

December 21, 2021

**Pemiscot County Port Authority
2353 N. State Hwy D
Hayti, MO 63851**

BIDDING ADDENDUM 6

**For work titled:
Site Improvements
Caruthersville, MO
Project Number: 19-0025
Agency Project Number:**

TO ALL BIDDERS

GENERAL NOTES

This addendum is issued for the purpose of clarifying the intent of the contract documents or for making necessary corrections, deletions, and/or additions to the documents on all items of discrepancy raised up to the time of the issuance of this addendum.

Each bidder is hereby instructed and authorized to incorporate into his proposal the instructions contained in this addendum. This addendum forms a part of the bidding and contract documents and modifies the original bidding documents, dated November 1, 2021 . Acknowledge receipt of this addendum in space provided on Bid Form. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

This addendum consists of two (2) - 8 1/2" x 11" page

PROJECT PLANS

Clarification: These plans have been updated with additional contour labels for clarity.

All other terms and conditions of the Project Manual and Drawings shall remain unchanged.

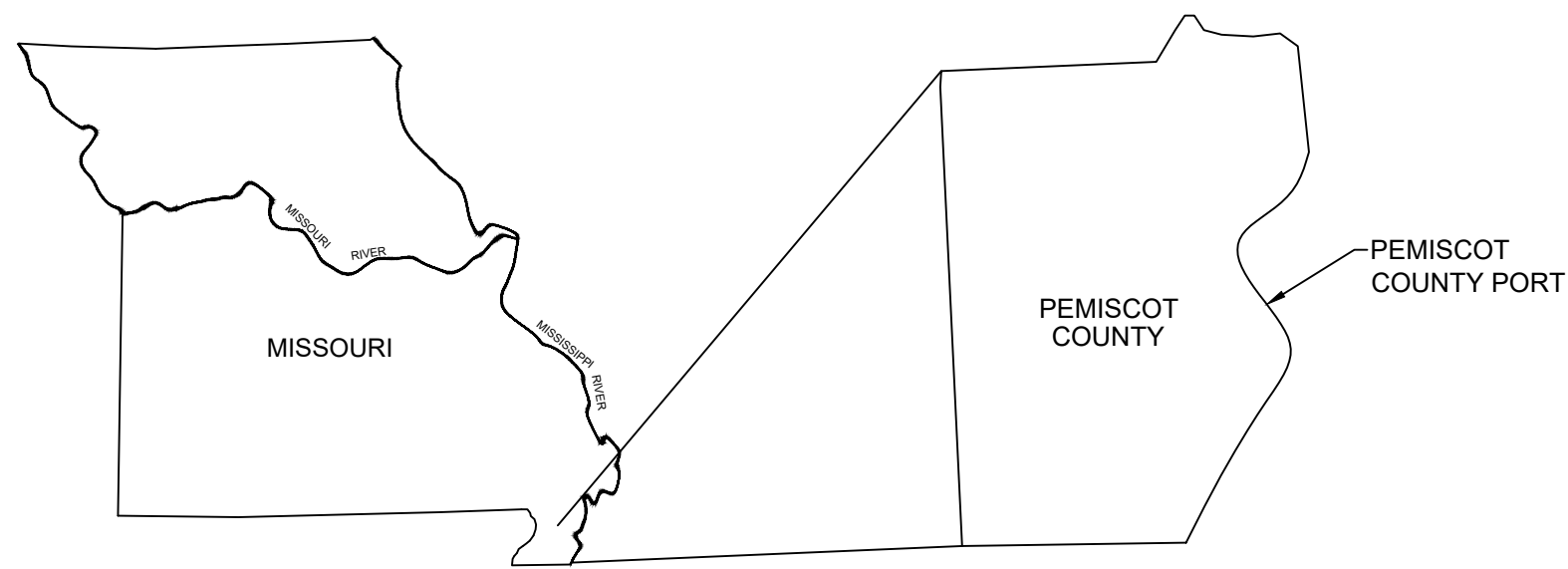
END OF ADDENDUM 6

SITE IMPROVEMENTS

PEMISCOT COUNTY PORT AUTHORITY

CARUTHERSVILLE, MISSOURI

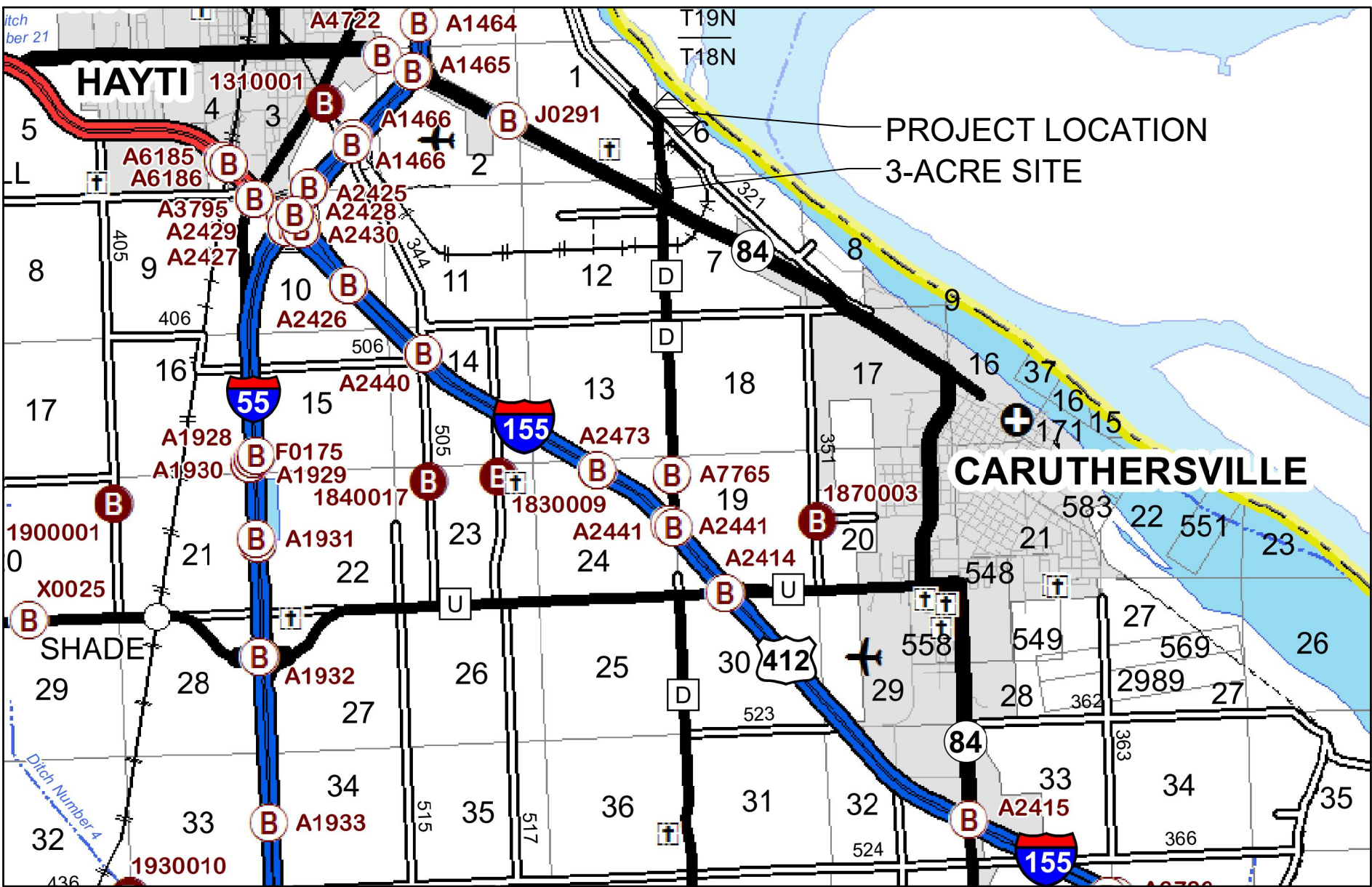
OCTOBER 2021 (REVISED DECEMBER 2021)



APPLICABLE STANDARDS

All equipment, devices, apparatus, systems and installations shall be entirely suitable and safe for each intended application (during construction, adjusting, testing and use) and be in full compliance with applicable standards, rules, requirements, regulations, codes, statutes, ordinances, etc. of municipal, county, & state governments, owner's insurance company, local utilities, OSHA and labor regulations.

Owner/Contractor(s) shall be responsible for all construction activities and for compliance with applicable local, state and federal laws and regulations concerning information not specifically shown.



LOCATION MAP

0 1 MILE 2 MILE
SCALE: 1" = 1 MILE

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PROFESSIONAL ENGINEER

EDA AWARD NUMBER: 05-79-06035



Know what's below.
Call before you dig.



GAVIN RISLEY
PROFESSIONAL ENGINEER
STATE OF MISSOURI NO. PE 2013025031
LICENSE EXPIRES 12/31/23

OCTOBER 1, 2021

DATE

SET NO.

PROJECT NO. 19-0025

FULL SIZED PLANS HAVE BEEN PREPARED USING STANDARD SCALES.
REDUCED SIZED PLANS MAY NOT CONFORM TO STANDARD SCALES.
USE GRAPHIC SCALES WHEN MAKING MEASUREMENTS ON REDUCED PLANS.

