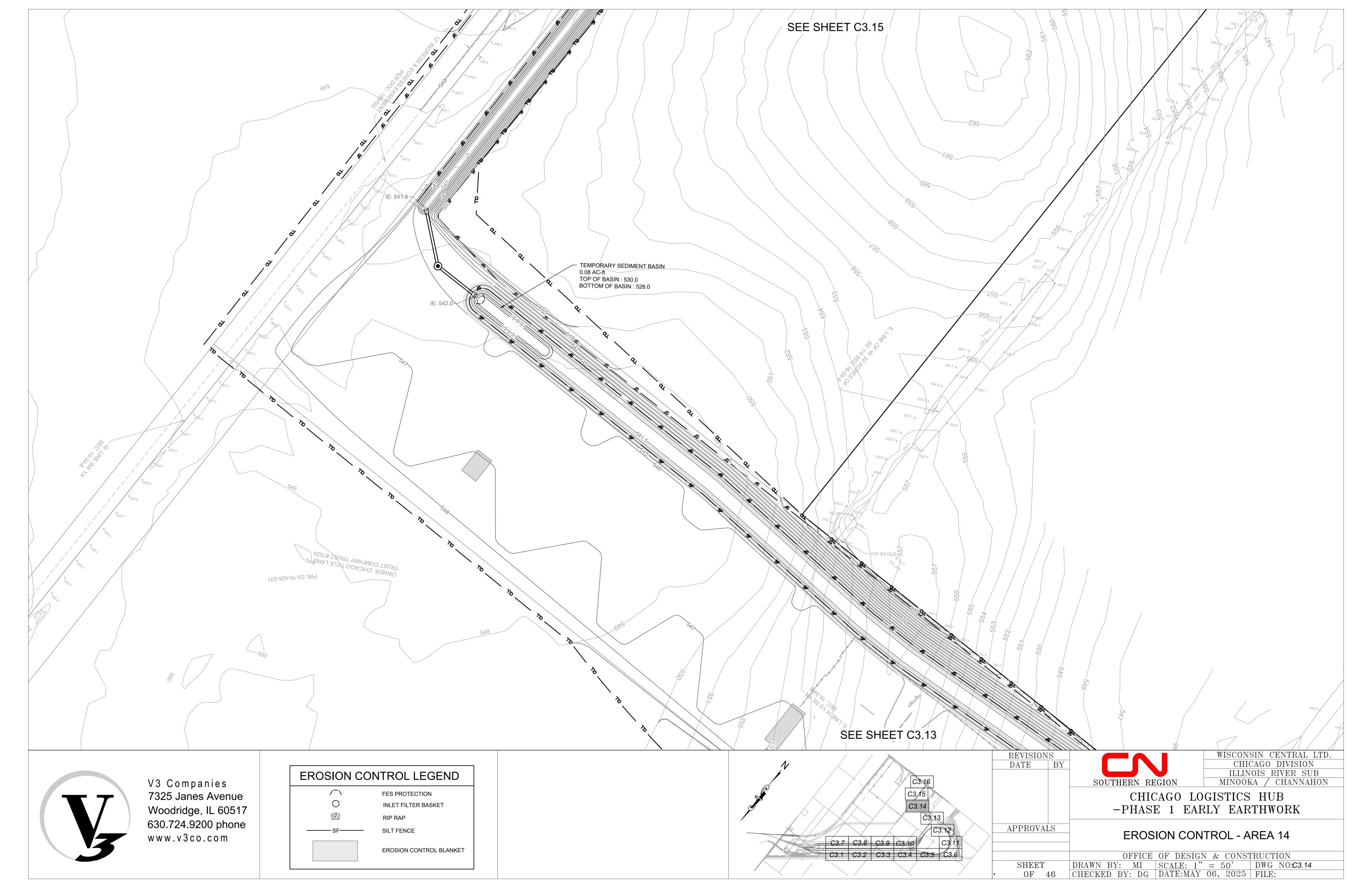


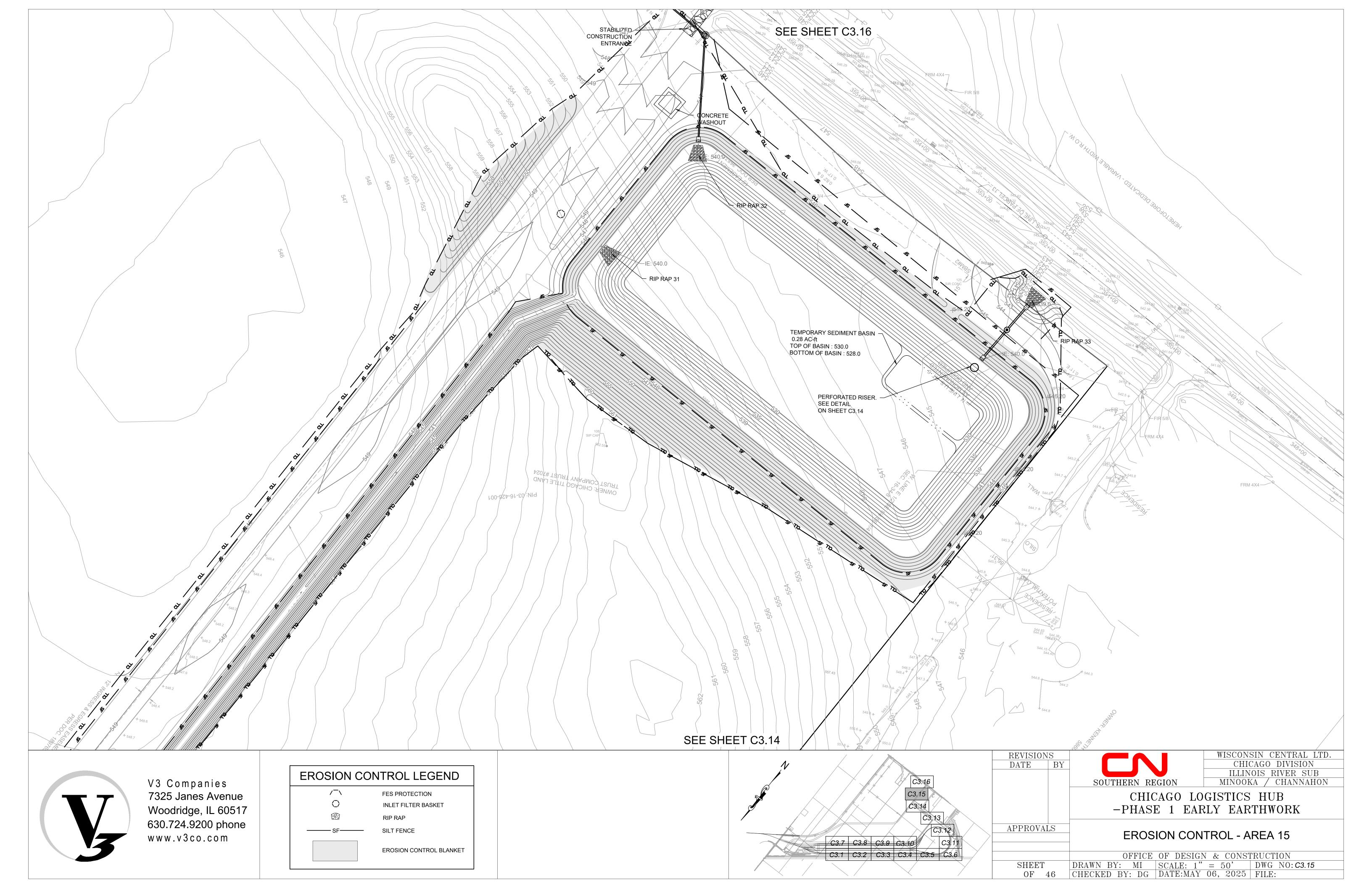


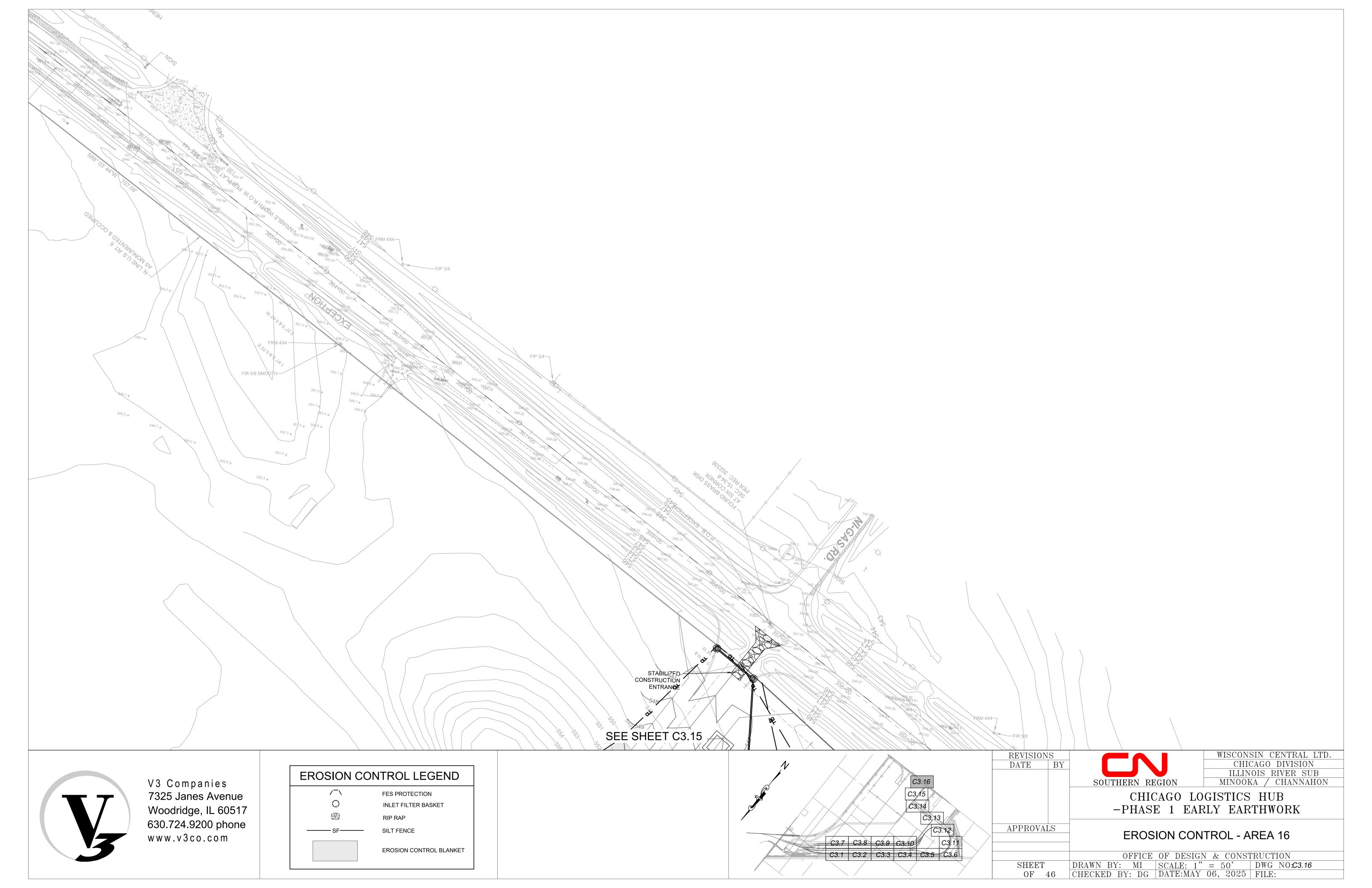


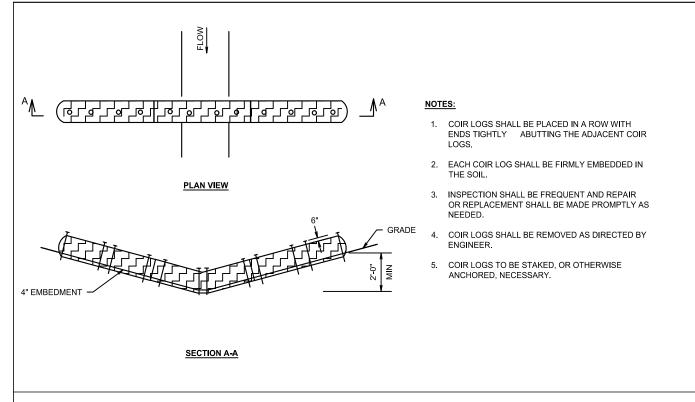




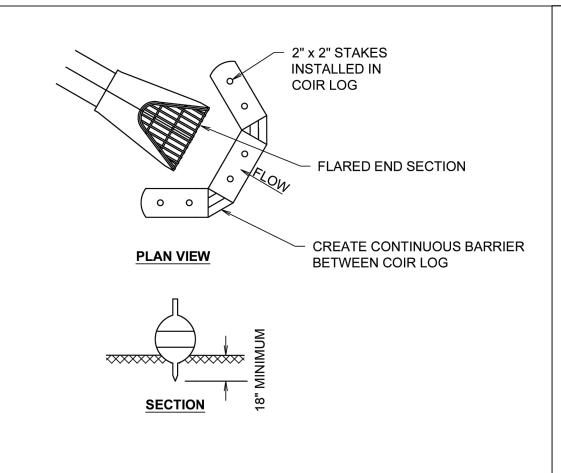








COIR LOG DITCH CHECK



ADJACENT CORES.

- COIR LOGS TO BE STAKED, OR OTHERWISE ANCHORED, IF NECESSARY. 2. COIR LOGS SHALL BE PLACED WITH ENDS TIGHTLY ABUTTING THE
- 3. EACH COIR LOG SHALL BE FIRMLY EMBEDDED IN THE SOIL.
- 4. INSPECTION SHALL BE FREQUENT AND AFTER RAIN EVENTS, REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - COIR LOG / SEDIMENT TRAP

5. COIR LOGS SHALL BE REMOVED AS DIRECTED BY ENGINEER.

OVERLAP BLANKETS SIDE BY BURY UPSLOPE END SIDE USING A 4" OVERLAP OF BLANKET IN WITH UPSLOPE BLANKET LAID TRENCH 6" WIDE BY OVER DOWNSLOPE BLANKET 6" DEEP OVERLAP END OF UPSLOPE BLANKET 4" OVER DOWNSLOPE **BLANKET AND SECURE** WITH STAPLES BURY TOE OF BLANKET IN TRENCH 6" WIDE BY 6" DEEP DETAIL 1 DETAIL 3

Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 stapels with non-stiched blanket per 100 s.y. of material. 2. Staple or push pin lengths shall be selected based on soil type and conditions.

EROSION CONTROL BLANKET

INSTALLATION DETAILS

6"-9"

- (minimum staple length is 6"). 3. Erosion control material shall be placed in contact with the soil over a prepared
- 4. All anchor slots shall be stapled at approximately 12" intervals.

6"-9"

No Well-defined Channel **GEOTEXTILI** SECTION A-A

Pipe Outlet To Flat Area

1. The filter fabric shall meet the requirements in material specifications 592 GEOTEXTILE Table 1 or 2, class I, II, or III

2. The rock riprap shall shall meet the IDOT requirements for the specified gradation. 3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

Fastener – Min. No. 10 Gage Wire

■ Direction Of Flow

Indisturbed Ground Line

4 Per Post Required. (Typ.)

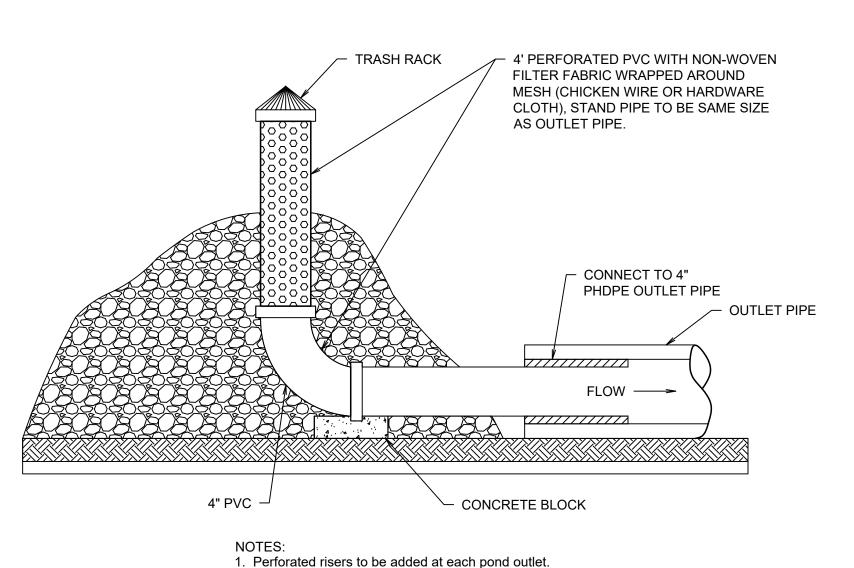
4. See "RIPRAP SIZING" Chart to the right for dimensions.