KLINGNER
& ASSOCIATES, P.C.

Engineers • Architects • Surveyors

Hannibal, Missouri
4510 Paris Gravel Road
573.221.0020
Quincy, IL
Burlington, IA
Pella, IA
Columbia, MO

CERTIFICATE OF AUTHORITY # E 000866

SHEET 1 OF 18 SHEETS

3. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
2. ANY DISCREPANCIES BETWEEN SPECIFICATIONS, DRAWINGS, AND/OR SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
3. ALL AREAS DESIGNATED TO REMAIN UNDISTURBED SHALL BE PROTECTED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING THE LOCATION OF ALL PROPOSED IMPROVEMENTS, INCLUDING ROUGH AND FINISHED ELEVATIONS AND ALL OTHER PROPOSED IMPROVEMENTS INDICATED ON THE DRAWINGS.
5. THE CONTRACTOR SHALL VERIFY THAT ALL APPLICABLE LOCAL, STATE, & FEDERAL CODES ARE FOLLOWED. ALL APPLICABLE LOCAL AND STATE NOTIFICATIONS AND PERMITS SHALL BE ACQUIRED PRIOR TO CONSTRUCTION, INCLUDING ALL NECESSARY UTILITY CONNECTION PERMITS FROM THE RESPECTIVE UTILITIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND SERVICES REQUIRED DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL REFERENCE POINTS, BENCHMARKS, MONUMENTS, STAKES, AND PROPERTY CORNERS DURING CONSTRUCTION. REPLACEMENT OF LOST REFERENCE POINTS SHALL BE AT THE CONTRACTORS EXPENSE.
8. REMOVE ALL STRUCTURES, FOUNDATIONS, WALLS, PAVEMENTS, AND ALL OTHER ITEMS IN CONFLICT WITH PROPOSED IMPROVEMENTS IN ACCORDANCE WITH THE SPECIFICATIONS.
9. REFERENCES TO "STANDARD SPECIFICATIONS" SHALL MEAN THE MISSOURI DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", LATEST ADDITION.
10. THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTOR'S EMPLOYEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. NO WORK SHALL BE PERFORMED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT OWNER APPROVAL.
12. SITE CLEAN-UP SHALL BE PERFORMED ON A DAILY BASIS. SIDEWALKS, PARKING LOTS, ROADWAYS, AND THE PROJECT SITE SHALL BE KEPT CLEAN AT ALL TIMES. CONTROL DUST IN AND AROUND ALL WORK AND STAGING AREAS.
13. ALL OPEN EXCAVATIONS SHALL BE PROTECTED.
14. MAINTAIN POSITIVE DRAINAGE ON THE SITE THROUGHOUT THE PROJECT DURATION.
15. IF A DISCREPANCY IN THE SPOT ELEVATIONS IS NOTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTING. IF THERE IS A DISCREPANCY BETWEEN THE SPOT ELEVATIONS AND CONTOURS, THE CONTOURS SHALL GOVERN.
16. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL PERMIT REQUIREMENTS. WORK ON OR ADJACENT TO MODOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MODOT PERMIT.
17. THE WORK ON OR ADJACENT TO MISSOURI ROUTE D SHALL UTILIZE MODOT TRAFFIC CONTROL STANDARDS AND BE APPROVED BY THE STATE OF MISSOURI PRIOR TO CONSTRUCTION.

1. PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, LATEST EDITION.
2. PROOF-ROLL SUBGRADE WITH A MINIMUM 25 TON G.V.W. TRUCK TO IDENTIFY AREAS OF SOFT OR UNSTABLE SUBGRADE. REMOVE AND REPLACE UNSTABLE AREAS WITH SUITABLE COMPACTED MATERIALS.
3. PAVEMENT MARKING SHALL NOT BEGIN UNTIL PAVEMENT SURFACE HAS BEEN POWER BROOMED AND HAND SWEEP AS NECESSARY TO REMOVE LOOSE MATERIALS AND DIRT; AND NOT BEFORE ADEQUATE CURING TIME HAS BEEN OBTAINED ON THE PAVEMENT.
4. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, OR PROPERTY LINES UNLESS OTHERWISE NOTED. ALL RADII ARE TO EDGE OF PAVEMENT.

1. TOPSOIL SHALL BE STRIPPED TO A DEPTH OF 6 INCHES WITHIN PROPOSED PAVEMENT AREAS AND STOCKPILED ON SITE FOR USE IN FINAL GRADING (COORDINATE WITH OWNER).
2. TOPSOIL SHALL BE LOAMY IN NATURE, FREE FROM HARD CLODS, STIFF CLAY, SOD, STONES, ROOTS, STICKS, AND OTHER DEBRIS OVER 1 INCH IN SIZE. TOPSOIL SHALL BE FREE OF TOXIC MATERIALS AND SHALL HAVE A pH RANGE BETWEEN 5.5 AND 7.0.
3. ALL EXCESS MATERIALS NOT USED FOR CONSTRUCTION OF THE PROJECT SHALL BE DISPOSED OFF SITE BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE.
4. PROPOSED CONTOURS ARE INTENDED TO PROVIDE A MIN. 0.7% SLOPE IN PAVEMENT AREAS AND 1% IN TURFED AREAS. CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING A SMOOTH UNIFORM DRAINING SURFACE THAT DOES NOT CREATE PONDING WATER OR SHARP BREAKS. CONTOURS OR ELEVATIONS THAT WILL NOT PROVIDE SUCH SURFACE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
5. FINAL ELEVATIONS INDICATED ARE THE FINISHED SURFACE ELEVATIONS, WHETHER GRASS, CONCRETE, PAVEMENT, OR MULCH. THE CONTRACTOR SHALL COORDINATE SUBGRADE ELEVATIONS TO ALLOW FOR PAVEMENT, CONCRETE OR MULCH DEPTHS.
6. ALL DISTURBED AREAS NOT WITHIN PAVEMENT AREAS SHALL BE SEEDED PER THE SPECIFICATIONS. THE AREAS INDICATED TO BE SEEDED ON THIS PLAN ARE ESTIMATED DISTURBED AREAS. DISTURBED AREAS OUTSIDE OF THOSE INDICATED SHALL BE SEEDED REGARDLESS OF THE LIMITS INDICATED.
7. SLOPES 4:1 AND STEEPER SHALL RECEIVE A TEMPORARY EROSION CONTROL BLANKET. PROVIDING PROTECTION FOR UP TO 12 MONTHS IN ACCORDANCE WITH SECTION 806 OF THE MDOT STANDARD SPECIFICATIONS.

1. EROSION CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, THE DETAILS IN THESE PLANS, AND THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STANDARDS AND REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL.
2. THE EROSION CONTROL SHOWN ON THIS SET OF PLANS SHALL BE CONSIDERED THE MINIMUM ACCEPTABLE FOR THIS PROJECT. THERE MAY BE ADDITIONAL EROSION CONTROL REQUIRED DUE TO THE VARIOUS CONSTRUCTION TECHNIQUES, WHICH MAY BE USED. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING AND MAINTAINING ALL THE RUNOFF FROM THE SITE, IN A MANNER WHICH KEEPS ALL SILT ON SITE.
3. A LAND DISTURBANCE PERMIT HAS BEEN ACQUIRED SINCE MORE THAN 1 ACRE OF LAND WILL BE DISTURBED BY GRADING OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL IN ACCORDANCE WITH THE PERMIT.
4. TEMPORARY AND PERMANENT SEEDING SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS.

1. THE LOCATION OF EXISTING UTILITIES IN CONSTRUCTION AREAS SHALL BE FIELD VERIFIED BY THE CONTRACTOR BY CONTACTING THE MISSOURI ONE CALL SYSTEM, INC. OR THE INDIVIDUAL UTILITIES NOT PARTICIPATING IN THIS SYSTEM. EXISTING UTILITIES TO REMAIN SHALL BE PROTECTED. ANY REPAIR OR RELOCATION REQUIRED, AS A RESULT OF DAMAGE BY CONSTRUCTION ACTIVITIES SHALL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PAY UTILITY PERMIT AND/OR INSPECTION FEES.
2. UTILITY TRENCHES WITHIN PAVEMENT AREAS SHALL BE BACKFILLED WITH APPROVED COMPACTED GRANULAR BACKFILL.
3. ADJUST ALL VALVES, MANHOLES, CASTINGS, GAS VENTS, ETC., TO MATCH THE NEW SURFACE. ADJUSTMENT SHALL BE COORDINATED WITH THE UTILITY COMPANIES AND THE COST FOR ALL ADJUSTMENTS SHALL BE INCIDENTAL TO THE CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. REPAIR ANY DAMAGE TO SAID STRUCTURES AND APPURTENANCES THAT OCCUR DURING CONSTRUCTION.
4. THE DRAWINGS INDICATE THE BEST KNOWLEDGE OF THE OWNER AND ENGINEER/ARCHITECT ON THE GENERAL LOCATION AND NATURE OF THE EXISTING AND OR PROPOSED UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION. EXPLORATORY EXCAVATIONS AT THE SITE TO DETERMINE INSITU LOCATIONS WERE NOT CONDUCTED. QUALITY LEVEL C IN ACCORDANCE WITH C1A/ASCE 38-02, STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA, WAS UTILIZED. REGARDLESS OF THE LEVEL OF INVESTIGATION, THE UTILITIES SHOWN SHOULD NOT BE CONSIDERED A WARRANTY OR GUARANTEE OF ACTUAL PRESENCE OR LOCATION AND THE CONTRACTOR REMAINS RESPONSIBLE FOR THE LOCATION, VERIFICATION, AND PROPER NOTIFICATION OF POTENTIAL UTILITIES.