SILT FENCE PLAN

ELEVATION

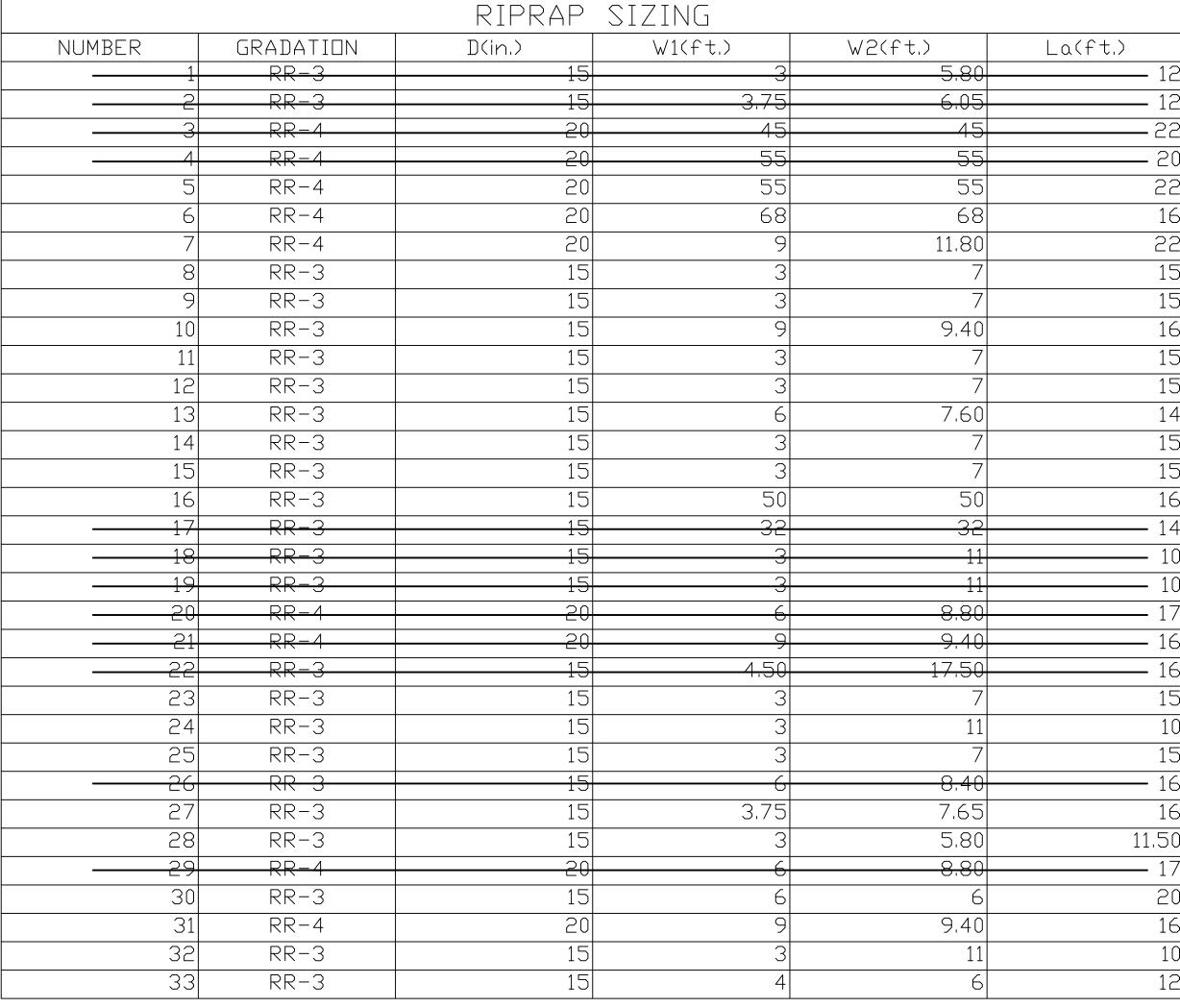
▼Filter Fabric

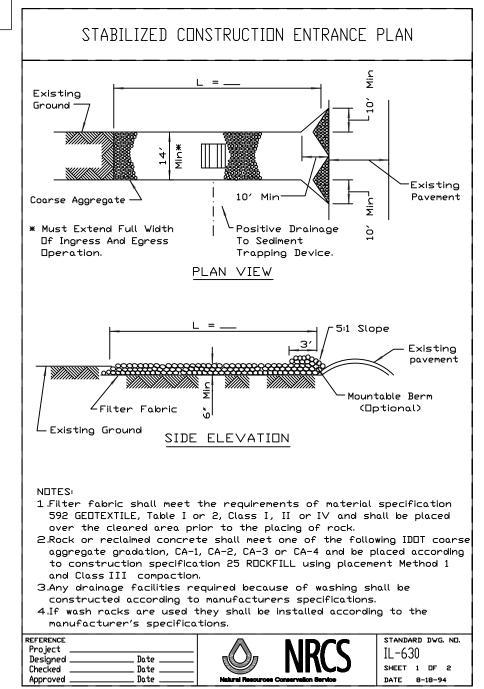
PIPE OUTLET TO FLAT AREA

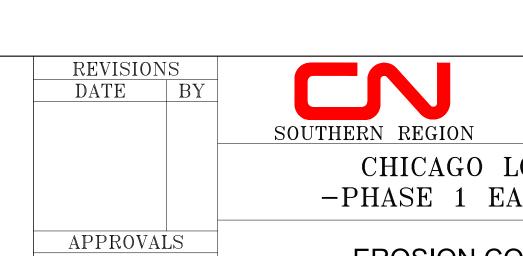


NOTES:

FLOW —>	Compacted Backfill 6" Min FABRIC ANCHUR DETAIL
CONCRETE BLOCK rated risers to be added at each pond outlet.	N□TES: 1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization. 2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 for woven. 3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.
PERFORATED RISER	REFERENCE Project Designed Date Checked Date Approved Date Date Date Date Date Date Date Date





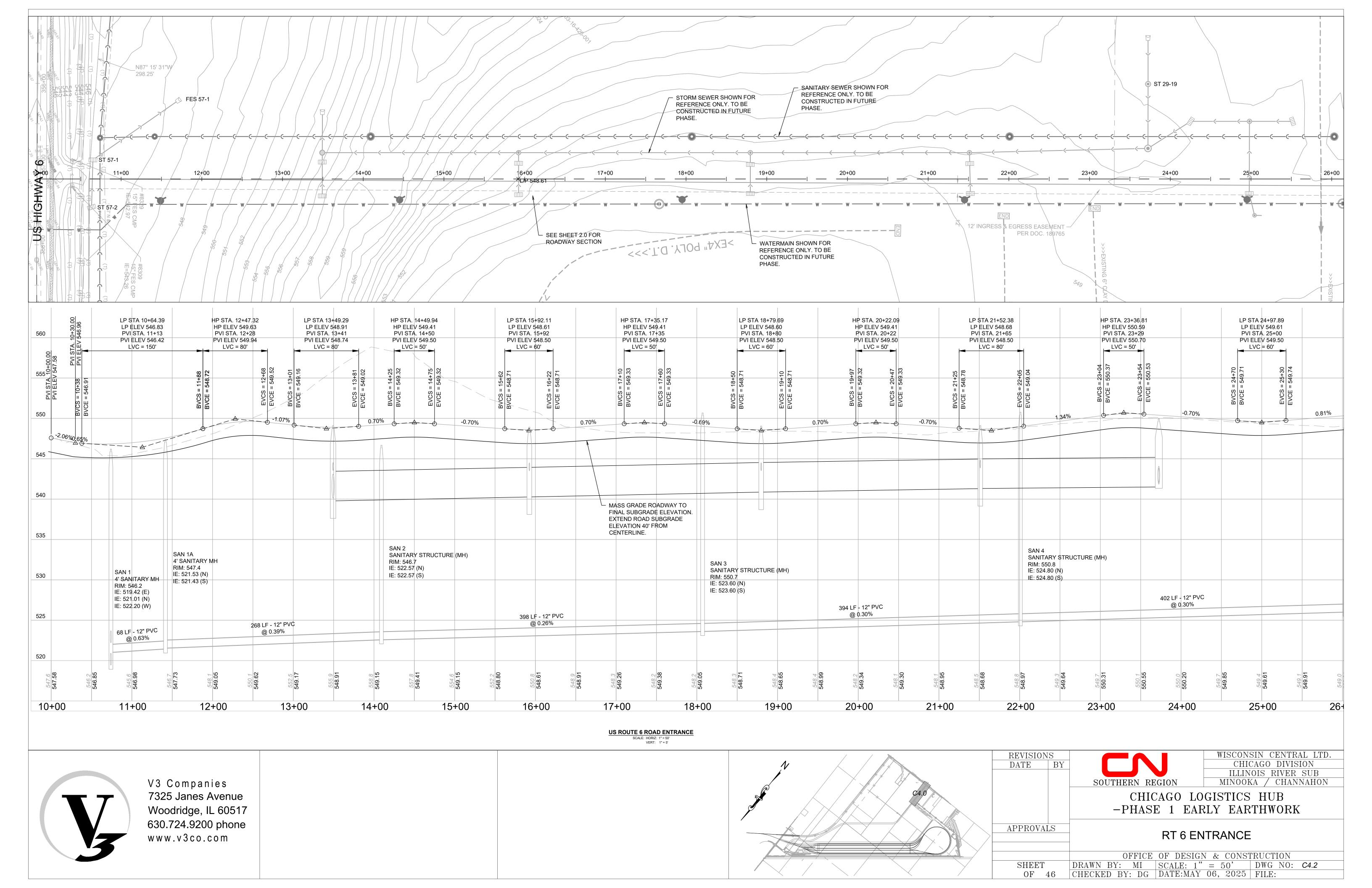


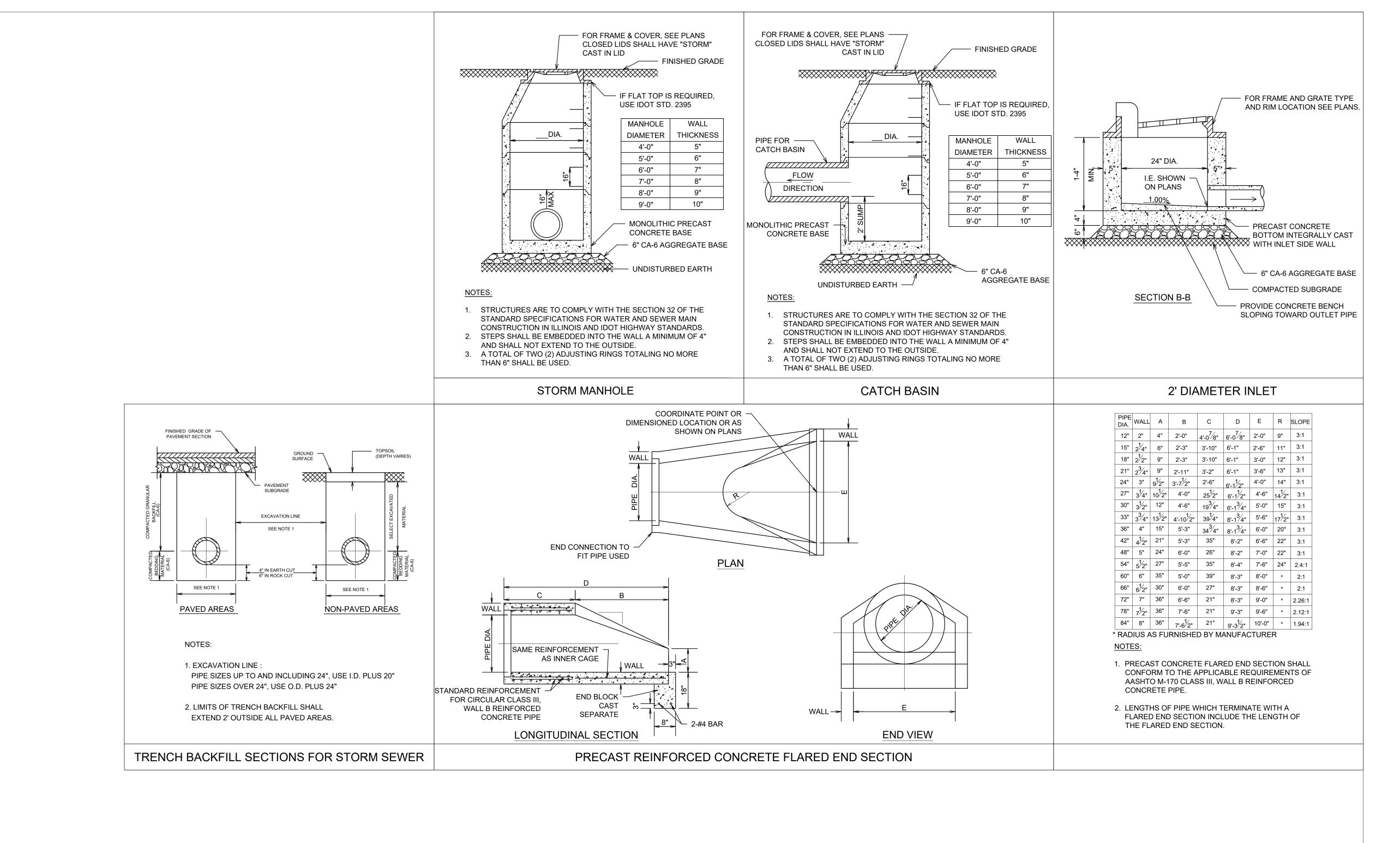
WISCONSIN CENTRAL LTD. CHICAGO DIVISION ILLINOIS RIVER SUB MINOOKA / CHANNAHON CHICAGO LOGISTICS HUB -PHASE 1 EARLY EARTHWORK **EROSION CONTROL DETAILS** OFFICE OF DESIGN & CONSTRUCTION DRAWN BY: MI SCALE: N.T.S. DWG CHECKED BY: DG DATE:MAY 06, 2025 FILE: SHEET DWG NO:C3.17



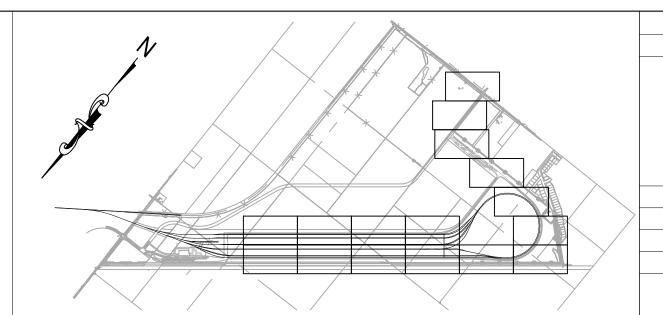
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WISCONSIN CENTRAL LTD. CHICAGO DIVISION ILLINOIS RIVER SUB MINOOKA / CHANNAHON

CHICAGO LOGISTICS HUB -PHASE 1 EARLY EARTHWORK

CONSTRUCTION DETAILS

OFFICE OF DESIGN & CONSTRUCTION DRAWN BY: MI SCALE: N.T.S. DWG CHECKED BY: DG DATE:MAY 06, 2025 FILE: DWG NO: **C5.1** OF 46