QUALITY LEVEL A - PROVIDES THE HIGHEST LEVEL OF ACCURACY. BY LOCATING OR POTHOLING UTILITIES IN ADDITION TO QUALITY LEVELS B, C, AND D TASKS. THE LOCATED UTILITY INFRASTRUCTURE IS SURVEYED AND MAPPED TO DEVELOP PLAN AND PROFILE INFORMATION.

QUALITY LEVEL B - INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND RECORDING THE INFORMATION THROUGH A SURVEY METHOD. IN ADDITION TO QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL C - INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. IN ADDITION TO QUALITY LEVEL D TASKS

QUALITY LEVEL D - INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS, THAT MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICE MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASE, CONSTRUCTION PLANS, ETC. DATABASES, CONSTRUCTION PLANS, ETC.

FL	FLOWLINE ELEVATION
TC	TOP OF CURB ELEVATION
GL	GUTTER LINE ELEVATION
TG	TOP OF GRATE ELEVATION
STA	STATION
FES	FLARED END SECTION
SWI	STORM WATER INLET
FFE	FINISH FLOOR ELEVATION
HP	HIGH POINT
LP	LOW POINT
TW	TOP OF WALL ELEVATION
BW	BOTTOM OF WALL ELEVATION
DS	DOWNSPOUT
HWM	ORDINARY HIGH WATER MARK
EP	EDGE OF PAVEMENT ELEVATION
(M)	MATCH EXISTING ELEVATION
N.I.C.	NOT IN CONTRACT

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		RIGHT OF WAY LINE
		CENTERLINE
		EASEMENT
		BUILDING SETBACK
		CONSTRUCTION LIMITS
		FENCE LINE
		CHAIN LINK FENCE
		FENCE W/ SQUARE POSTS
		STREAM
		STRUCTURE
		PAVEMENT MARKINGS
		EDGE OF PAVEMENT
		CURB AND GUTTER
		RAILROAD TRACKS
		WATER LINE
		FIRE PROTECTION
		GAS LINE
		OVERHEAD ELECTRIC
		UNDERGROUND ELECTRIC
		OVERHEAD TELEPHONE
		UNDERGROUND TELEPHONE
		CABLE TELEVISION
		FIBER OPTIC
		COMMUNICATION LINE
		STORM SEWER
		SANITARY SEWER
		FORCE MAIN
		COMBINED SEWER
		IRRIGATION SYSTEM
		MAST ARM SIGNAL (3 SIGNALS)
		MAST ARM SIGNALS (2 SIGNALS)
		UTILITY TRAFFIC SIGN
		SIGN
		MANHOLE
		STORM WATER INLET
		CATCH BASIN
		CLEANOUT
		CULVERT
		BOX CULVERT
		WATER VALVE
		FIRE HYDRANT
		POST INDICATOR VALVE
		WATER METER
		GAS VALVE
		GAS METER
		TELEPHONE PEDESTAL
		CABLE TV PEDESTAL
		ELECTRIC METER
		UTILITY POLE
		LIGHT STANDARD
		LIGHT POLE
		GUY WIRE
		SURVEY MARKER
		SUMMIT / HIGH POINT
		CONTOURS
		INDEX CONTOURS
		DIRECTION OF DRAINAGE
		SPOT ELEVATION
		DECIDUOUS SHRUB
		DECIDUOUS TREE
		CONIFEROUS SHRUB
		CONIFEROUS TREE

1. RAILROAD SPIKE IN POWER POLE NEAR LEVEE
CROSSING IN MIDDLE OF DREDGE SITE - ELEV 282.82

UTILITY INFORMATION IS FOR THE CONVENIENCE OF THE CONTRACTOR. BEFORE CONSTRUCTION BEGINS THE CONTRACTOR SHALL CONTACT MISSOURI ONE CALL SYSTEM, INC. AT 811 OR 1-800-344-7483 AND THE INDIVIDUAL UTILITIES NOT INCLUDED IN THIS SYSTEM FOR THE LOCATION OF ALL EXISTING UTILITIES.



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Call before you dig.



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REVISION HISTORY			
MARK	DESCRIPTION	DATE	APPR
1	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD

Klingner & Associates, P.C. - Engineer
Missouri State Certificate
of Authority # E-000866



GAVIN RISLEY-ENGINEER
MO# 2013025031

SITE IMPROVEMENTS

PEMISCOT COUNTY PORT
AUTHORITY

CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34"

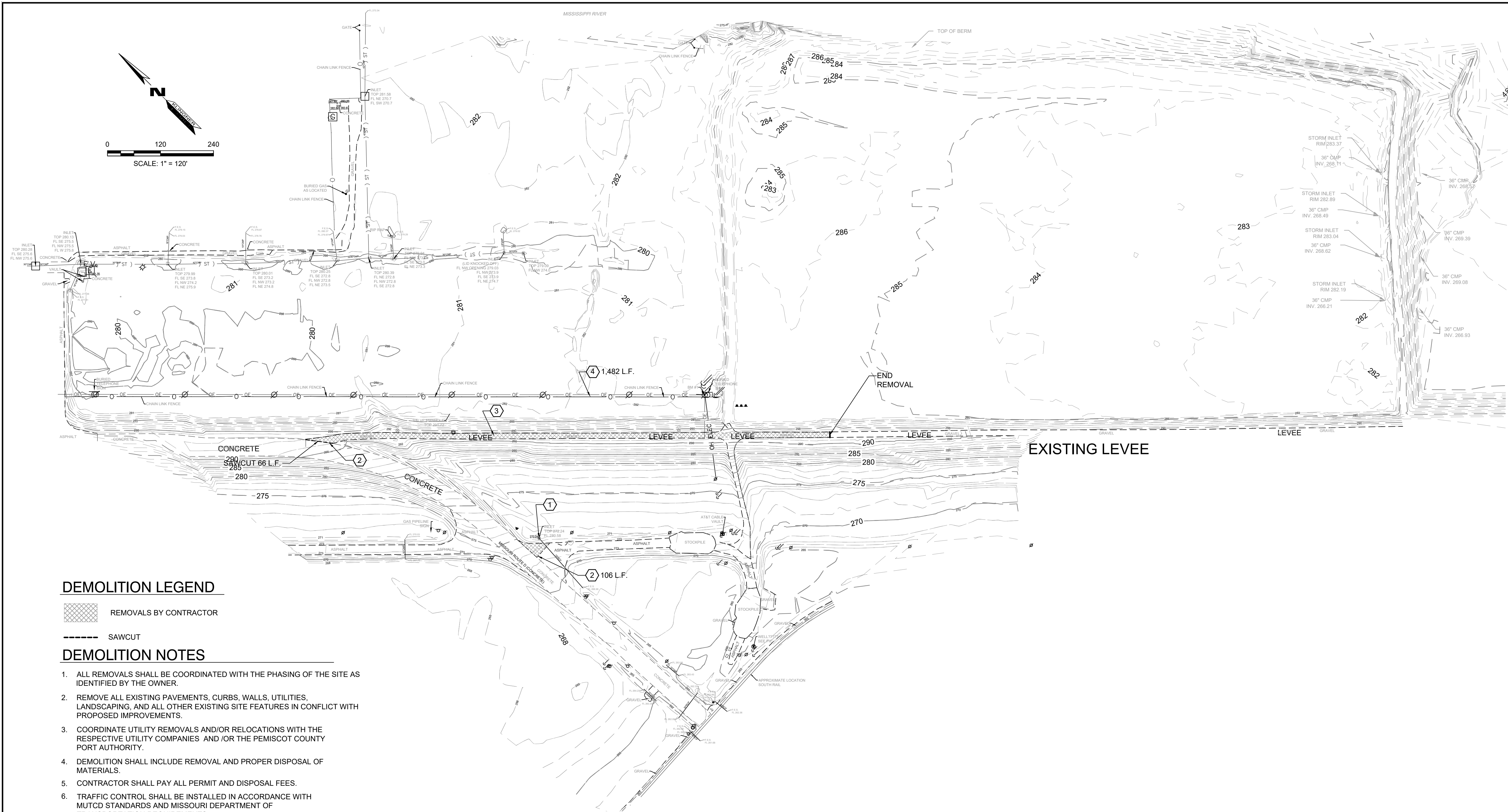
Full sized plans have been prepared using standard scales. Reduced size plans may not conform to standard scales.	
DESIGNED DCD	DRAWN DCD
FIELD ECB/MWJ	FIELD BOOK H21/19
CHECKED CSW	CHECK DATE 10/01/2021