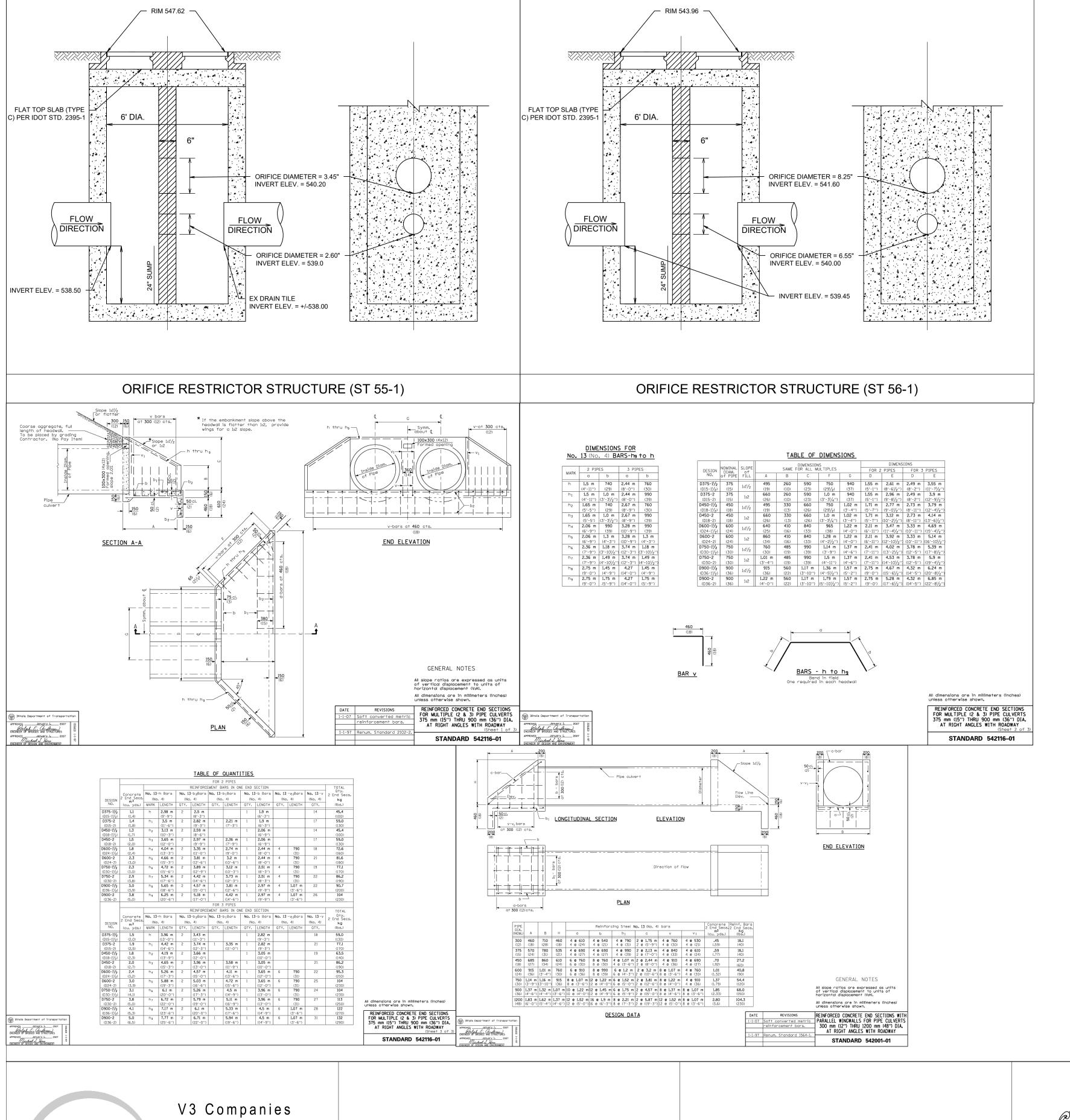
APPROVALS

REVISIONS

SHEET

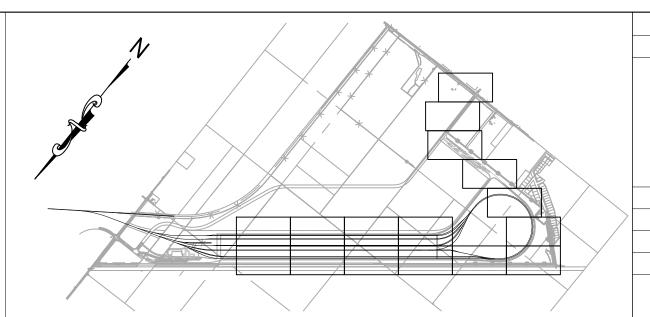
BY

DATE





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REVISIONS

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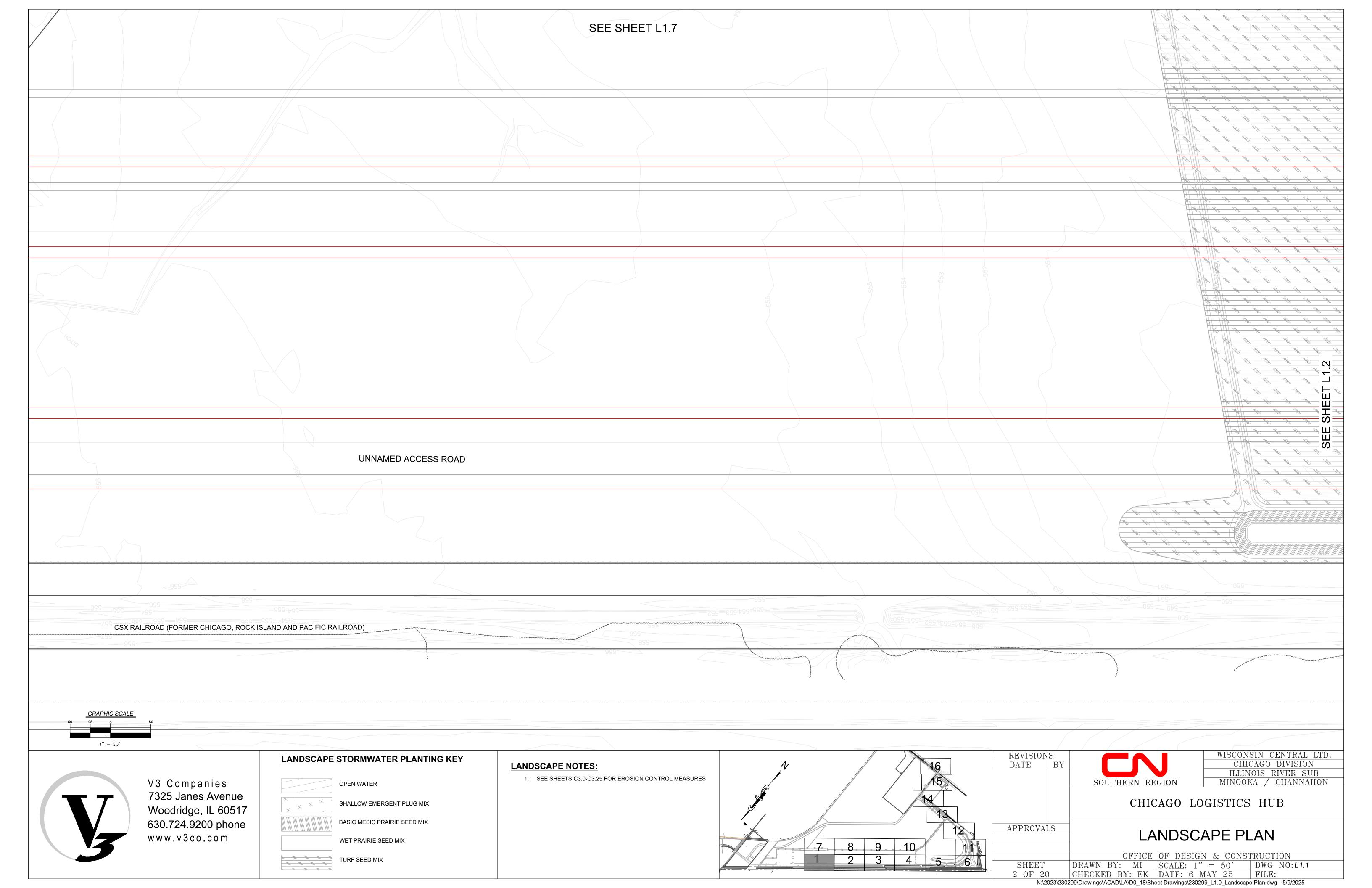
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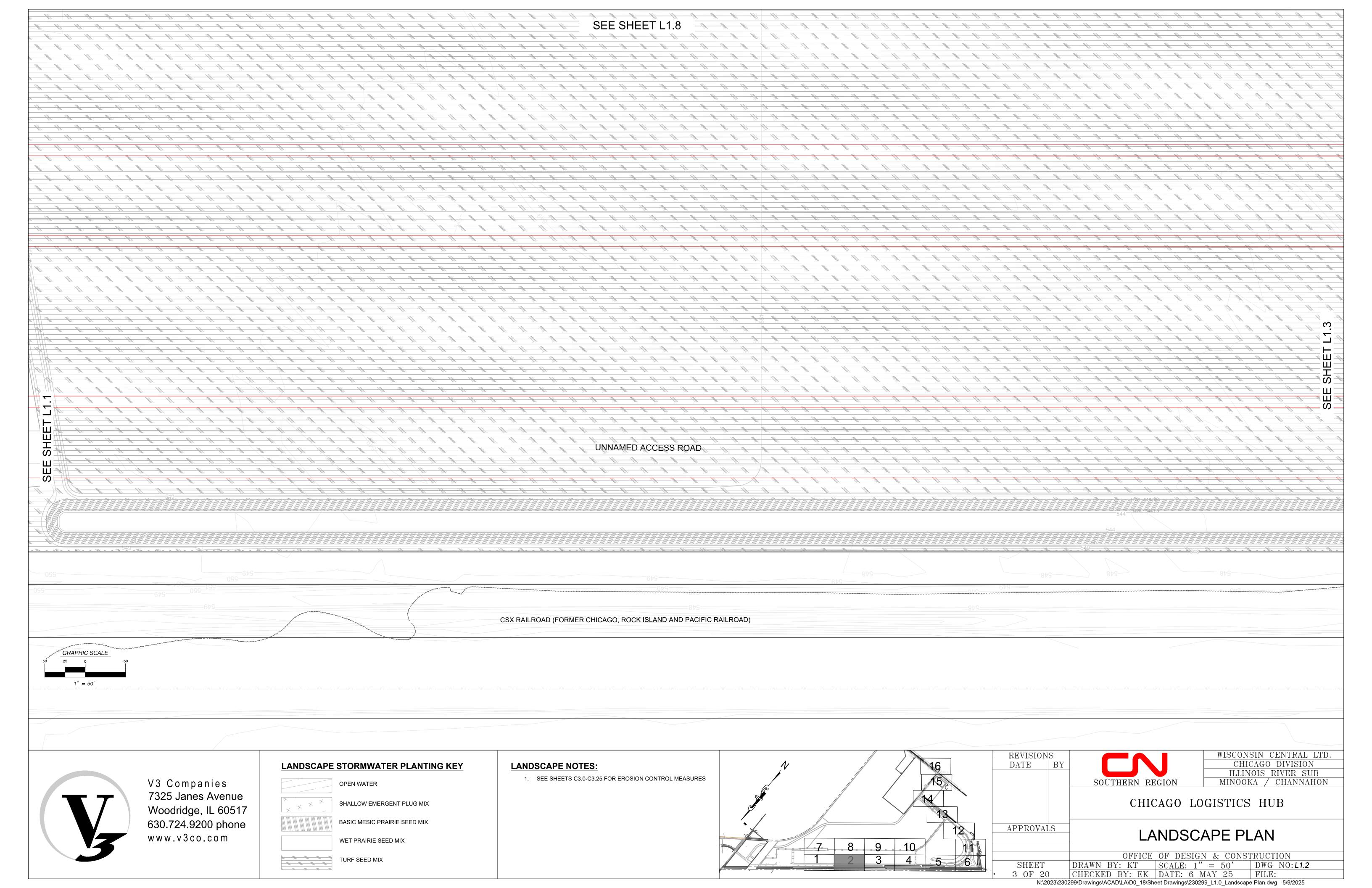
CHICAGO LOGISTICS HUB -PHASE 1 EARLY EARTHWORK

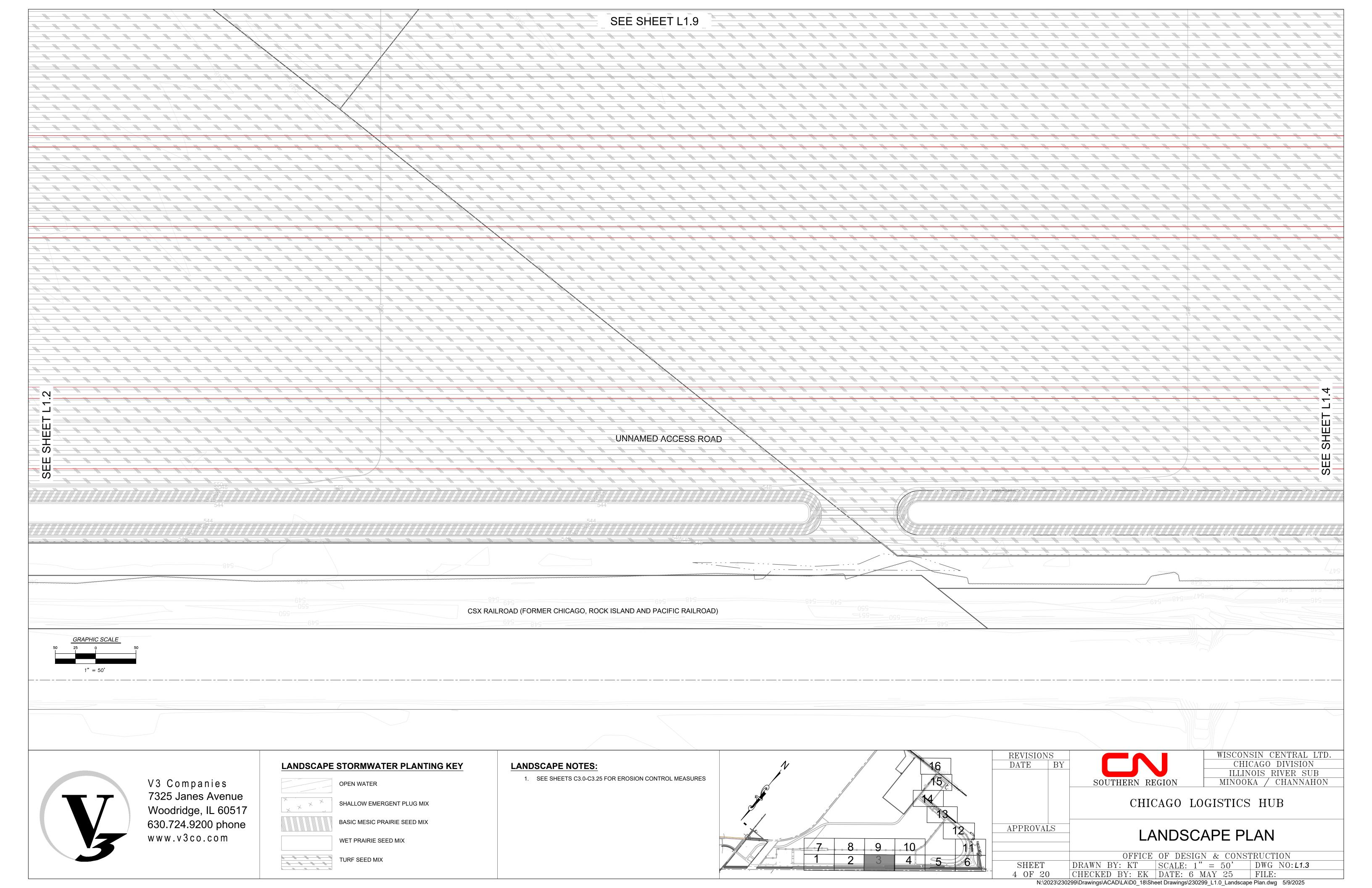
CONSTRUCTION DETAILS

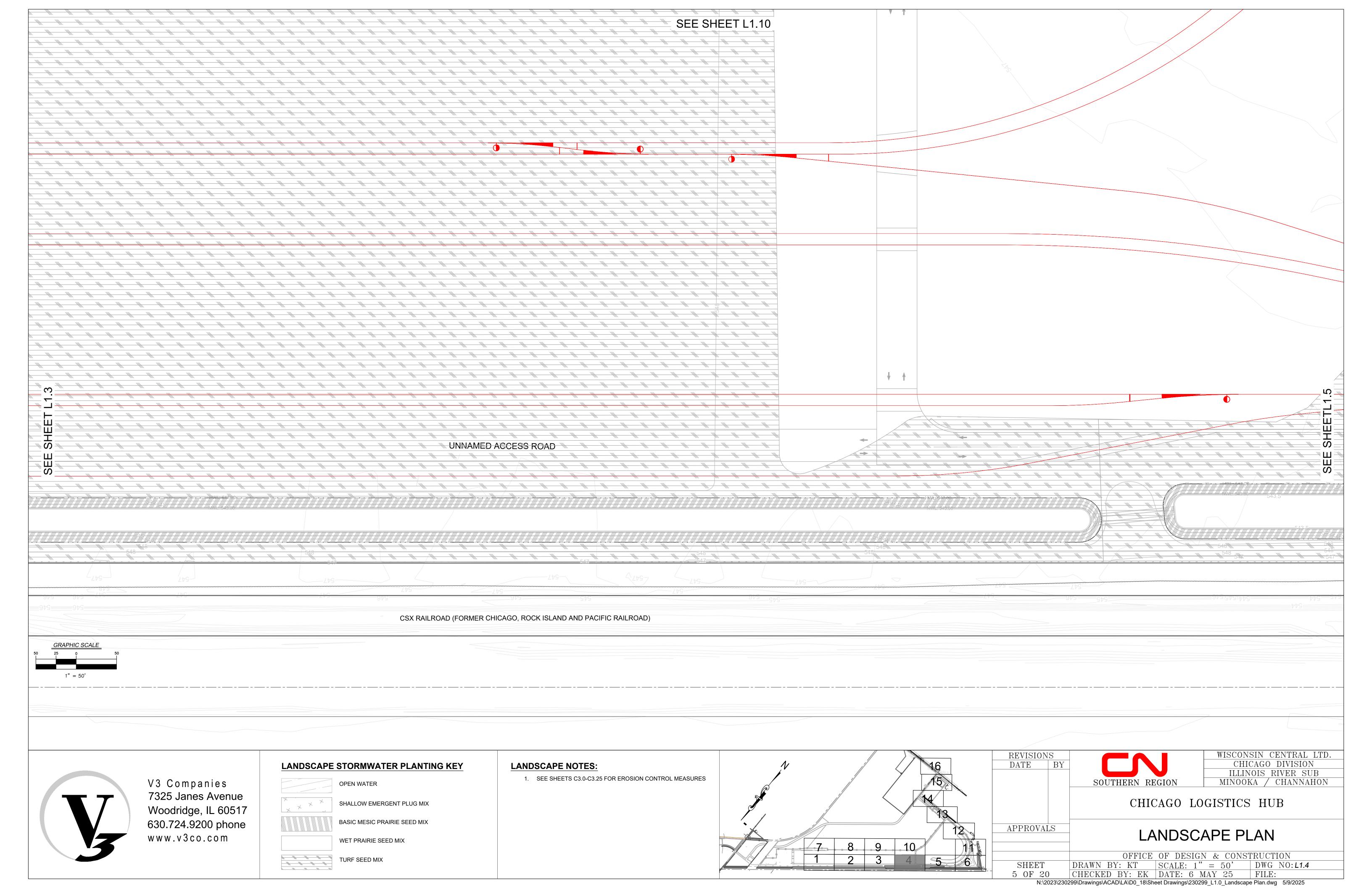
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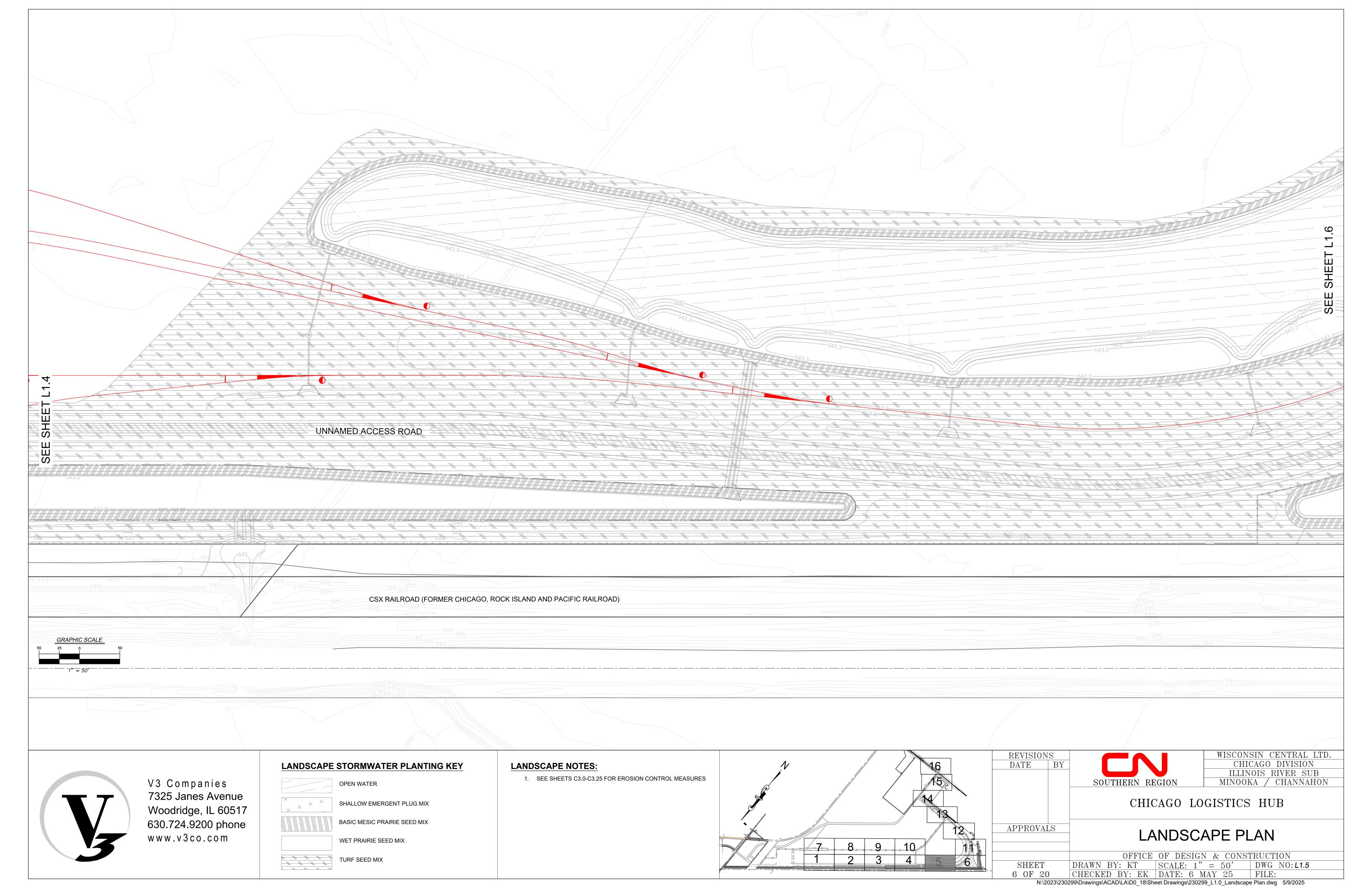
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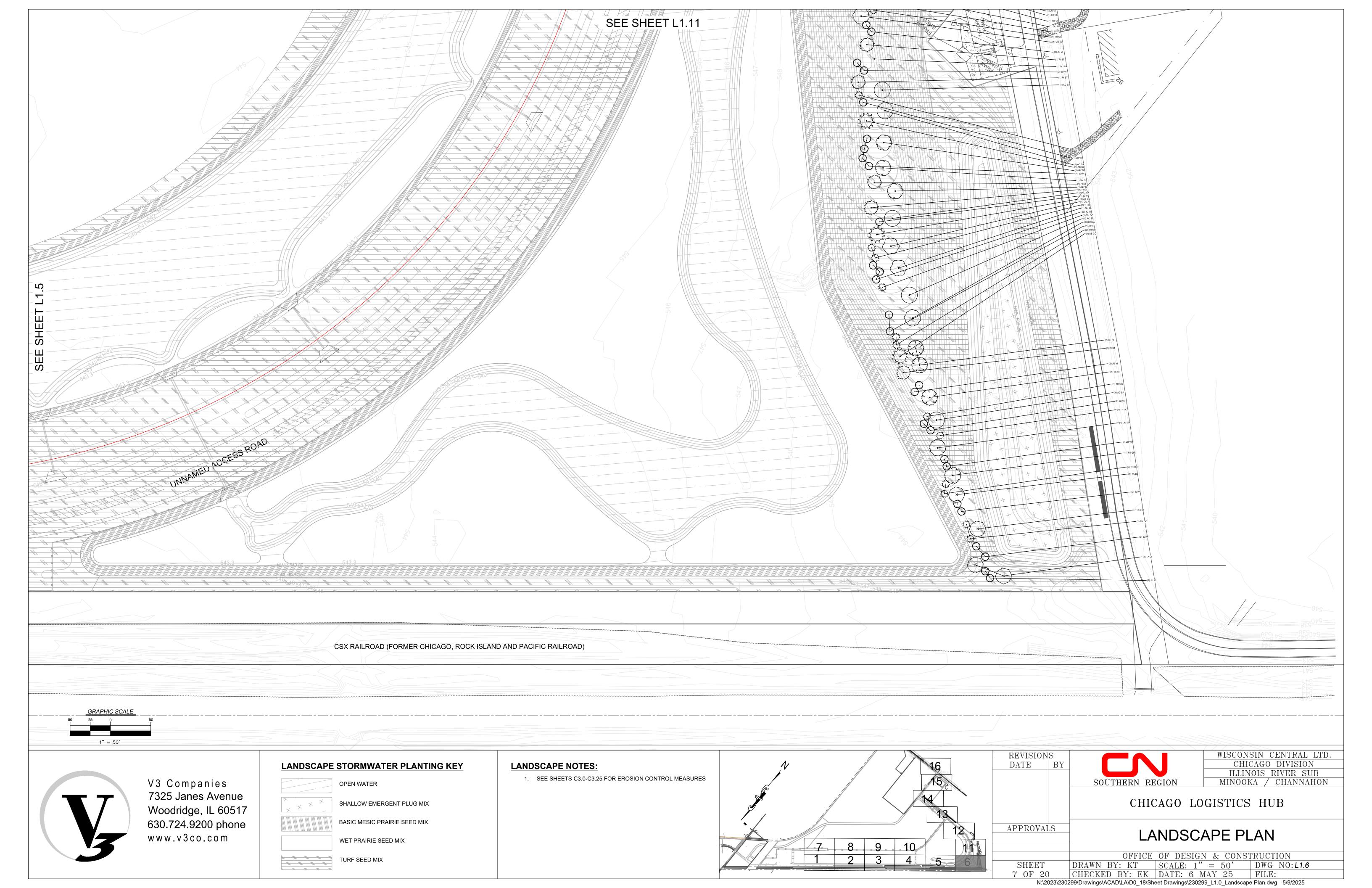