SHEET TITLE

GENERAL NOTES & LEGEND

PROJECT NO.
19-0025
DRAWING ISSUED DATE:
10/01/2021
SHEET

C001



DEMOLITION LEGEND

- REMOVALS BY CONTRACTOR
- SAWCUT

DEMOLITION NOTES

- ALL REMOVALS SHALL BE COORDINATED WITH THE PHASING OF THE SITE AS IDENTIFIED BY THE OWNER.
- REMOVE ALL EXISTING PAVEMENTS, CURBS, WALLS, UTILITIES, LANDSCAPING, AND ALL OTHER EXISTING SITE FEATURES IN CONFLICT WITH PROPOSED IMPROVEMENTS.
- COORDINATE UTILITY REMOVALS AND/OR RELOCATIONS WITH THE RESPECTIVE UTILITY COMPANIES AND/OR THE PEMISCOT COUNTY PORT AUTHORITY.
- DEMOLITION SHALL INCLUDE REMOVAL AND PROPER DISPOSAL OF MATERIALS.
- CONTRACTOR SHALL PAY ALL PERMIT AND DISPOSAL FEES.
- TRAFFIC CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH MUTCD STANDARDS AND MISSOURI DEPARTMENT OF TRANSPORTATION REQUIREMENTS.
- SAFETY BARRIERS AND CONSTRUCTION FENCING SHALL BE INSTALLED AROUND WORK AREAS.

DEMOLITION KEY NOTES:

- REMOVE EXISTING INLET.
- REMOVE PAVEMENTS & BASE COURSES. SAWCUT AT REMOVAL LIMITS TO PROVIDE A UNIFORM EDGE.
- REMOVE AGGREGATE PAVEMENT.
- REMOVE EXISTING FENCE.

BENCHMARKS:

- RAILROAD SPIKE IN POWER POLE NEAR LEVEE CROSSING IN MIDDLE OF DREDGE SITE - ELEV 282.82

NOTE: EXISTING CONDITIONS TOPOGRAPHICAL SURVEY PROVIDED BY BFW ENGINEERING & TESTING, INC. DATED 11/19/2021.

KLINGNER & ASSOCIATES, P. C.
Engineers • Architects • Surveyors
Hannibal, Missouri
4510 Paris Gravel Road
Quincy, IL, Galesburg, IL
Burlington, IA, Pella, IA, Columbia, MO

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REVISION HISTORY			
MARK	DESCRIPTION	DATE	APPR
Δ	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD

Klingner & Associates, P.C. - Engineer
Missouri State Certificate
of Authority # E-000866

STATE OF MISSOURI
GAVIN H. RISLEY
NUMBER PE-2013025031
PROFESSIONAL ENGINEER
GAVIN RISLEY-ENGINEER
MO# 2013025031

SITE IMPROVEMENTS
PEMISCOT COUNTY PORT
AUTHORITY
CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34" <small>Full sized plans have been prepared using standard scales. Reduced size plans may not conform to standard scales.</small>	
DESIGNED DCD	DRAWN DCD
FIELD ECB/MWJ	FIELD BOOK h21119
CHECKED CSW	CHECK DATE 10/01/2021
SHEET TITLE EXISTING CONDITIONS & SITE DEMOLITION PLAN	
PROJECT NO. 19-0025	
DRAWING ISSUED DATE: 10/01/2021	
SHEET	
CD101	

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Klingner & Associates, P.C. - Engineer
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GAVIN RISLEY-ENGINEER
MO# 2013025031

SITE IMPROVEMENTS
PEMISCOT COUNTY PORT AUTHORITY
CARUTHERSVILLE, MO 63830

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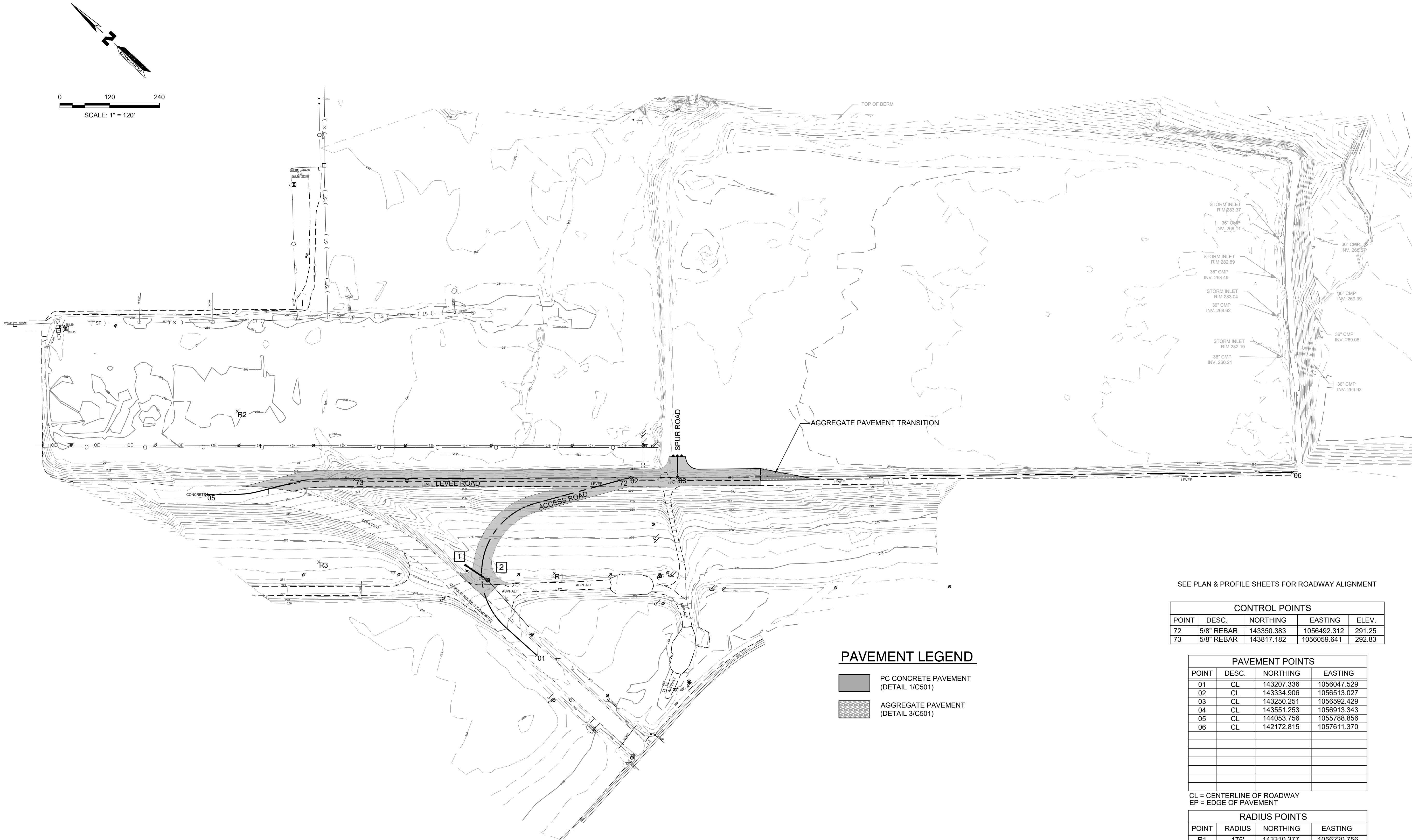
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FIELD ECB/MMWJ	FIELD BOOK H21/119
CHECKED CSW	CHECK DATE 10/01/2021