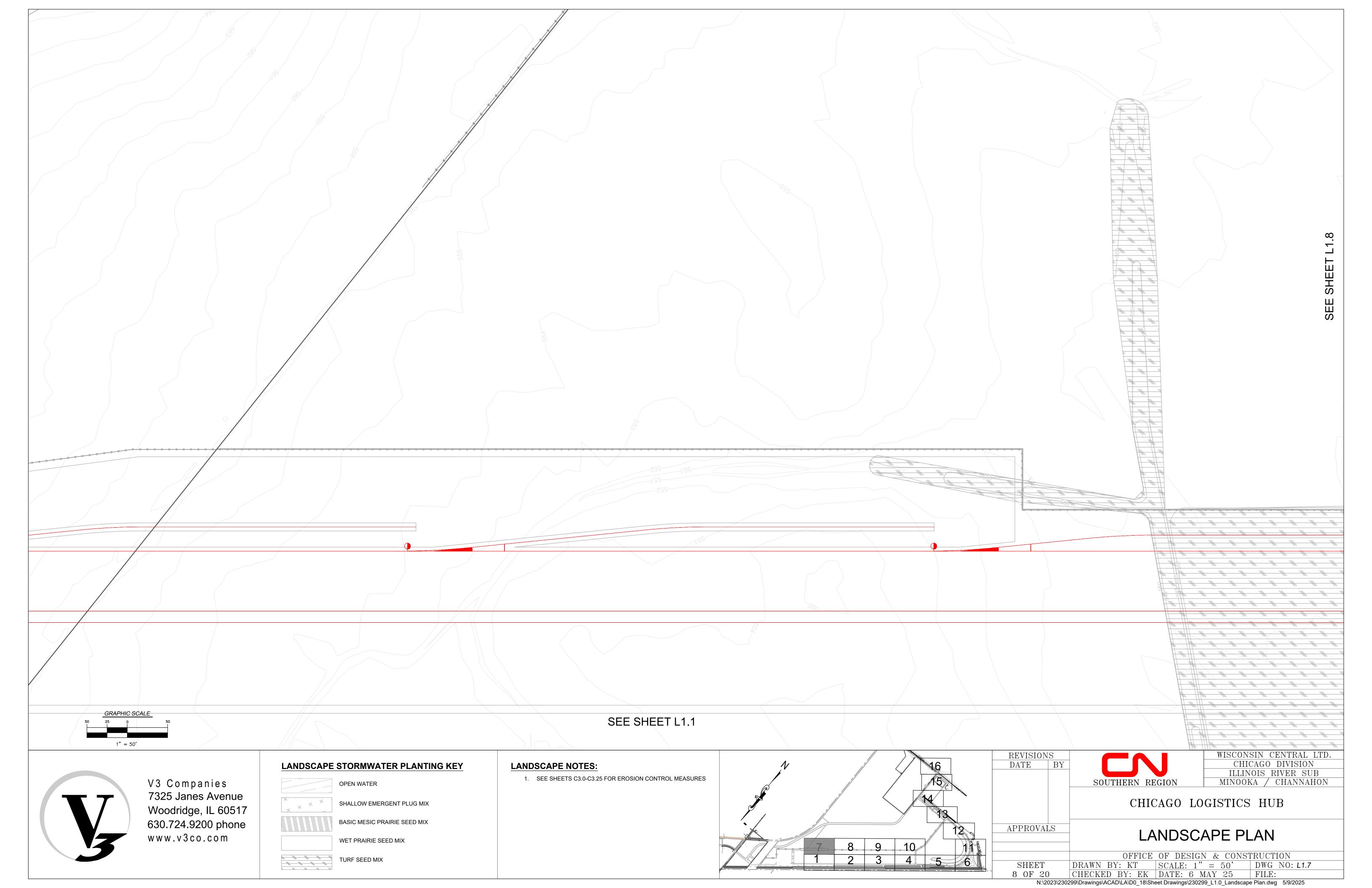


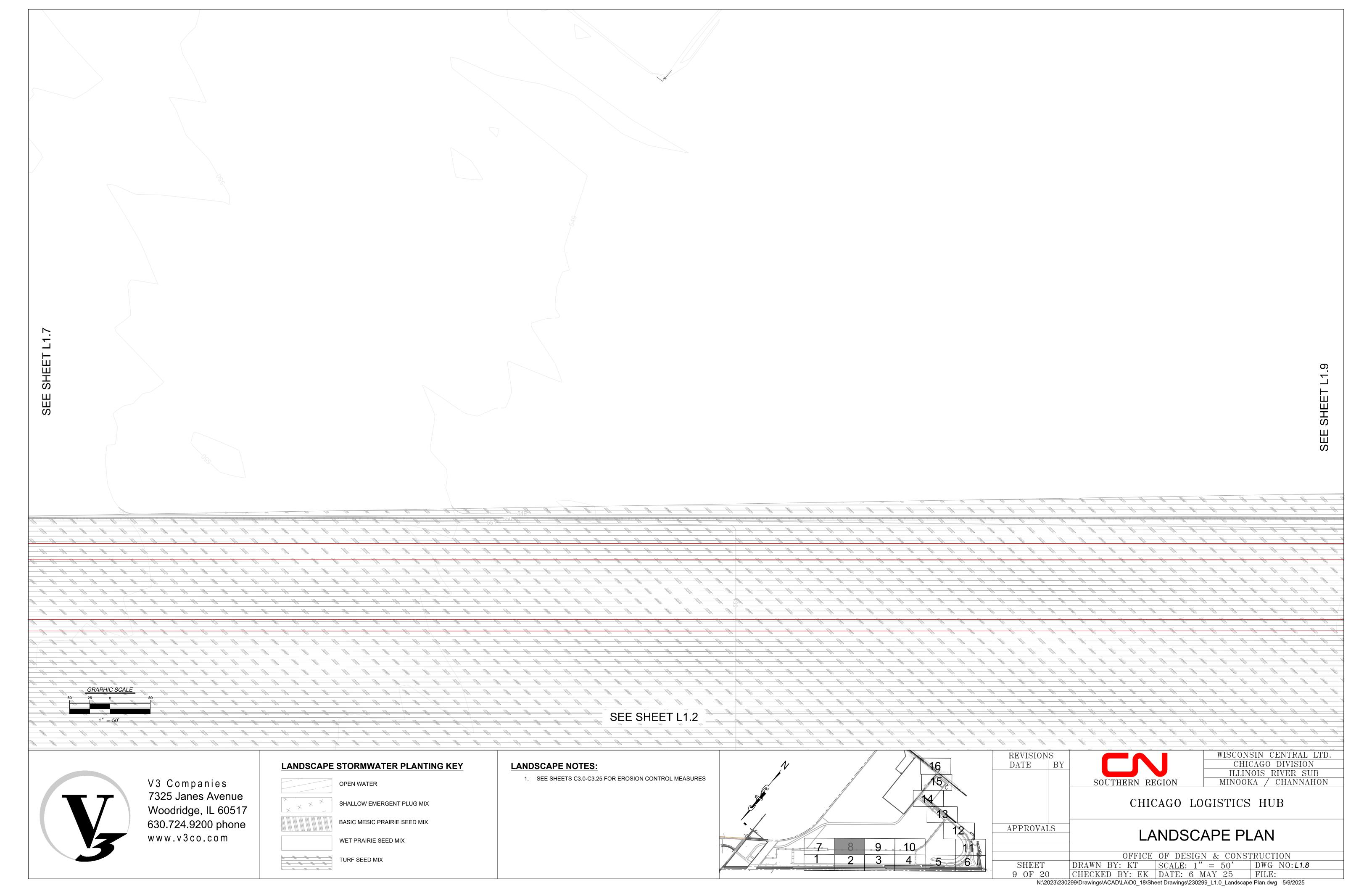


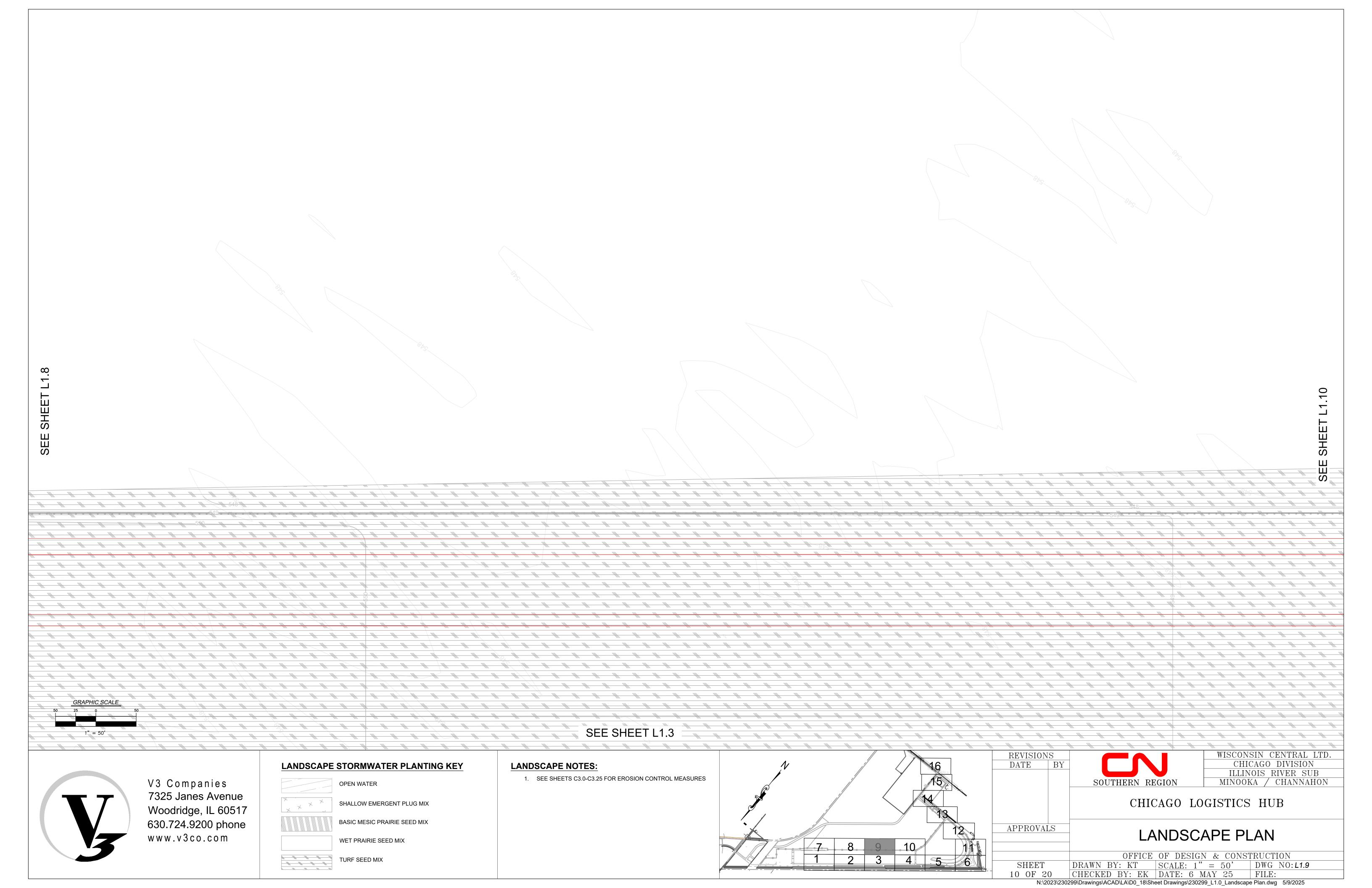


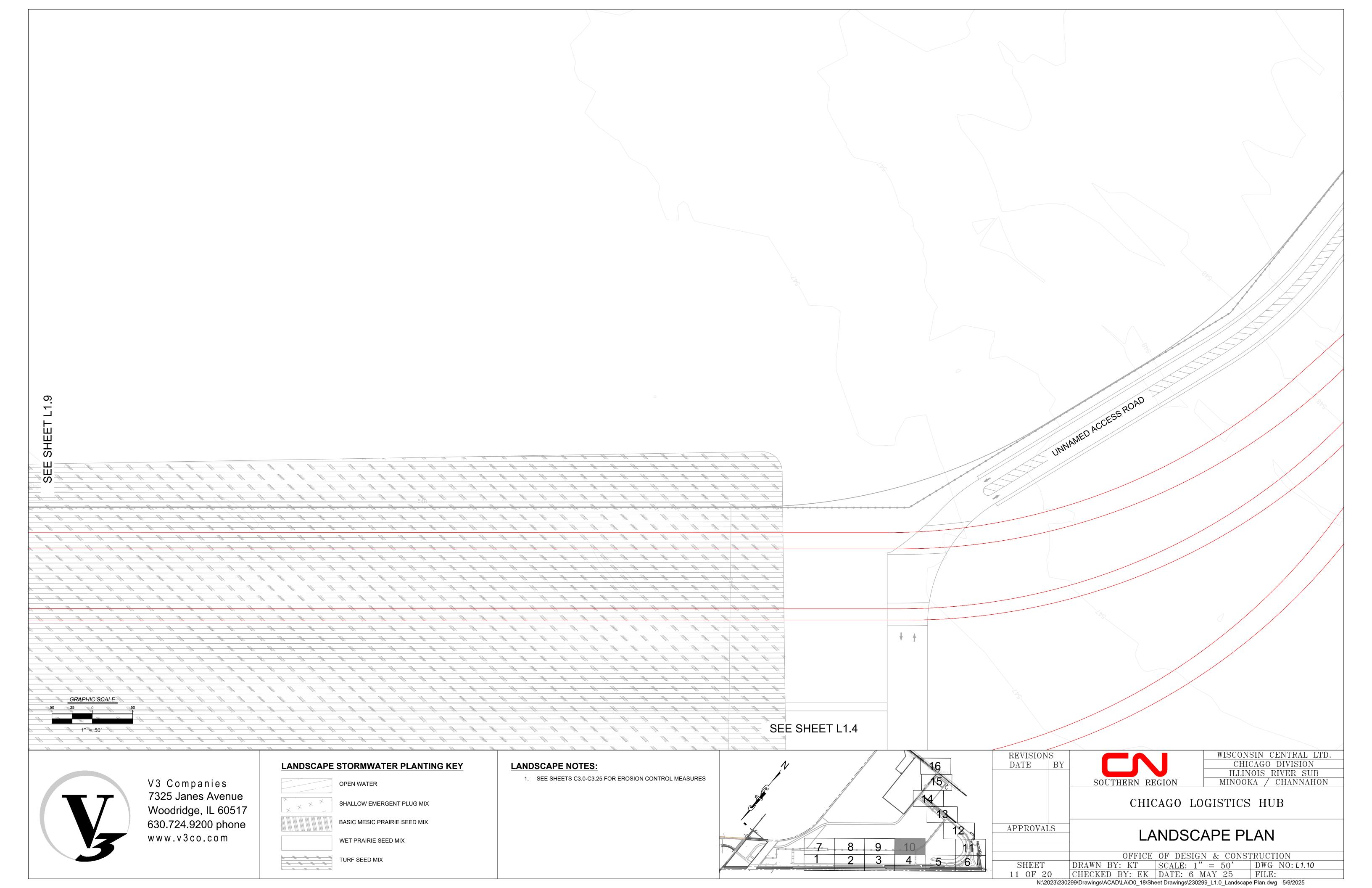


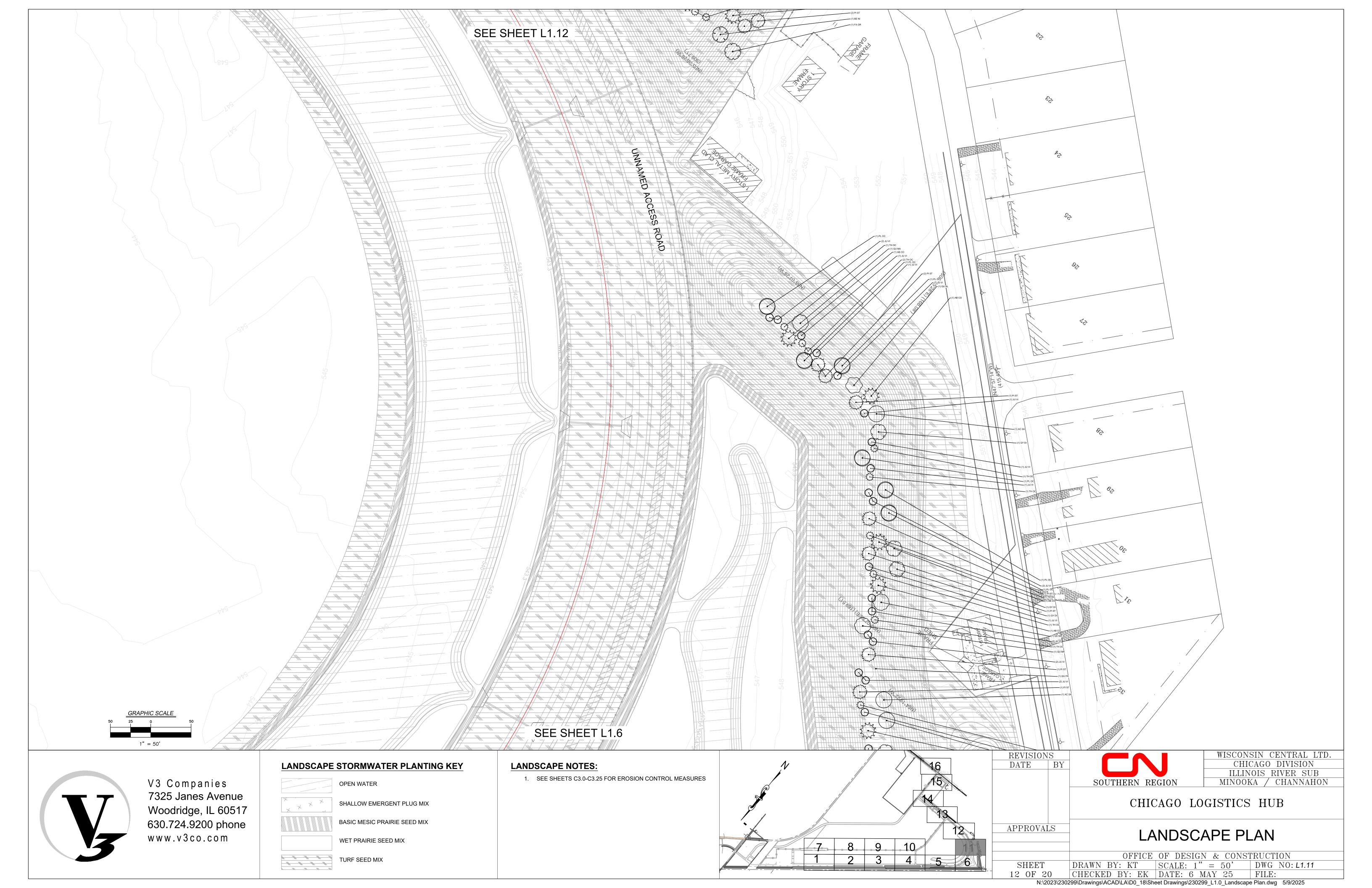


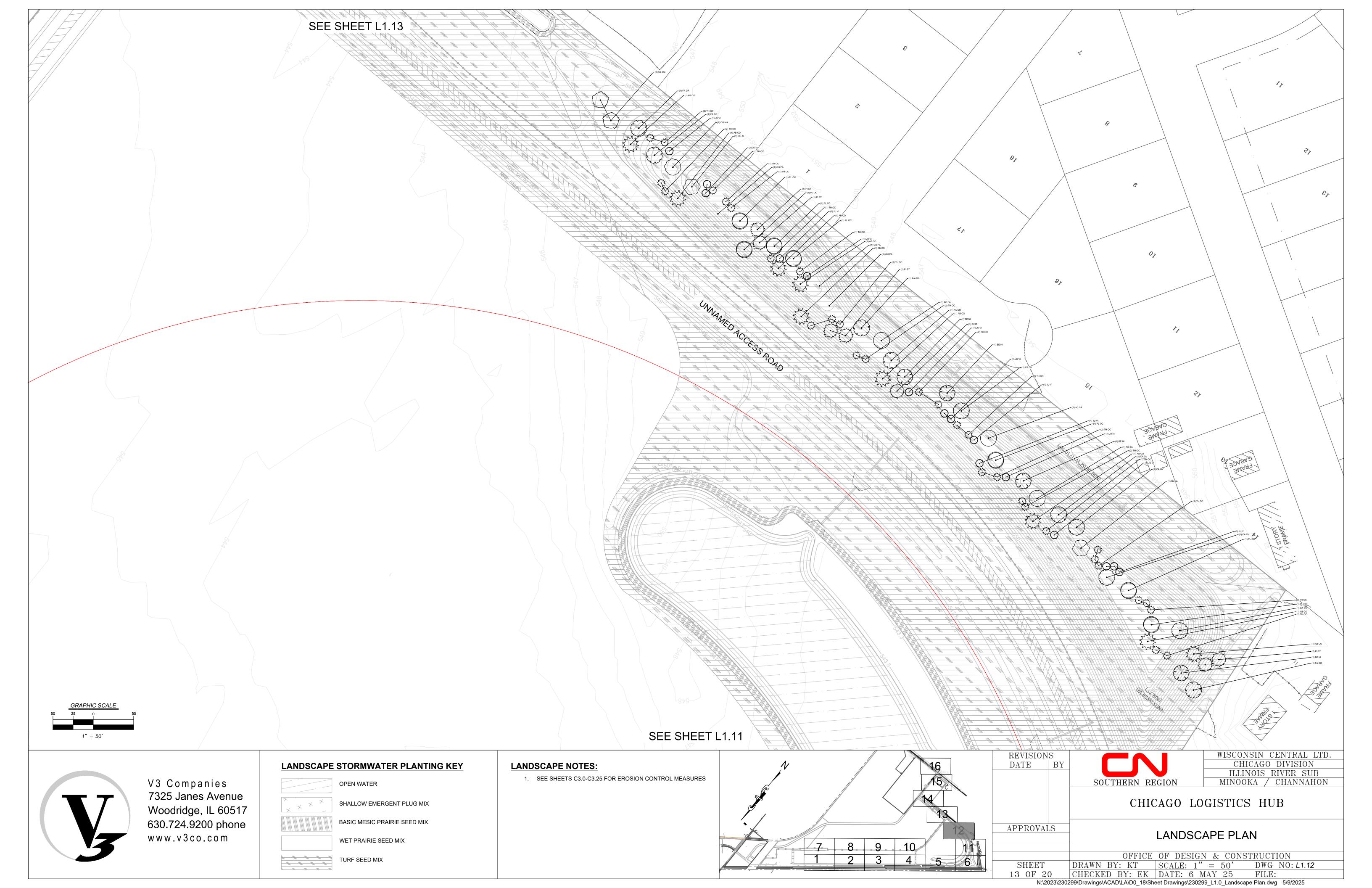


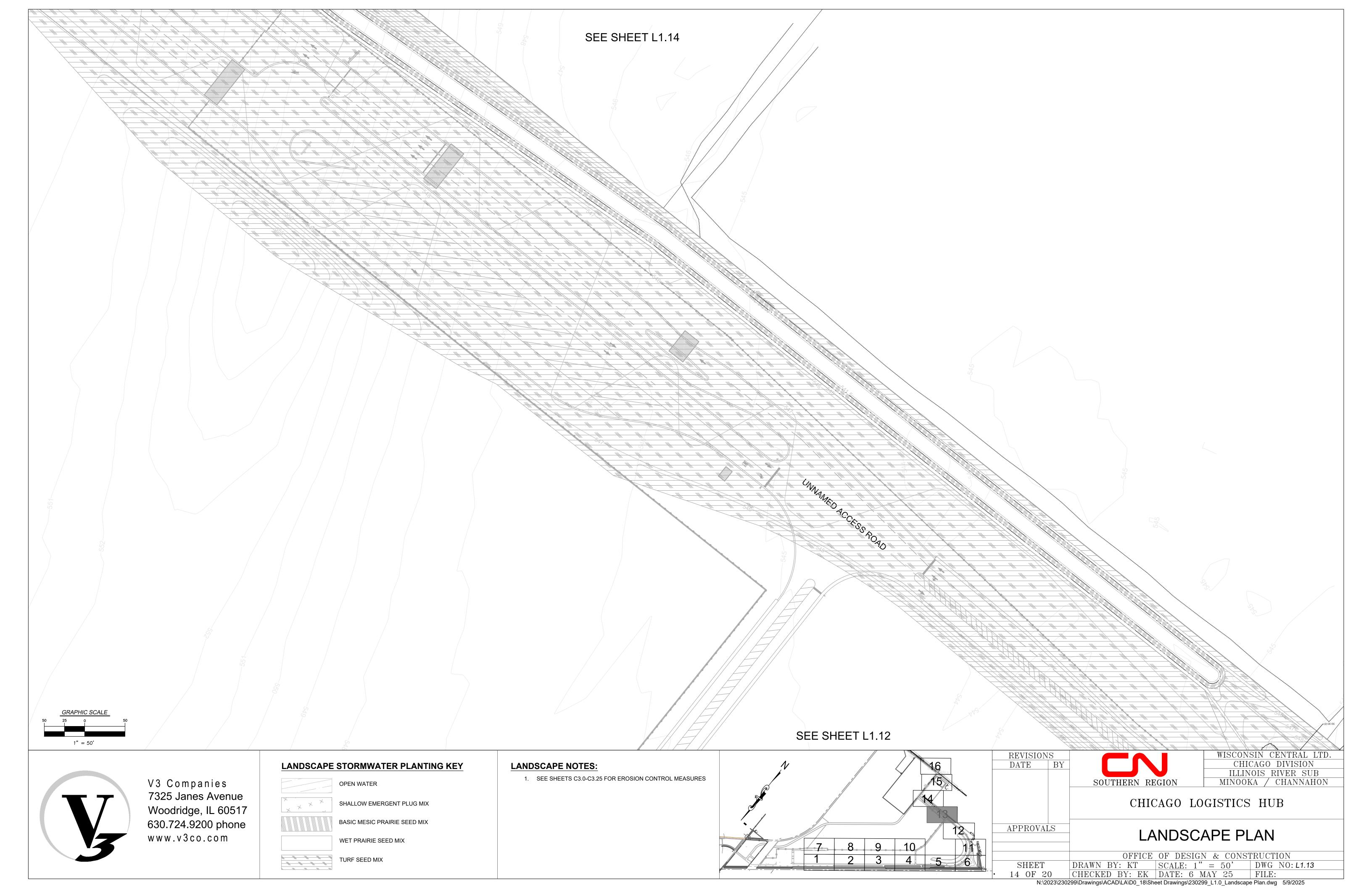


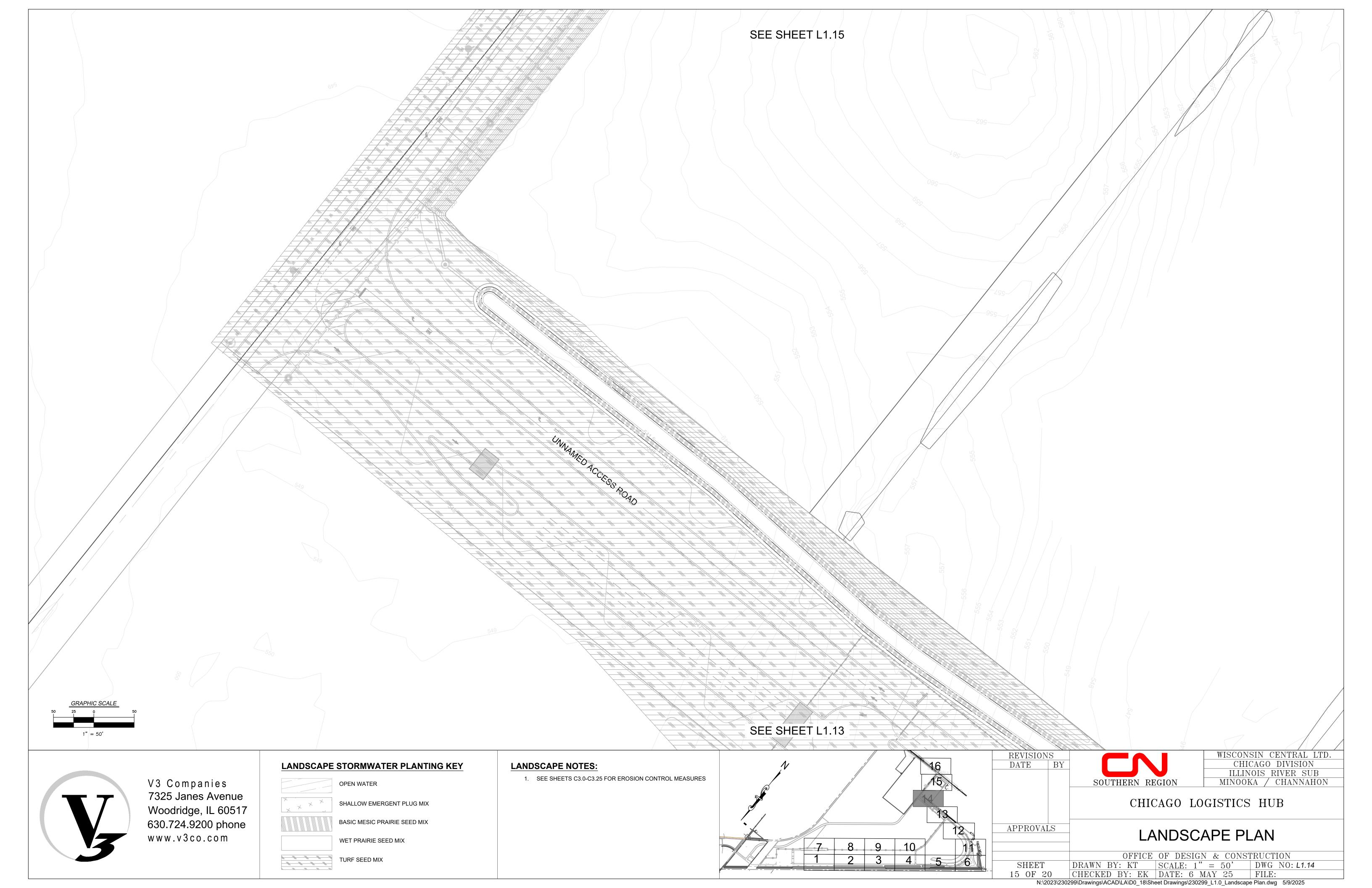


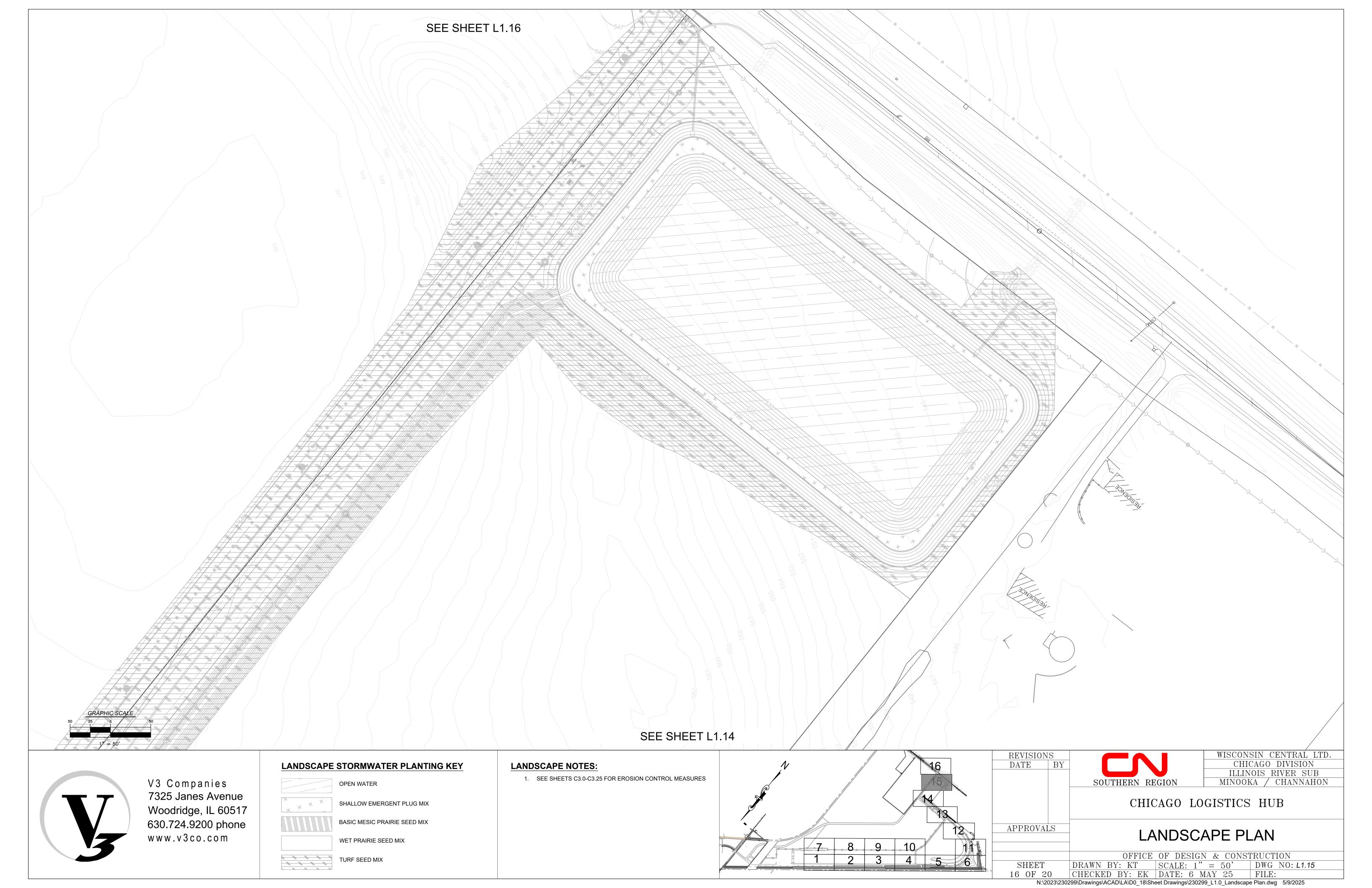


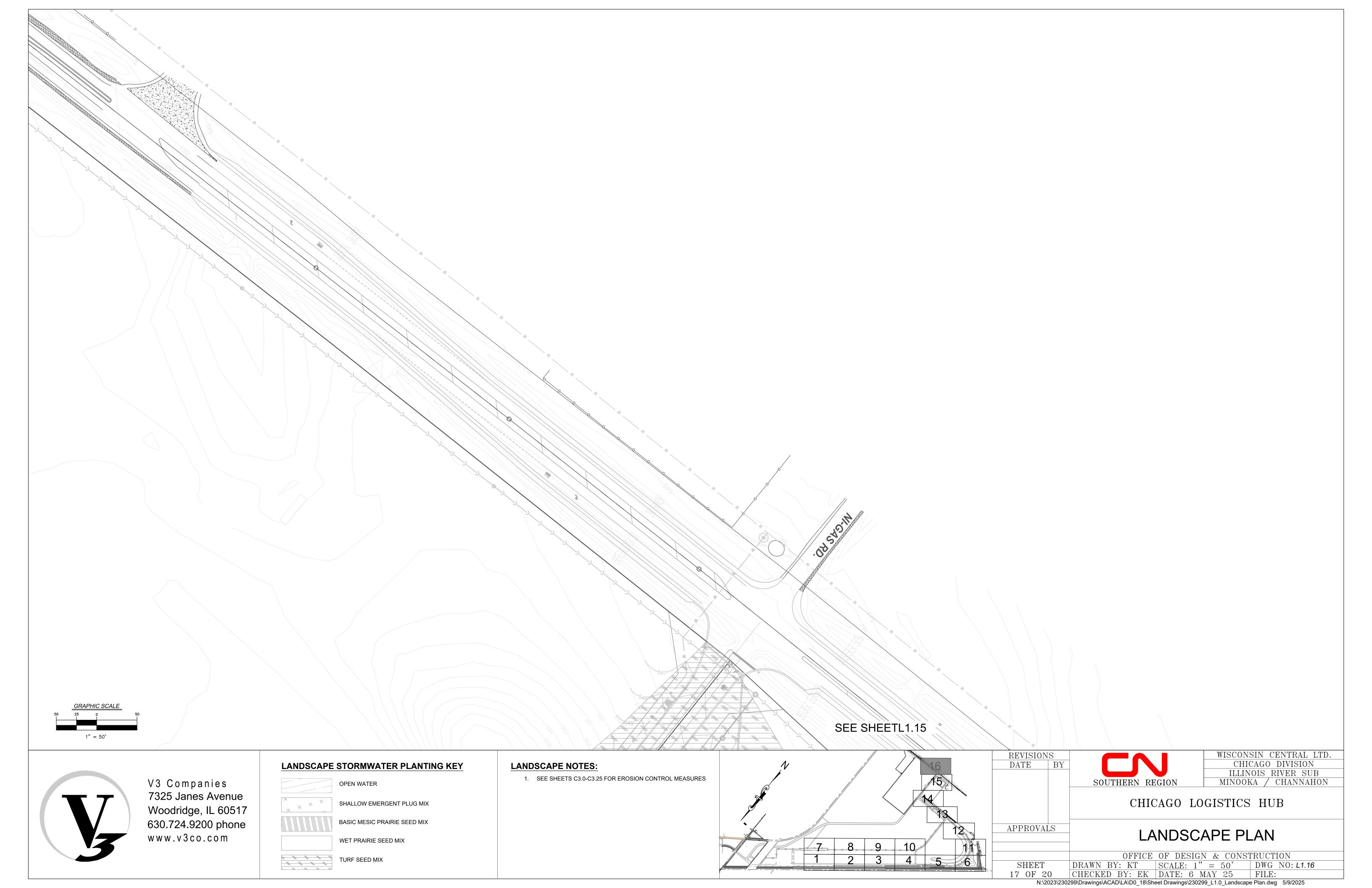


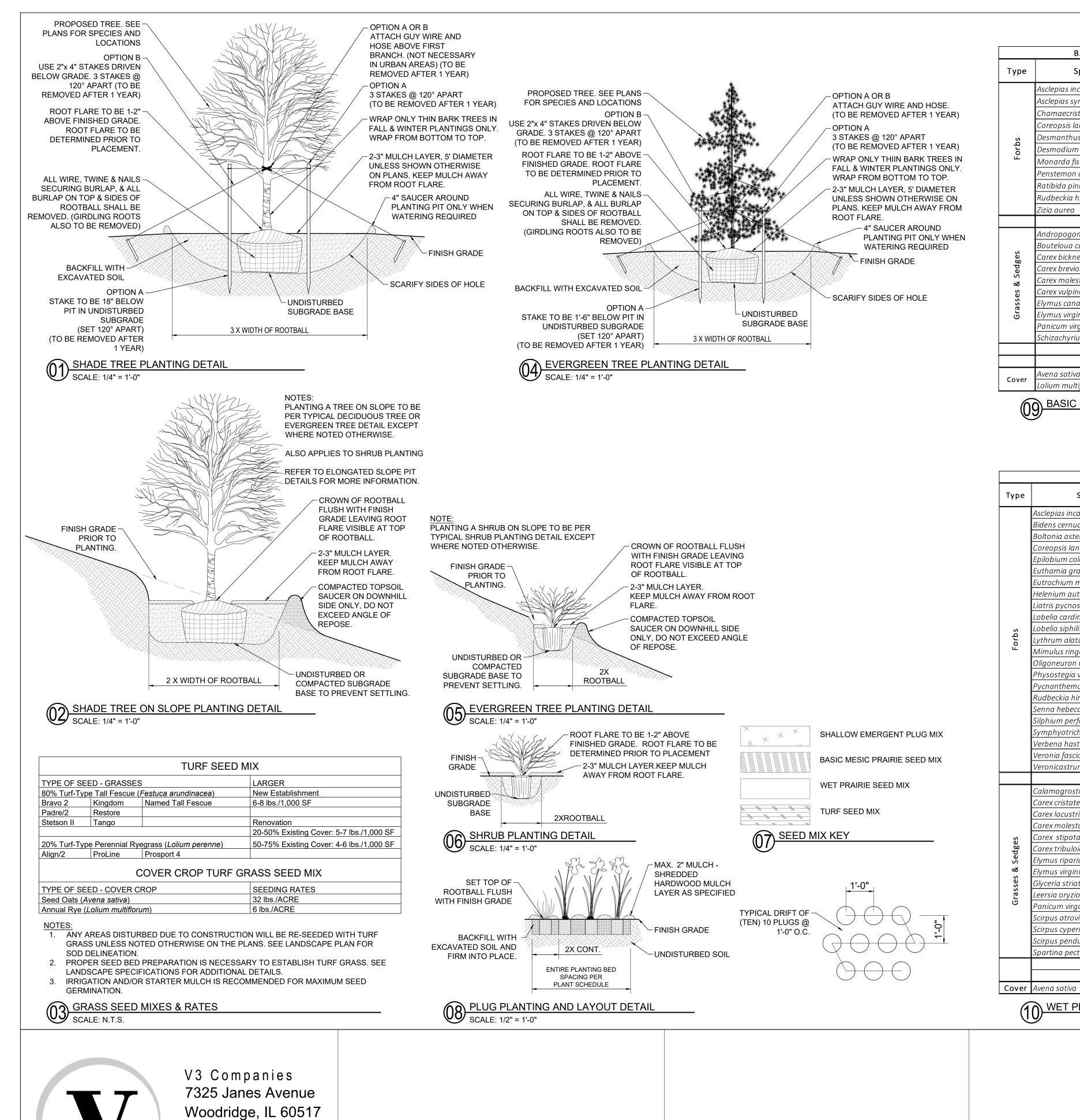






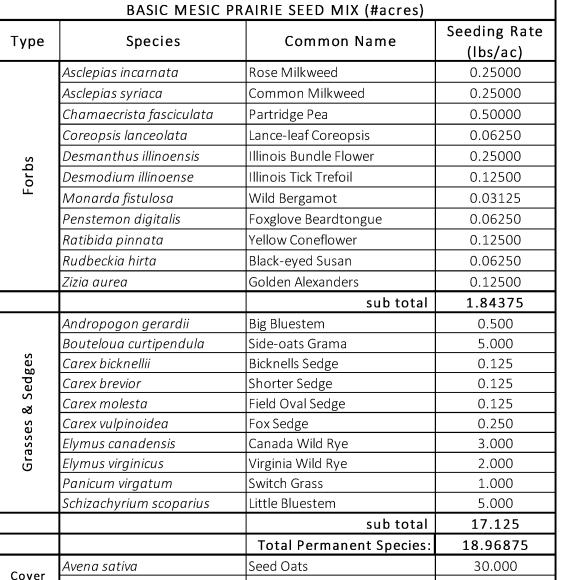






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Annual Rye Grass

olium multiflorum

BASIC MESIC PRAIRIE SEED MIX

	WET PRAIRIE SE	EED MIX (#acres)			
Туре	Species	Common Name	Seeding Rate (lbs/ac)		
	Asclepias incarnata	Swamp Milkweed	0.31250		
	Bidens cernua	Nodding Bur Marigold	0.12500		
	Boltonia asteroides	False Aster	0.06250		
	Coreopsis lanceolata	Lance-Leaf Coreopsis	0.12500		
	Epilobium coloratum	Cinnamon Willow Herb	0.06250		
	Euthamia graminifolia	Grass-Leaved Goldenrod	0.03125		
	Eutrochium maculatum	Joe Pye Weed	0.12500		
	Helenium autumnale	Sneezeweed	0.12500		
	Liatris pycnostachya	Prairie Blazing Star	0.25000		
	Lobelia cardinalis	Cardinal Flower	0.03125		
S	Lobelia siphilitica	Blue Lobelia	0.03125		
Forbs	Lythrum alatum	Winged Loosetrife	0.00500		
Fo	, Mimulus ringens	Monkey Flower	0.01563		
	Oligoneuron riddellii	Riddell's Goldenrod	0.12500		
	Physostegia virginiana	Obedient Plant	0.25000		
	Pycnanthemum virginianum	Mountain Mint	0.06250		
	Rudbeckia hirta	Black-Eyed Susan	0.12500		
	Senna hebecarpa	Wild Senna	0.50000		
	Silphium perfoliatum	Cup Plant	0.50000		
	Symphyotrichum novae-angliae	New Endland Aster	0.12500		
	Verbena hastata	Blue Vervain	0.18750		
	Veronia fasciculata	Common Ironweed	0.12500		
	Veronicastrum virginicum	Culvers Root	0.03125		
		sub total	3.33313		
	Calamagrostis canadensis	Blue Joint Grass	0.12500		
	Carex cristatella	Crested Oval Sedge	0.12500		
	Carex lacustris	Common Lake Sedge	0.12500		
	Carex molesta	Field Oval Sedge	0.12500		
ώ	Carex stipata	Awl-Fruited Sedge	0.12500		
Sedges	Carex tribuloided	Awl-Fruited Oval Sedge	0.12500		
Sec	Elymus riparius	Riverbank Rye	2.00000		
Grasses & S	Elymus virginicus	Virginia Wild Rye	3.00000		
	Glyceria striata	Fowl Manna Grass	0.12500		
	Leersia oryziodes	Rice Cut Grass	0.50000		
	Panicum virgatum	Switch Grass	1.00000		
	Scirpus atrovirens	Dark-Green Bulrush	0.06250		
	Scirpus cyperinus	Wool Grass	0.01553		
	Scirpus pendulus	Rufous Bulrush	0.06250		
	Spartina pectinata	Prairie Cord Grass	1.50000		
		sub total	9.01553		
	To	tal Permanent Species:	12.34865		

(10) WET PRAIRIE SEED MIX

Species	Common Name	Quanti
Acorus americanus*	Sweet Flag	288
Iris virginica shrevei*	Blue Flag	288
Hibiscus laevis*	Rose Mallow	288
Pontederia cordata	Pickerelweed	432
Sagittaria latifolia*	Common Arrowhead	432
Schoenoplectus fluviatilis	River Bulrush	504
Scirpus acutus	Hardstem bulrush	504
Scirpus pungens*	Chairmaker's Rush	288
Scirpus validus creber	Great Bulrush	504
Sparganium eurycarpum	Bur Reed	468
	Total:	3,996

SHALLOW EMERGENT PLUG MIX

PLANT SCHEDULE

5.000

32.000

12 PLANT SCHEDULE

REVISIONS

19 OF 20

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CAL	<u>HT</u>
<u>DECIDUOUS TREE</u>							
•	AC SA	9	ACER SACCHARUM	SUGAR MAPLE	B & B	2.5" MIN.	
	BE NI	7	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK	B & B		10` MIN.
	CA OV	5	CARYA OVATA	SHAGBARK HICKORY	B & B	2.5" MIN.	
	CE OC	2	CELTIS OCCIDENTALIS	COMMON HACKBERRY	B & B	2.5" MIN.	
	FA GR	6	FAGUS GRANDIFOLIA	AMERICAN BEECH	B & B	2.5" MIN.	
	GY DI	6	GYMNOCLADUS DIOICA	KENTUCKY COFFEETREE	B & B	2.5" MIN.	
	PL OC	13	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	B & B	2.5" MIN.	
	QU AL	5	QUERCUS ALBA	WHITE OAK	B & B	2.5" MIN.	
	QU MA	6	QUERCUS MACROCARPA	BURR OAK	B & B	2.5" MIN.	
•	QU PA	4	QUERCUS PALUSTRIS	PIN OAK	B & B	2.5" MIN.	
+	TA DI	4	TAXODIUM DISTICHUM	BALD CYPRESS	B & B	2.5" MIN.	
EVERGREE	EN TREE						
	АВ СО	16	ABIES CONCOLOR	WHITE FIR	B & B		10` MIN.
Annual de la companya	JU VI	55	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	B & B		10` MIN.
2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	PI ST	17	PINUS STROBUS	WHITE PINE	B & B		10` MIN.
\ • \	TH OC	51	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	B & B		10` MIN.

CHICAGO DIVISION DATEBY ILLINOIS RIVER SUB MINOOKA / CHANNAHON SOUTHERN REGION CHICAGO LOGISTICS HUB APPROVALS LANDSCAPE DETAILS & NOTES OFFICE OF DESIGN & CONSTRUCTION SHEET DRAWN BY: KT | SCALE: 1" = 50' | DWG NO: L1.20

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WISCONSIN CENTRAL LTD.

STORMWATER MANAGEMENT AREAS & LANDSCAPE SPECIFICATIONS

SITE PREPARATION

When feasible, prior to mass earthwork operations, stake the limits of the proposed stormwater management areas & landscape planting areas and do not allow heavy equipment to run over the soil in these locations. Soil compaction is very critical in the functioning of stormwater management areas. Do not clear vegetation until necessary to help minimize site erosion.

Place tree protection barriers around the drip line of all trees that are to remain. There shall be no storage of materials, heavy equipment or vehicles within the drip line of trees.

MATERIALS

1.2.1 SUBMITTAL REQUIREMENTS

|Contractors shall submit to engineer/landscape architect for review and approval all proposed materials to be used within the stormwater management areas and landscape areas prior to purchase. Submittals include but are not limited to:

- Planting soil composition
- Compost/Mulch
- River Cobble
- Turf Grass Sod and Seed Plant lists (Woody and herbaceous materials)
- Herbicides and Pre-Emergent Herbicides

1.2.2 PLANTING SOIL

The soil shall be a uniform, well blended mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bio-retention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The soil mix shall be free of Bermuda grass, Quack grass, Johnson grass, or other noxious weeds. The planting soil for bio-retention facilities shall consist of a mixture of sand or crushed glass cullet of equivalent grade, topsoil, and compost components, to obtain an engineered soil mix meeting the following

|USDA Texture class: sandy loam or loamy sand. Mineral fraction consists of no less than 40% well-graded sand or glass cullet and no greater than 10% clay (dry weight basis)

Organic content: 20% (dry weight basis)

pH: 5.5 - 7.0

|Soluble Salts (Salinity): less than 500 mg/kg (500ppm)

Phosphorous: soil p-index should be between 15 and 40 Permeability: Minimum 0.50 inches/hour

Volumetric proportions of the components making up the bio-retention soil mix shall be as follows:

- Sand: 50% by volume
- Compost: 20% by volume
- Topsoil: 30% by volume

Compost shall be finished (aged), and composted material shall be of plant origin. Compost shall have a C:N ratio ≤ 25:1. If the planting soil does not meet the above characteristics, then it shall either be adjusted to meet the criteria or removed and replaced with an acceptable

planting soil. See 1.3 Testing Requirements. Existing topsoil on site may be amended to meet the specifications of the planting soil mix. The existing topsoil shall be tested for organic content, grain size lanalysis and permeability to identify necessary amendments.

Planting soil shall not be incorporated into the Work until it is approved by the engineer/landscape architect.

1.2.3 MULCH MATERIAL

A mulch layer shall be provided on top of the planting areas, to the depth of 2-3 inches. The material shall consist of finished (aged) leaf compost mulch, and shall be well mixed and homogenous, uniform in color and free of foreign material and viable plant seeds. The mulch material shall have no visible free water and produce no dust when handled. It shall meet the following criteria:

90% of material passing ½" screen Organic content: 35- 65% (dry weight basis)

pH: 6.0 - 8.0

1.2.4 TURF GRASS SEED

1.2.4.2 TURF GRASS SEED / COVER CROP See plans for seed mixture(s) and rate(s). No substitutions shall be allowed without approval from the ecological consultant.

Seed shall be clean, delivered in original unopened packages, and bearing an analysis of the contents. Guaranteed 98 percent pure and to have a minimum germination rate of 90 percent; within 1 year of test.

Temporary cover shall be Seed Oats (Avena sativa) and annual rye grass (Lolium multiflorum). Under no circumstances shall the site be stabilized with winter rye, grain rye, or winter wheat. These plants produce toxins that inhibit prairie seed germination.

11.2.5 LIVE PLANT MATERIAL

1.2.5.2 LIVE PLANTS

See plans for approved herbaceous plant lists. All native plants must be of wild ecotype. No hybrids, cultivars or substitution may be included without approval from the engineer/landscape architect. Local genotypes are adapted to local soil and climate conditions and shall be used whenever possible.

TESTING REQUIREMENTS

1.3.1 PLANTING SOIL TESTING Soil tests shall be performed for every 500 cubic yards of planting soil, with the exception of pH and organic content tests, which are required only once per

stormwater management BMP. The planting soil shall be tested and shall meet the following criteria:

- pH range: 5.5 7.0
- organic matter: 5 10% (dry weight basis) magnesium: minimum 35 lbs/acre
- phosphorus (phosphate P2O5, Bray I): shall not exceed 75 lbs./acre
- potassium (potash K2O): minimum 85 lbs/acre
- soluble salts not to exceed 500 ppm

All stormwater management areas shall have a minimum of one test per bioretention basin and a minimum of one soil test per 500 cubic yards. Each test shall consist of both the standard soil test for pH, phosphorus, and potassium and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the top soil was excavated. Should the pH fall out of the acceptable range by no greater than 0.2, it may be modified (higher) with lime or (lower) with iron sulfate plus sulfur.

- INSTALLATION
- 1.4.1 PLANTING SOIL

nstallation of soils must be completed in a manner that will ensure preservation of the infiltrative capacity of the underlying soils. The moisture content of the soil shall be low enough to prevent clumping and compaction during placement.

To prevent compaction within the limits of the basins, only hand laborers, small excavation hoes with wide tracks, light equipment with turf tires, marsh equipment or wide-track loaders may be used. No heavy equipment shall be used within the perimeter of the stormwater management BMP facility before, during, or after the placement of the planting soil.

It is very important to minimize compaction of both the base (in-situ soil) of the stormwater management areas and the required backfill. Re-fracture subgrade soils that have been compacted or smeared by raking, disking or tilling to a minimum depth of 12 inches. Soil surfaces shall be scarified by manually raking to aerate and reduce soil compaction. Soil shall be placed in 6 inch loose depth lifts. Lifts are performed in order to reduce the possibility of excessive settlement. Soil shall be lightly hand-tamped or compacted with a water-filled landscape roller, to reduce potential for excessive settling. No other mechanical equipment shall be used to compact the planting soil or underlying soils. Lifts may also be watered to encourage natural compaction. Overfill to allow for natural settlement.