SHEET TITLE

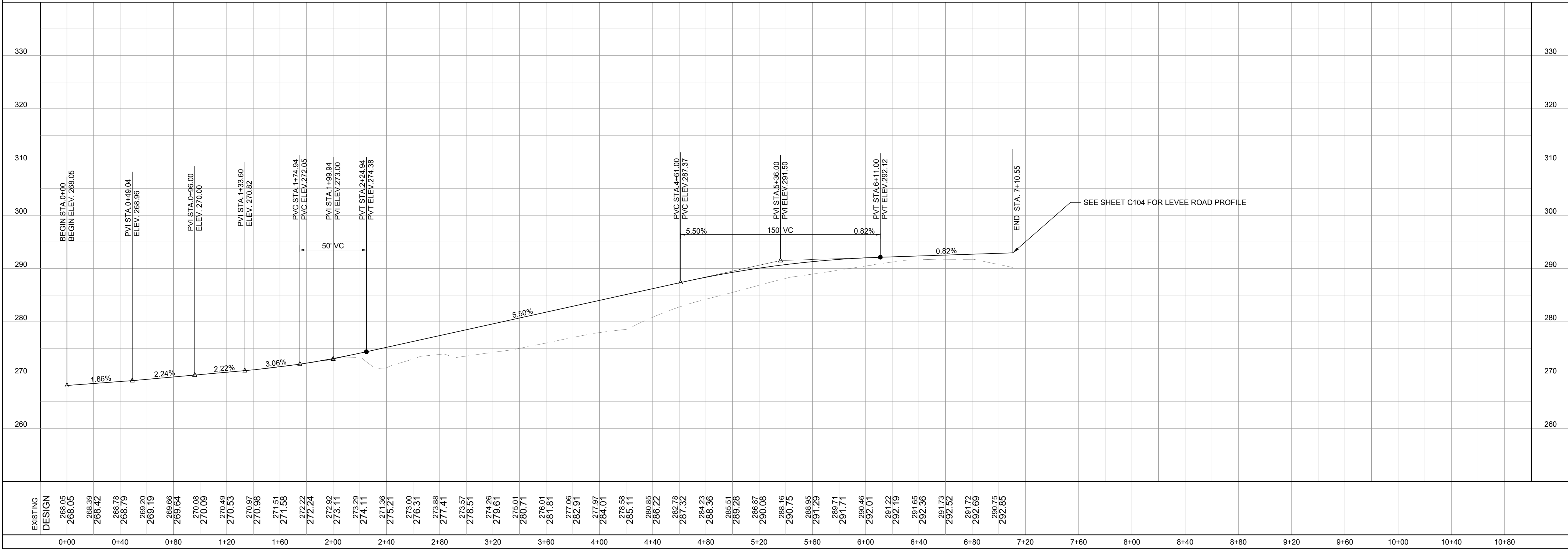
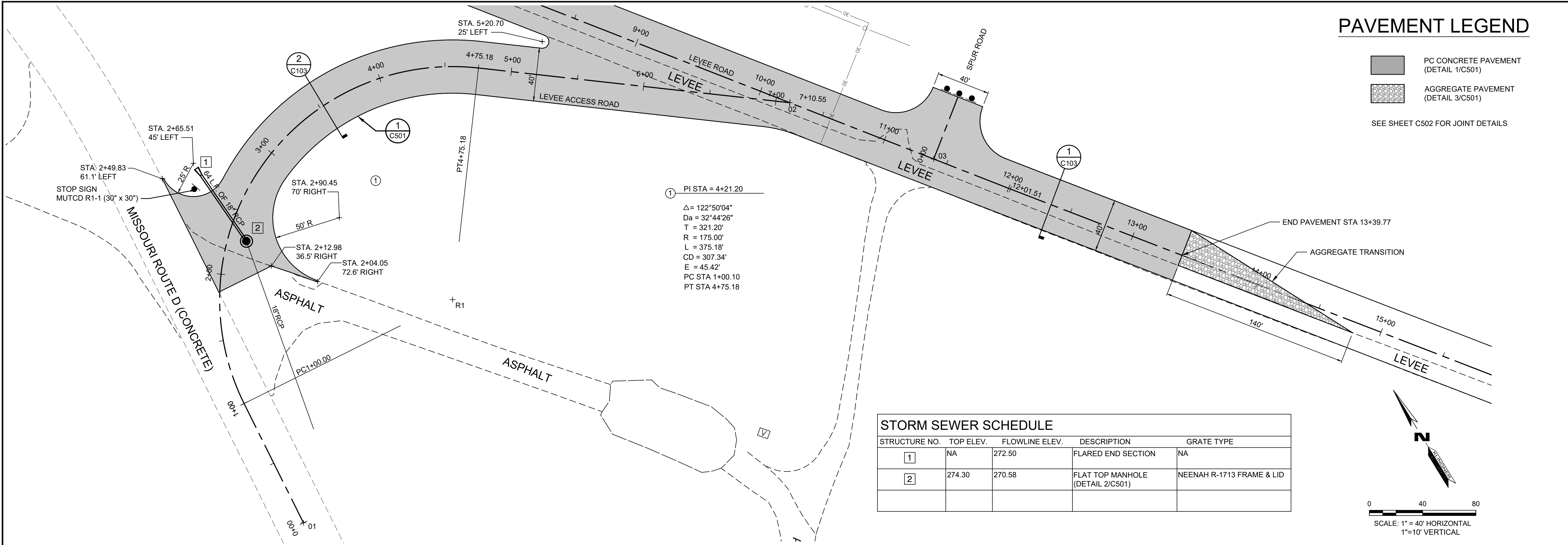
OVERALL SITE PLAN

PROJECT NO.
19-0025
DRAWING ISSUED DATE:
10/01/2021
SHEET

C101



BENCHMARKS:
1. RAILROAD SPIKE IN POWER POLE NEAR LEVEE CROSSING IN MIDDLE OF DREDGE SITE - ELEV 282.82



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REVISION HISTORY

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△	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD

Klingner & Associates, P.C. - Engineer
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of Authority # E-000866

STATE OF MISSOURI
GAVIN H. RISLEY
NUMBER
PE-2013025031
PROFESSIONAL ENGINEER
GAVIN RISLEY-ENGINEER
MOR 2013025031

SITE IMPROVEMENTS

PEMISCOT COUNTY PORT
AUTHORITY
CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34"
Full sized plans have been prepared using standard scales.
Reduced size plans may not conform to standard scales.

DESIGNED	DRAWN
DCD	DCD
FIELD	FIELD BOOK
ECB/MMWJ	h2/119
CHECKED	CHECK DATE
CSW	10/01/2021

SHEET TITLE

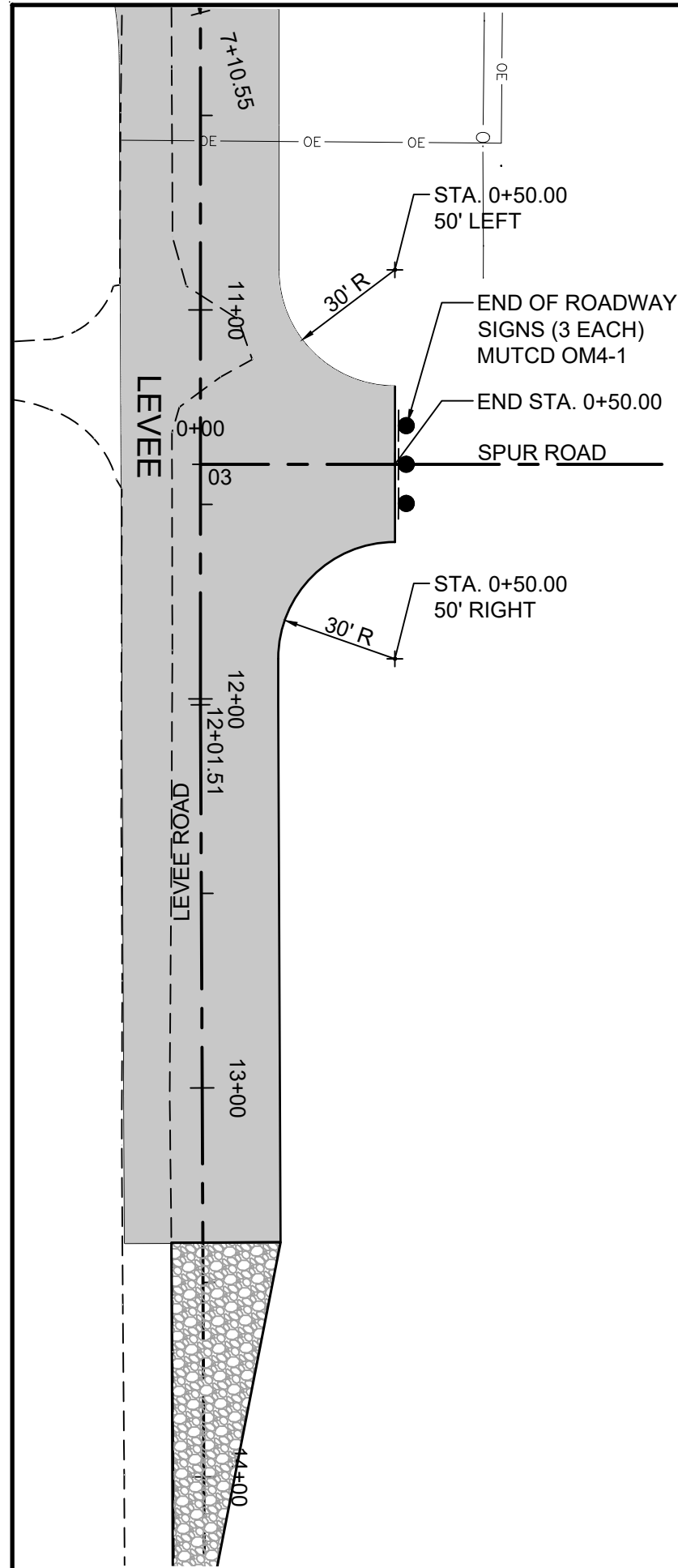
LEVEE
ACCESS ROAD PLAN
& PROFILE

PROJECT NO.
19-0025

DRAWING ISSUED DATE:
10/01/2021

SHEET

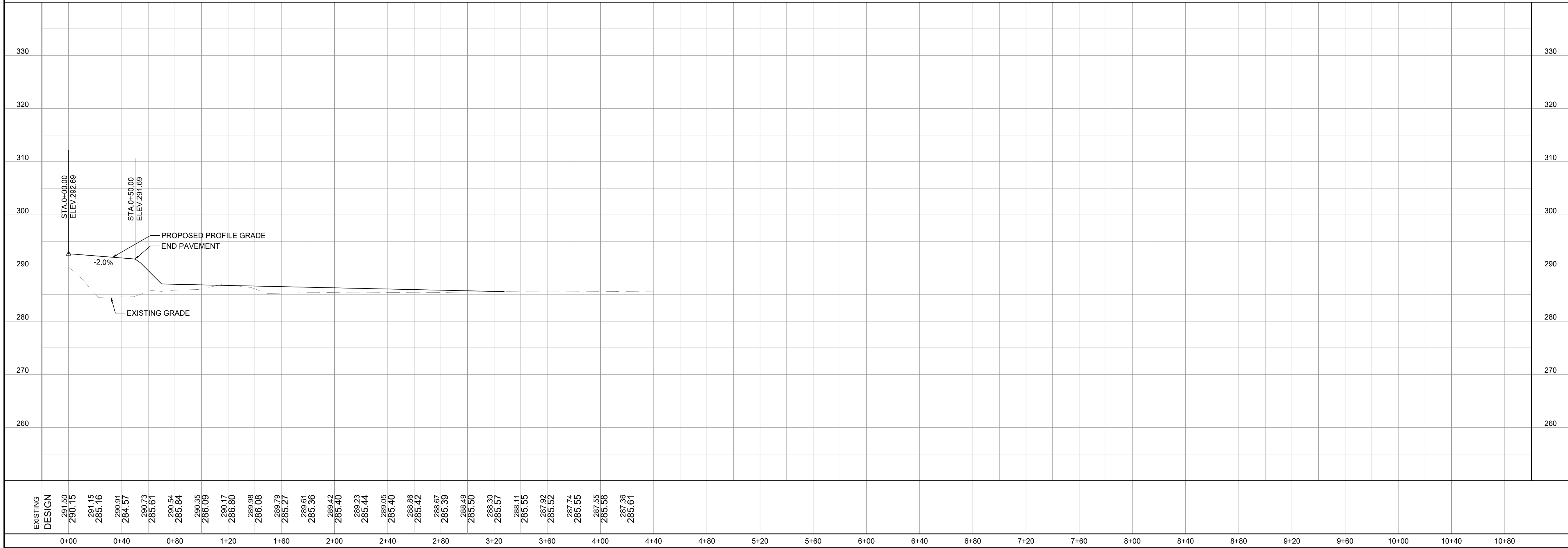
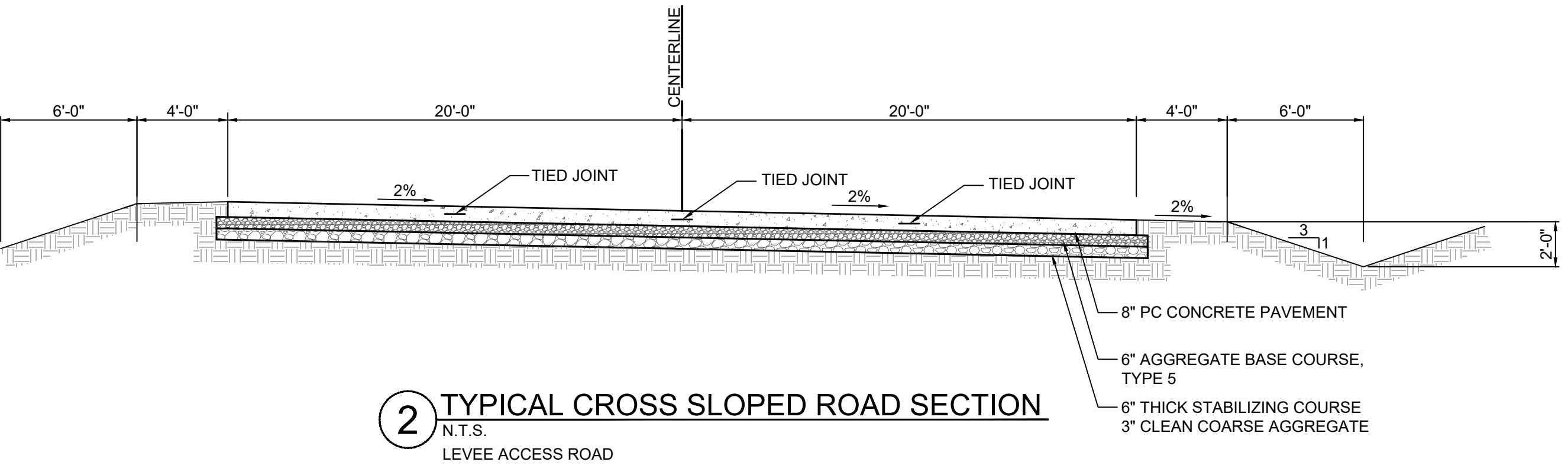
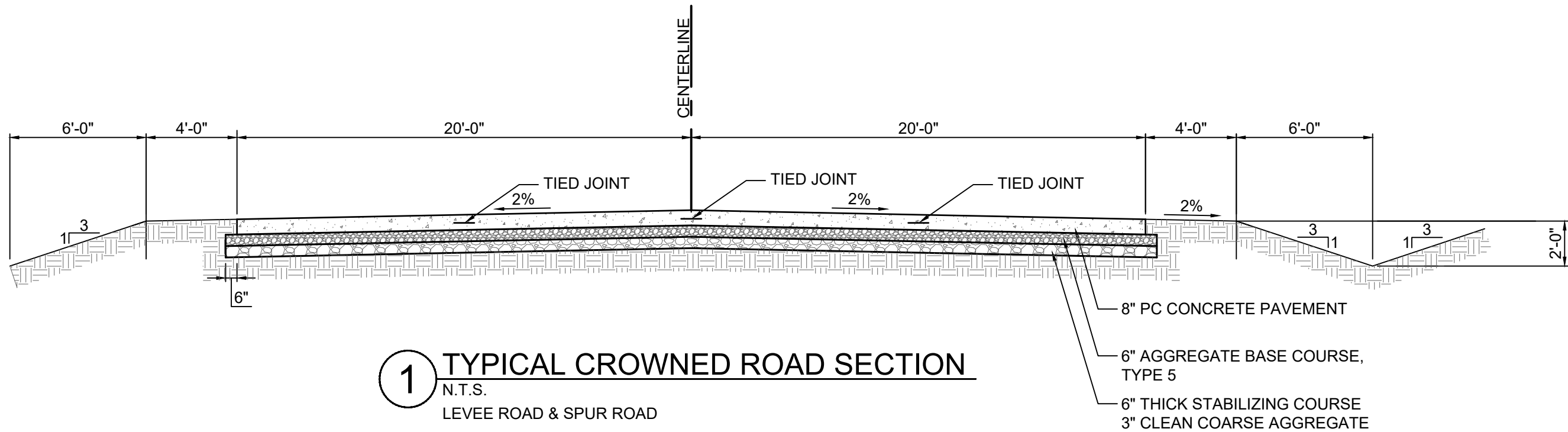
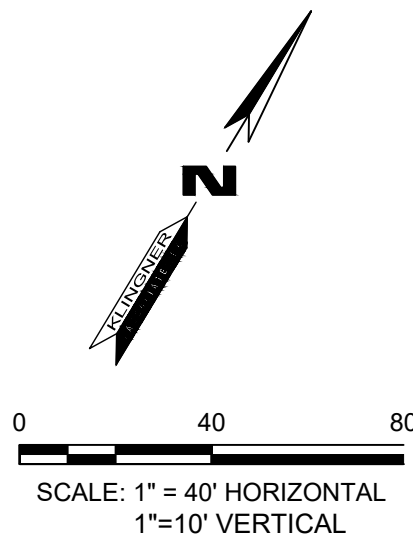
C102



PAVEMENT LEGEND

- PC CONCRETE PAVEMENT (DETAIL 1/C501)
- AGGREGATE PAVEMENT (DETAIL 3/C501)