Uniformly grade planting soil to achieve a smooth surface, free of irregular surface changes. Do not over-work or excessively compact planting soil. Grade to cross sections, thickness and elevations indicated on plans. Settling of soil by walking on surface and working with hand equipment is acceptable.

- 1.4.3 PERMANENT TURF GRASS SEED
- 1.4.3.1 SEQUENCING AND SCHEDULING

Perform the seeding work and at such times that the seeding will not be damaged by freezing temperatures, rain, or high winds. Optimum Seeding Dates:

Northern Indiana/Illinois: August 15 through September 15

- Southern Indiana/Illinois: September 1 through September 30
- Dormant seeding can be done from Thanksgiving through March, when no snow is present, but before the ground has thawed. Spring seeding is often difficult but is acceptable from April through June if site conditions and construction schedules warrant the need for spring seeding. Summer seeding should be avoided when possible. Permanent seeding done between May and August may require irrigation.

1.4.3.2 SITE PREPARATION

Verify the depth and quality of the topsoil and that the topsoil has been placed according to specifications or exists as a current site condition. Restore areas if eroded or otherwise disturbed after finish grading and before installation. Proceed with installation only after unsatisfactory conditions have been corrected. All weeds and grasses shall be dug out by the roots and disposed of off-site. Rake topsoil thoroughly by running in two directions at right angles over the entire surface to be planted. Rake so all areas drain and are of uniform slope. Remove all trash and stones exceeding ½" in diameter from area to a depth of 2" prior to preparation and installation of sod. Removal of stones and debris shall be done at the time of installation. Repair topsoil disturbed 7. All native seed shall be provided on a pure live seed (PLS) basis. Actual seed amounts used on the project will vary with the actual percent of PLS in by removal of stones and debris.

1.4.3.3 PLANTING

Sow grassed areas evenly with a mechanical spreader at the minimum rate as specified on the plans, roll to cover seed and water with fine spray. Wet soil at a rate of approximately 120 gallons per 1,000 square feet. River water, where available and allowed by federal, state and local authorities, is suitable for irrigation. Method of seeding may be varied at discretion of Contractor on his own responsibility to establish a smooth, uniformly-grassed area.

1.5 QUALITY OF WORKMANSHIP

All workmanship and finishes shall be first class in all respects, and in accordance with the best practice. The drawings and specifications describe the scope of work but do not show or describe all work or material that may be required for full performance and completion of the contract documents. On the basis of the scope shown herein, Contractor shall furnish and install all parts required for the proper execution and completion of the work. Any item included will require the Contractor to furnish and install all parts needed for a complete installation.

- 1.6 GUARANTEE AND WARRANTY 1.6.2 PERMANENT TURF GRASS SEED
- All work in this Section shall be guaranteed against any and all defects in workmanship and materials appearing within a period of one (1) year after final completion of all site work and acceptance of the work by the Owner. Contractor shall replace, without additional expense to the Owner, any materials and workmanship that show defects within said period, with finished and new materials.

Evaluate establishment of permanent turf grass seed for percent survivability thirty days prior to the end of the first complete growing season and prior to the PRE-SEEDING AND PLANTING WEED CONROL release of any maintenance or guarantee obligations.

Success Criteria: 75% of seeded area shall be covered with vegetation. 25% of the vegetation shall be permanent matrix, and less than 5% invasive species. 50% of the species within the permanent matrix shall be present.

- 1.7 MAINTENANCE REQUIREMENTS
- 1.7.2 PERMANENT TURF GRASS SEED
- Initial Maintenance Service: Provide maintenance by skilled employees of landscape Installer. Maintain as required in below.

Begin maintenance of lawns immediately after each area is planted and continue until acceptable lawn is established, but not less than 60 days after date of Substantial Completion

season. Maintenance includes watering, fertilizing, weeding, mowing, trimming, replanting, and other operations to provide a uniform, weed free, smooth lawn. Ensure cover crop seed germinates within two (2) weeks of planting. If dormant seeding, ensure cover crop germinates at the start of the growing season.

Thoroughly water all permanently seeded areas after the seed has germinated for a period of one (1) month. Apply a total rate of 120 gallons per 1000 square feet (12.2 m3/1000 m2) in at least two (2) applications spread over seven (7) days. Apply the water under pressure with a nozzle that produces a spray that will not dislodge the seed, seedlings, or mulch material. If ½ inch (13 mm) or greater of rainfall has occurred within the first seven (7) day period, the Installer may delay or omit the secondary application, depending on weather conditions.

Once established, turf grass height shall be maintained between two (2) and six (6) inches or as specified by the Owner. Not more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings.

CONSTRUCTION, SOILS AND TOPDRESSING SPECIFICATIONS

Grading and excavation of the native stormwater basins shall be completed in accordance with the engineering plans in order to achieve the requisite storage volumes.