SEE SHEET C502 FOR JOINT DETAILS



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PEMISCOT COUNTY PORT AUTHORITY
CARUTHERSVILLE, MO 63830

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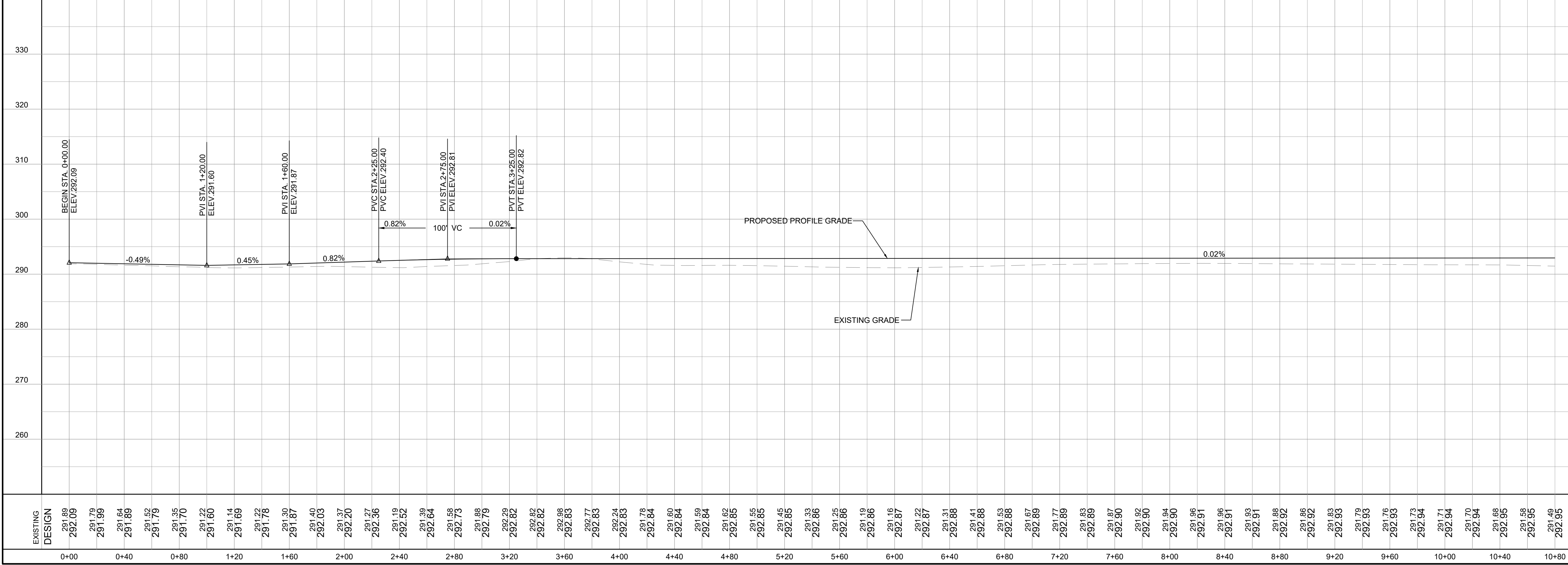
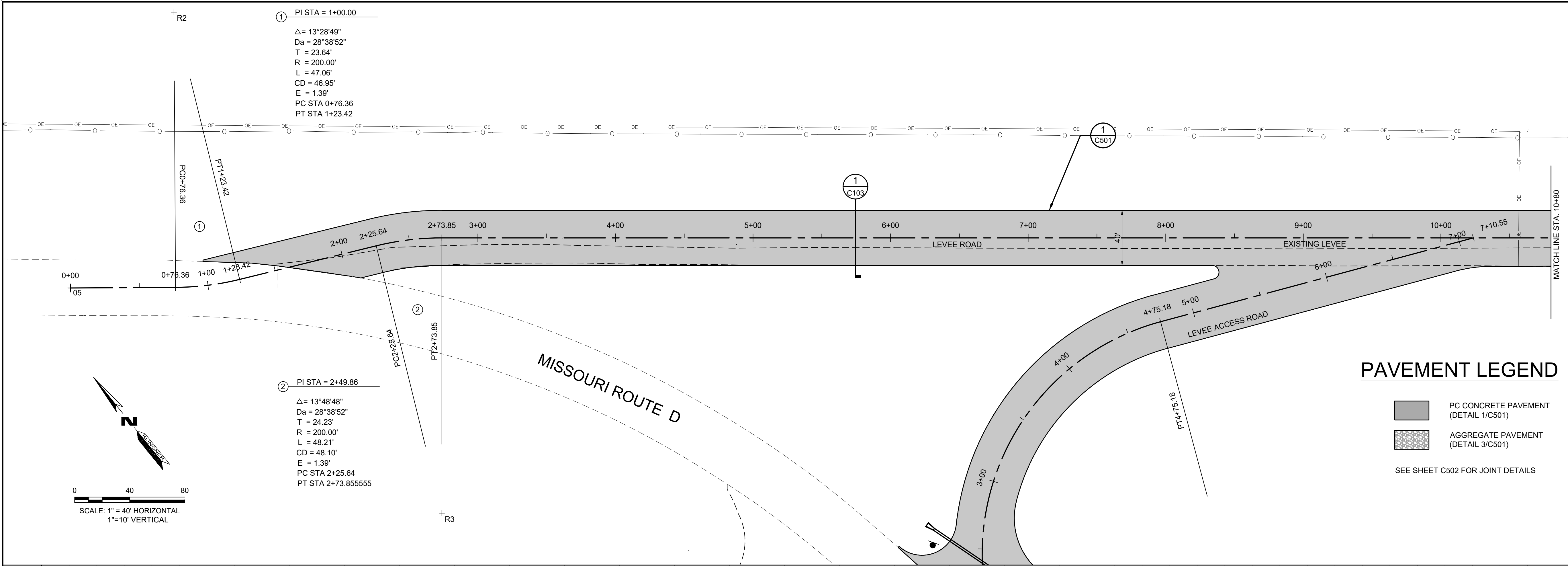
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FIELD ECB/MWJ	FIELD BOOK h2/1/19
CHECKED CSW	CHECK DATE 10/01/2021

SHEET TITLE

SPUR ROAD PLAN & PROFILE

PROJECT NO.
19-0025
DRAWING ISSUED DATE:
10/01/2021
SHEET

C103



PAVEMENT LEGEND

- PC CONCRETE PAVEMENT
(DETAIL 1/C501)
- AGGREGATE PAVEMENT
(DETAIL 3/C501)

SEE SHEET C502 FOR JOINT DETAILS

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MARK	DESCRIPTION	DATE	APPR
Δ	REVISE PLANS WITH UPDATED TOPG SURVEY	12/13/21	DCD

Klingner & Associates, P.C., - Engineer
Missouri State Certificate
of Authority # E-000866



SITE IMPROVEMENTS
PEMISCOT COUNTY PORT
AUTHORITY
CARUTHERSVILLE, MO 63830

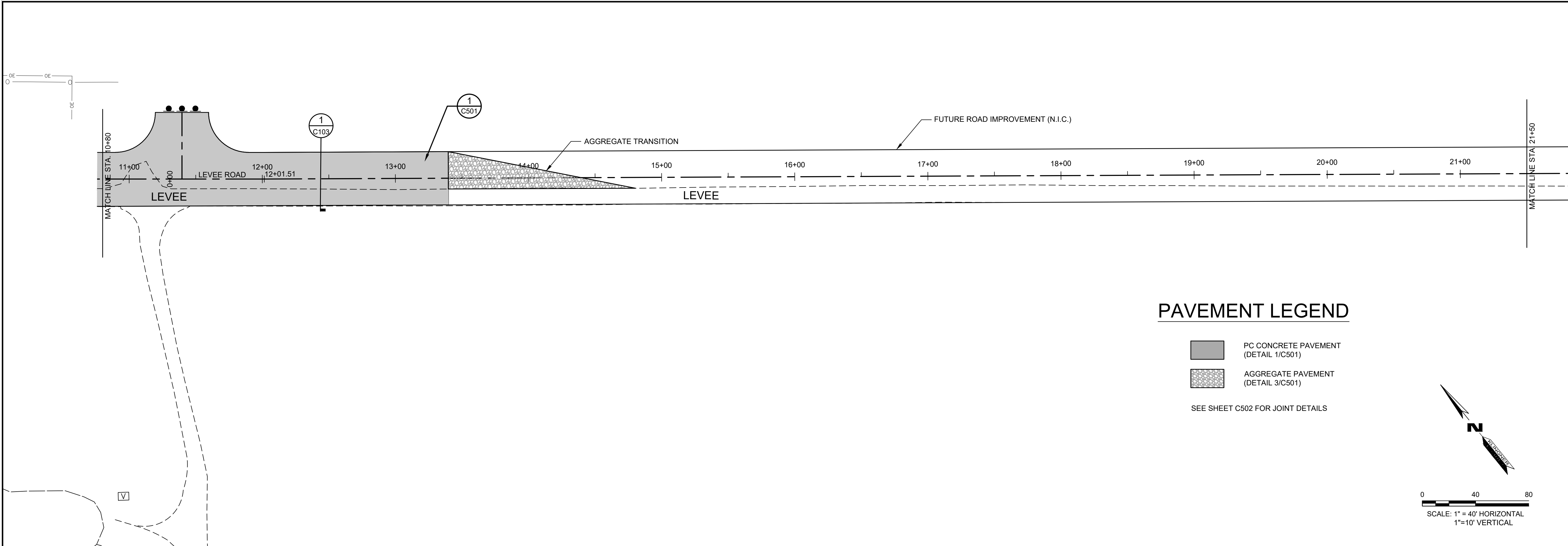
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Full sized plans have been prepared using standard scales.
Reduced size plans may not conform to standard scales.