The following specifications shall be followed to minimize impacts to the naturalized areas and provide a suitable medium for native vegetation establishment:

- All areas to be planted or seeded with native vegetation shall be over-excavated a minimum of 1 foot below final grade to allow for the placement of topdress material, unless a one-foot thick topsoil layer is present following excavation to proposed final grade.
- 2. Topdress material for the proposed naturalized vegetation areas shall originate from on-site. These soils are adequate to promote native vegetation establishment. If additional topdress material is needed, the topdress material shall contain an organic matter content of 3% or more and a clay content of 27% or less.
- Wheel-based vehicles (scrapers, endloaders, etc.) shall not be used for topdressing work. Only low ground pressure wide-track equipment (quadtrack tractor, wide track dozer, backhoe, or approved by Engineer) shall haul, move and spread topdress material.
- 4. Following the 1-foot of topdress placement, the surface shall be thoroughly disked using a small farm type disc (not a large construction disc) and/or Harley rake. Topdress material shall not be handled or the surface disked when wet.
- No wheeled traffic shall occur in the naturalized planting areas after the final disking is complete, with the exception of a small farm type tractor if used for seeding.
- 6. All construction activities in the naturalized areas must be done under dry conditions.

PLANTING ZONES

Selection of the plant species in the stormwater basins are based on their suitability to the anticipated soils and hydrologic conditions following construction. Native seed mixes shall be planted on the slopes of all the stormwater basins and native plant plugs shall be installed in the basin bottoms of the three basins identified on the Planting Plan. The Planting Plan is designed with the management constraints of an active railroad facility in mind. The seed mixes consist of lower stature fast establishing species that can compete with non-native and invasive early successional species. The Basic Mesic Prairie Seed mix has forb species that exhibit a resistance to aminopyralid, a broadleaf selective herbicide (Milestone® Herbicide) to allow for easier management of large naturalized areas.

Wet Prairie Seed Mix. A wet prairie seed mix, a mix that contains native grasses, sedges, rushes, and forbs shall be installed at the NWL of all stormwater basins and existing ponds up approximately four feet up the slope to as depicted on the Plan to accommodate hydraulic bounce following precipitation events. Following seeding activities erosion control blanket (i.e. North American Green S75BN or comparable) shall be installed to stabilize the seed prior to cover crop germination and establishment of the permanent plant species. Blanket shall be secured with staples according to the manufacture's specifications.

Basic Mesic Prairie Seed Mix. A mesic prairie seed mix, a mix that contains native grasses, sedges and forbs will be installed on the newly graded slopes of the majority of the stormwater basins as depicted on the Planting Plan. This seed mix contains fast establishing native species that exhibit a resistance to aminopyralid to allow for easier management of large areas as this herbicide can be boom sprayed to target non-native/invasive species and will not harm grass species and has limited effects on the chosen forb species. Additionally, this herbicide can act as a pre-emergent by reducing germination rates of many weed species following application which will help with management in the more active areas of the rail facility. Following seeding activities erosion control blanket (i.e. North American Green S75 or comparable) shall be installed to stabilize the seed prior to cover crop germination and establishment of the permanent plant species. Blanket shall be secured with staples according to the manufacture's specifications.

Shallow Emergent Plug Mix. The shallow emergent plug mix shall be installed in the basin bottoms of the three stormwater facilities shown on the Planting Plan. Installing native plant plugs in these highly visible basins will improve the aesthetic appeal of the basins as well as provide greater habitat. The shallow emergent zone is designed 6-inches below the NWL and will likely be inundated for most of the growing season. The plug mix identifies shallow water species that shall be installed along the shoreline or in any shallower areas as a result of grading. These species are identified with and asterisk. A total of 4,000 emergent plant plugs shall be installed per acre within this zone under suitable hydrologic conditions during spring (May 15 - August 1).

1. The seeding contractor shall furnish, transport, and install the native seed mixes as specified for the respective areas shown on the Planting Plan.

- 2. Seeding activities of the permanent matrices shall be performed after the seed bed has been properly prepared, as applicable, between November 1 after the first frost and ending when snow cover exceeds 2-inches in depth or areas are covered with ice and June 15th of the following year.
- 3. If construction activities are finished outside the permanent seeding window, the area can be stabilized with a temporary cover crop or permanent seeded with a supplemental seeding during the prescribed window the following year
- 4. Seed shall be surface sown with a broadcast seeder and lightly raked in or with a native drop seeder.
- 5. All seed sources shall be within a 200-mile radius of the project site and be true to name and variety.
- Seeding shall only occur in areas that will receive erosion blanket installation within 48 hours and/or prior to forecasted rain.
- the seed lot. Seed supplied to the site shall contain documentation of PLS testing and, if required, adjustment of the seed weights to provide 100% PLS standards. If rounding is required during PLS adjustment calculations, the adjustment shall always be rounded up. Minimum PLS percentage for any species shall be 70%.
- 8. All seed shall be furnished in sealed containers. Seed that has become wet (unless as properly intended as a result of stratification), moldy, or otherwise damaged in transit or storage shall not be acceptable.
- 9. Over-seeding or re-planting may be necessary for compliance with the performance section of this document.

EMERGENT PLANTING SPECIFICATIONS

- The planting contractor shall furnish, transport and install all container grown plants for all planting zones as specified on plans.
- 2. Herbaceous planting activities shall be performed no earlier than May 15th and no later than August 1st under favorable conditions (i.e., proper
- 3. All plugs shall be container grown in open bottom pots with the following minimum dimensions: 2 3/8 inches square by 3-inches deep or a minimum root area of 11 cubic inches. At time of planting, all plant plugs shall have minimum shoot heights of 12-inches and well-developed root systems that hold planting soil together when removed from the container. Soil saturation shall be maintained for all container plants until installation.
- 4. Plant material shall not be provided as dormant (i.e., sprouted tubers, sprouted rhizomes or bare root) unless specified in the planting plan.

Any areas within the mesic prairie or emergent planting zones that are not disturbed as a result of grading activities shall be treated for non-native invasive species including but not limited to: reed canary grass (Phalaris arundinacea), cattails (Typha sp.), common reed (Phragmites australis) and purple loosestrife (Lythrum salicaria) prior to any seeding or planting activities. Additionally, if following grading the native areas lie fallow long enough for non-native species to establish, they shall be treated prior to seeding or planting.

1. Following any herbicide applications, allow 10-14 days prior to cultivating for seed bed preparation. If weed growth persists after the initial application, reapply herbicide and delay cultivation for at least 10 days.

EROSION CONTROL BLANKET SPECIFICATIONS

If full maintenance period has not elapsed before the end of planting season, or if lawn is not fully established, continue maintenance during the next planting

North American Green (NAG) S75 BioNet shall be installed over all seeding areas (mesic prairie) as shown on the Plan. The blanket shall be installed within 48 hours and/or prior to forecasted rain, so no seeded area remains unprotected. Therefore, the area seeded shall be based on whatever can be blanketed within 48 hours. Installation of all erosion control materials shall be in accordance with the manufacturer's specifications.

PREDATOR CONTROL

A predator control system may be needed to help achieve the site goals and performance standards by discouraging herbivores such as but not limited to geese, muskrats, and carp from consuming and uprooting newly planted native plugs. If predation is anticipated or noticed following plant installation it is the responsibility of the installation contractor to protect the plant which may include installing predator control fencing

- The materials shall include: 1-inch X 1-inch X 4-foot wood stakes with one end pointed, chicken wire fencing fabric or wire hardware cloth with mesh openings not to exceed 2-inches, 6-inch wire landscape staples, masons string and UV rated zip ties.
- 2. All areas receiving native plant plugs shall be protected by a predator control structure. The fence, consisting of three-foot-high chicken wire fence mounted securely on 1-inch X 1-inch X 4-foot wood stakes in such a manner that one foot of wood stake with pointed end will extend below the fence fabric. The wood stakes will be no greater than 6 feet apart and installed approximately one foot deep into the soil so that the bottom of the fence fabric rests firmly on the soil surface. This fence shall be installed in conjunction with site seeding and native plug installation.
- 3. It is the responsibility of the installation contractor to remove the predator control system once the native plants have established and/or once the performance standards are met and sign off is achieved.

MANAGEMENT & MONITORING

It is the responsibility of landscape contractor to install and maintain the naturalized portions of the site in accordance with the Planting Plan. The duration of maintenance and monitoring following installation is three years for all naturalized area or until standards are met.

Proper management is critical for successful establishment of the proposed plant communities. Periodic mowing and selective herbicide application are commonly used as management techniques for natural plant communities.

Table 1: Non-Native and Invasive Species

The invasive species that require control include, but are not limited to, the following species provided in Table 1.

American Silver-Berry (<i>Elaeagnus commutata</i>)	Japanese Honeysuckle (<i>Lonicera japonica</i>)		
Asian Bittersweet (<i>Celastrus orbiculatus</i>)	Japanese Hop (<i>Humulus japonica</i>)		
Garden Bird's-Foot-Trefoil (<i>Lotus corniculatus</i>)	Japanese-Knotweed (<i>Reynoutria japonica</i>)		
Black Locust (<i>Robinia pseudoacacia</i>)	Japanese Stilt Grass (<i>Microstegium vimineum</i>)		
Bull Thistle (Cirsium vulgare)	Jetbead (<i>Rhodotypos scandens</i>)		
Lesser Burrdock (<i>Arctium minus</i>)	Leafy Spurge (<i>Euphorbia esula</i>)		
Canadian Goldenrod (Solidago canadensis)	Littleleaf Linden (<i>Tilia cordata</i>)		
Canadian Thistle (<i>Cirsium arvense</i>)	Morrow's Honeysuckle (Lonicera morrowii)		
Cat-Tail (<i>Typha</i> spp.)	Nodding Plumeless-Thistle (Carduus nutans)		
Chinese Yam (<i>Discorea oppositifolia</i>)	Privet (Ligustrum spp.)		
Common Reed (<i>Phragmites australis</i>)	Purple Loosestrife (<i>Lythrum salicaria</i>)		
Crack Willow (Salix fragilis)	Ragweed (<i>Ambrosia</i> spp.)		
Creeping-Jenny (<i>Lysimachia nummularia</i>)	Rambler Rose (<i>Rosa multiflora</i>)		
Crownvetch (Securigera varia)	Red/White Clover (<i>Trifollium</i> spp.)		
Curly Pondweed (<i>Potamageton crispus</i>)	Reed Canary Grass (Phalaris arundinacea)		
Dames Rocket (<i>Hesperis matronalis</i>)	Russian Olive (<i>Elaeagnus angustifolia)</i>		
Eurasian-Buttercup (<i>Ficaria verna</i>)	Sandbar Willow (<i>Salix interio</i> r)		
Eurasian Water-Milfoil (<i>Myriophyllum spicatum</i>)	Seaside Goldenrod (<i>Solidago sempevirens</i>)		
European Barberry (<i>Berberis vulgaris</i>)	Showy Fly-Honeysuckle (<i>Lonicera x bella</i>)		
European Buckthorn (<i>Rhamnus cathartica</i>)	Spotted knapweed (Centaurea stoebe subsp. micranthos)		
Garlic-Mustard (<i>Alliaria petiolata</i>)	Tall Goldenrod (Solidago altissima)		
Giant Hogweed (Heracleum mantegazzianum)	Teasel (<i>Dipsacus</i> spp.)		
Glossy False Buckthorn (<i>Frangula alnus</i>)	Twinsisters (<i>Lonicera tatarica</i>)		
Greater Flowering-Rush (<i>Butomus umbellatus</i>)	Watercress (Nasturtium officinale)		
Japanese Barberry (<i>Berberis thunbergii</i>)	Wild Parsnip (<i>Pastinaca sativa</i>)		
Japanese Bristle Grass (Setaria faberi)	Yellow Sweet-Clover (<i>Melilotus officinalis</i>)		

First and Second Year Mowing. During the first two growing seasons after installing the mesic prairie seed mixes on the basin slopes, mowing or selective weed whipping the vegetation should occur as needed to maintain a plant height of no greater than 18 to 20 inches. To accomplish this, cutting the vegetation to a height of 6 to 9 inches several times during the growing season will be needed. Cutting the vegetation will aid new plant growth as to allow more sunlight to reach young prairie seedlings. Cutting the vegetation will also aid in the control of annual weeds, which can undermine seeding efforts. Selective weed whipping can be used instead of a mower if conditions are unfit (i.e., too wet or no access) for a tractor or if only small, isolated areas of undesirable vegetation require cutting. In addition, cutting the inflorescence prior to seed set of many biennial species including teasel and sweet clover is an effective control method that can be utilized.

Herbicide Application. Management of the vegetation in all areas should include selective application of herbicide to control aggressive plant species, such as, but not limited to, reed canary grass (Phalaris arundinacea), cattails (Typha spp), purple loosestrife (Lythrum salicaria), common reed (Phragmites australis), thistles (Cirsium spp.), teasel (Dipsacus spp.), and sweet clovers (Melilotus spp.). These species, including others, can displace desirable species, thereby reducing floristic diversity in the naturalized areas. Controlling these species will be required to achieve the performance standards for the

Natural regeneration of cattails, common reed and reed canary grass in the stormwater basin will likely occur following construction. A pre-planting control shall be conducted if any of these species or other weeds are present. Hand pulling cattails can be conducted when the cattails are small enough to ensure that the entire root is removed. Off-site disposal of cattails will be required. Larger cattails will require herbicide applications. Cattail and common reed coverage can be no greater than 5% in aggregate prior to plant installation. Aggressive control of these species will be required after planting throughout the management period to ensure plant establishment. After planting, the hand-wick application method to control these species will likely be required.

A determination regarding the type of herbicide to be used should be made when it is known which nuisance species are present on the site. Depending on the target weed species, a selective herbicide may be available. The choice of herbicide and timing of herbicide application will be made by a trained, experienced professional based on the target weed species and conditions. Care should be taken to monitor site weather conditions to limit herbicide drift, overspray, and ensure it is rainfast.

guideline on the suggested schedule and target species for the application periods:

It is recommended that a minimum of four annual weed control application periods are conducted throughout the three-year period. Below is a general

- Application Period One (early spring April/May): problematic species such as, but not limited to, reed canary grass, red/white clover, cool season
- Application Period Two (late spring to early summer May/June): problematic species such as, but not limited to, teasel, white/yellow sweet clover,
- Application Period Three (mid to late summer July/August): problematic species such as, but not limited to, tall goldenrod, hairy aster, ragweed,
- Application Period Four (late summer and fall September/October): problematic species such as, but not limited to, reed canary grass, thistle, common reed, red/white clover, cool season grasses.

Long-Term Mowing in Lieu of Prescribed Burning. Due to the nature of the site prescribed burning is not feasible and thus end of growing season mowing can be conducted instead. Mowing the vegetation to a height of 6 inches at the end of the growing season around November should be conducted annually after the vegetation has established (after year 2). This end of growing season mowing will partially replace some of the benefits provided by fire. Mowing shall only occur under dry or frozen ground conditions, so that soil disturbance from wheel ruts is avoided.

PERFORMANCE STANDARDS

Performance standards are established for projects involving naturalized areas so that the relative success may be evaluated. If the performance standards are not achieved by the end of the management and monitoring program, the landscape contractor is responsible for correction of any deficiencies through further management activities, which may include replanting.

Native Performance Standards (three-years):

- 1. All proposed native vegetated areas shall achieve eighty-five percent (85%) cover within three months of seed installation or within three months of the start of the growing season if dormant seeded.
- 2. All proposed native vegetated areas shall achieve a minimum FQI of fifteen (15) within the three (3) year monitoring period.
- All proposed native mesic prairie slopes shall not be dominated or contain cumulatively more than 25 percent (25%) cover by non-native or invasive species include, but are not limited to those identified in Table 1
- 4. The three emergent plug planting zones shall achieve greater than fifty percent (50%) cover and have less than twenty percent (20%) cover of cattails and common reed cumulatively.

MONITORING

Vegetation Monitoring. Annual vegetation monitoring in the naturalized areas shall be conducted for three years beginning immediately following planting/seeding and until standards are achieved. Monitoring shall be conducted using the meander method and ocular estimation. Transects or quadrat sampling may need to be implemented in areas where percent cover is too difficult to estimate by eye.

Annual Monitoring Report. An annual maintenance and monitoring report shall be submitted CN by February 15th of each year during the three-year period or until performance standards are met.

The annual report must include a review of site progression towards meeting the performance standards and propose any necessary remedial actions. More specifically, the monitoring report must contain the following information, which will be based on data collected during the monitoring inspections.

- 1. A summary of management activities conducted during the year. 2. Representative photographs depicting general site conditions.
- Absolute vegetative coverage estimates as needed to evaluate the performance standards.
- 4. Floristic inventory encompassing all naturalized areas and associated FQI 5. Evaluate the status of the areas relative to the performance standards
- 6. Recommend management activities for the following year to address any issues related to site success.

V3 Companies 7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com

REVISIONS DATEBY SOUTHERN REGION

APPROVALS

CHICAGO DIVISION ILLINOIS RIVER SUB MINOOKA / CHANNAHON

WISCONSIN CENTRAL LTD.

CHICAGO LOGISTICS HUB

LANDSCAPE SPECIFICATIONS

OFFICE OF DESIGN & CONSTRUCTION DRAWN BY: KT | SCALE: 1'' = 50'DWG NO: L1.30

SHEET CHECKED BY: EK DATE: 6 MAY 25 FILE: 20 OF 20 N:\2023\230299\Drawings\ACAD\LA\D0_18\Sheet Drawings\230299_L1.0_Landscape Plan.dwg 5/9/2025