DESIGNED DCD .	DRAWN DCD .
FIELD ECB/MMWJ h2/118	FIELD BOOK
CHECKED CSW .	CHECK DATE 10/01/2021

SHEET TITLE
LEVEE ROAD PLAN &
PROFILE STA. 0+00
TO 10+80

PROJECT NO.
19-0025
DRAWING ISSUED DATE:
10/01/2021
SHEET

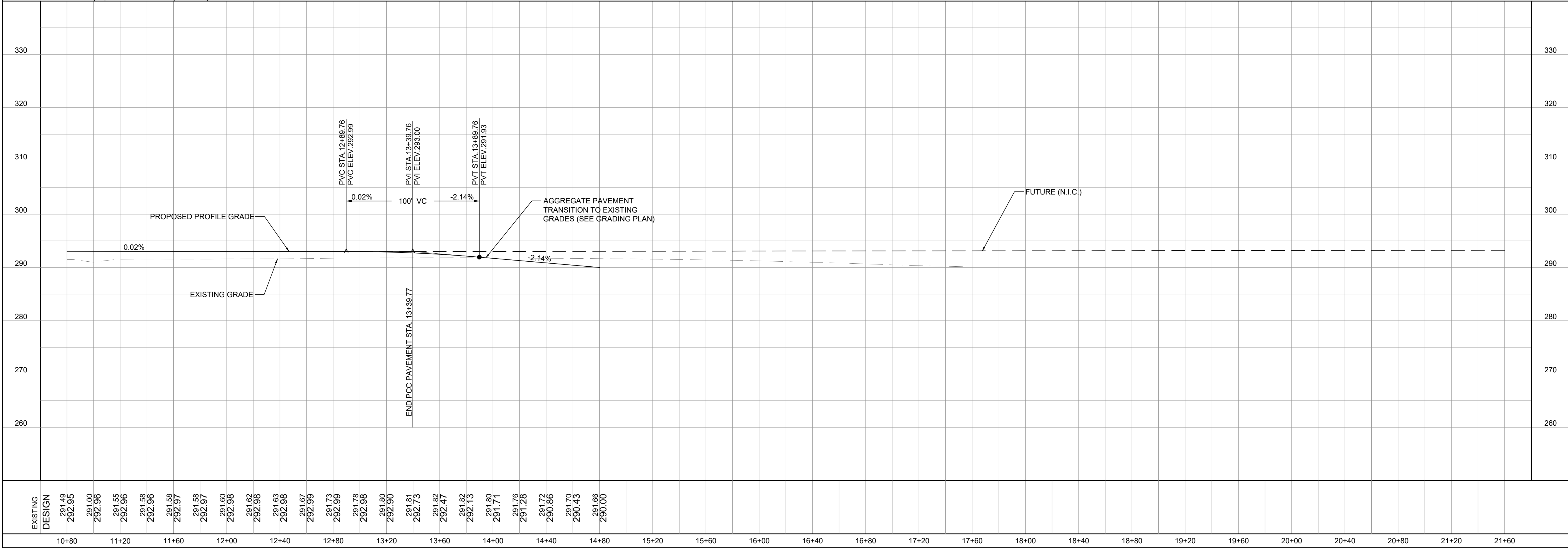
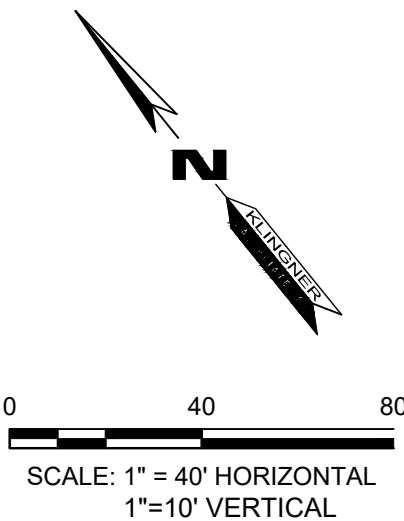
C104



PAVEMENT LEGEND

- PC CONCRETE PAVEMENT (DETAIL 1/C501)
- AGGREGATE PAVEMENT (DETAIL 3/C501)

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Missouri State Certificate
of Authority # E-000866



GAVIN RISLEY-ENGINEER
MOR 2013025031

SITE IMPROVEMENTS
PEMISCOT COUNTY PORT
AUTHORITY
CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34"
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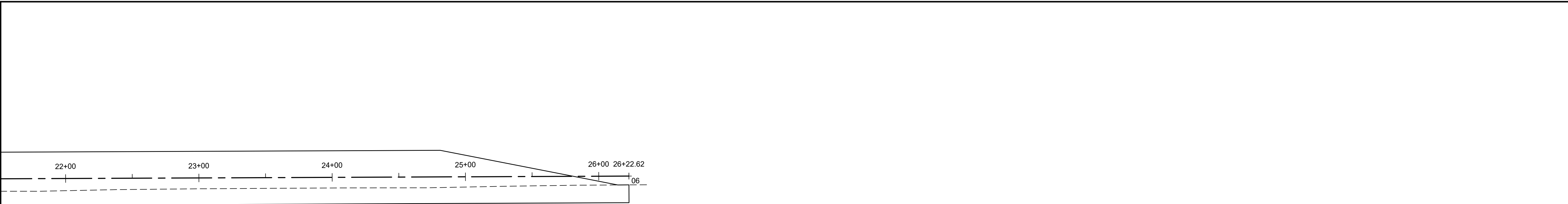
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FIELD ECB/MMWJ	FIELD BOOK h2/119
CHECKED CSW	CHECK DATE 10/01/2021

SHEET TITLE

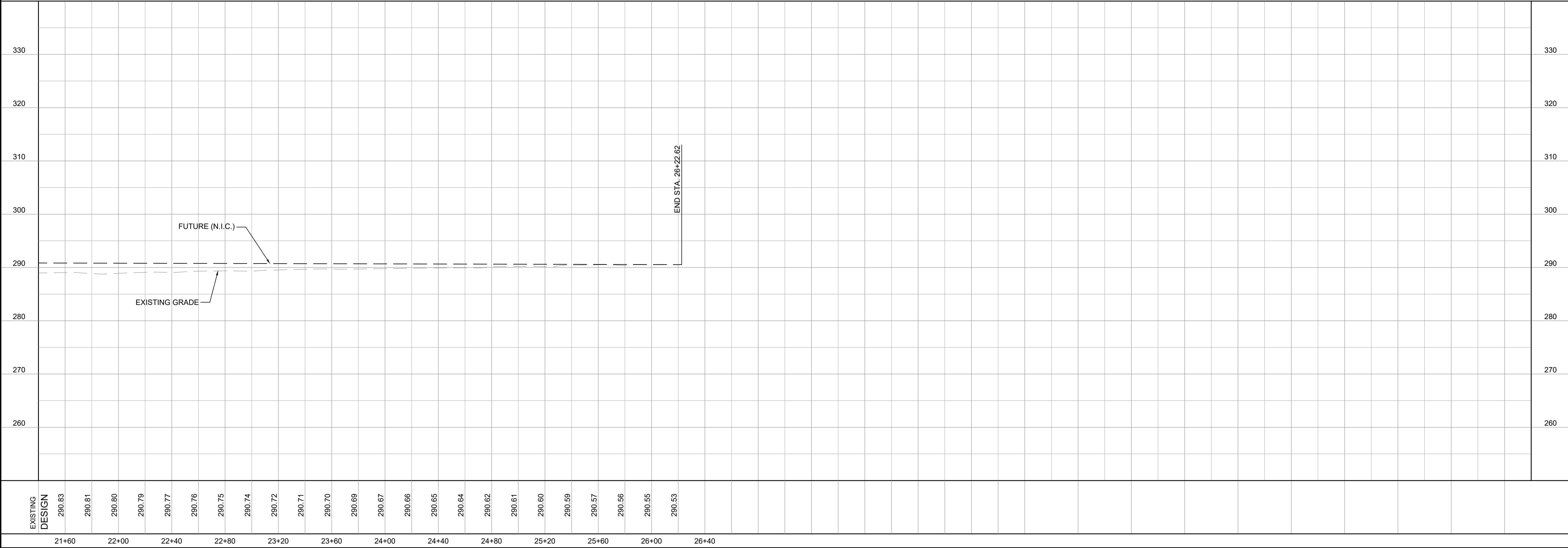
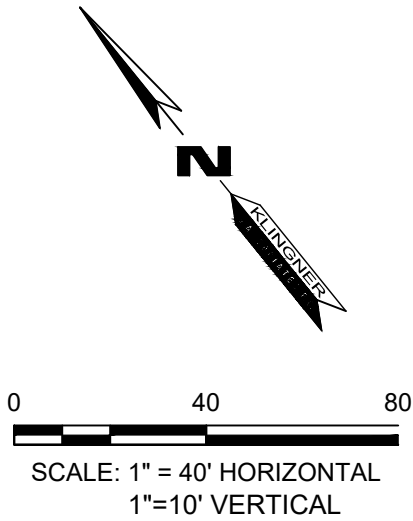
LEVEE ROAD PLAN &
PROFILE STA. 10+80
TO 21+60

PROJECT NO.
19-0025
DRAWING ISSUED DATE:
10/01/2021
SHEET

C105



FUTURE (N.I.C.)



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of Authority # E-000866

STATE OF MISSOURI

GAVIN H. RISLEY

NUMBER

PE-2013025031

PROFESSIONAL ENGINEER

GAVIN RISLEY-ENGINEER
MO# 2013025031

SITE IMPROVEMENTS

PEMISCOT COUNTY PORT
AUTHORITY

CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34"
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Reduced size plans may not conform to standard scales.

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FIELD ECB/MWJ	FIELD BOOK H2/119
CHECKED CSW	CHECK DATE 10/01/2021

SHEET TITLE

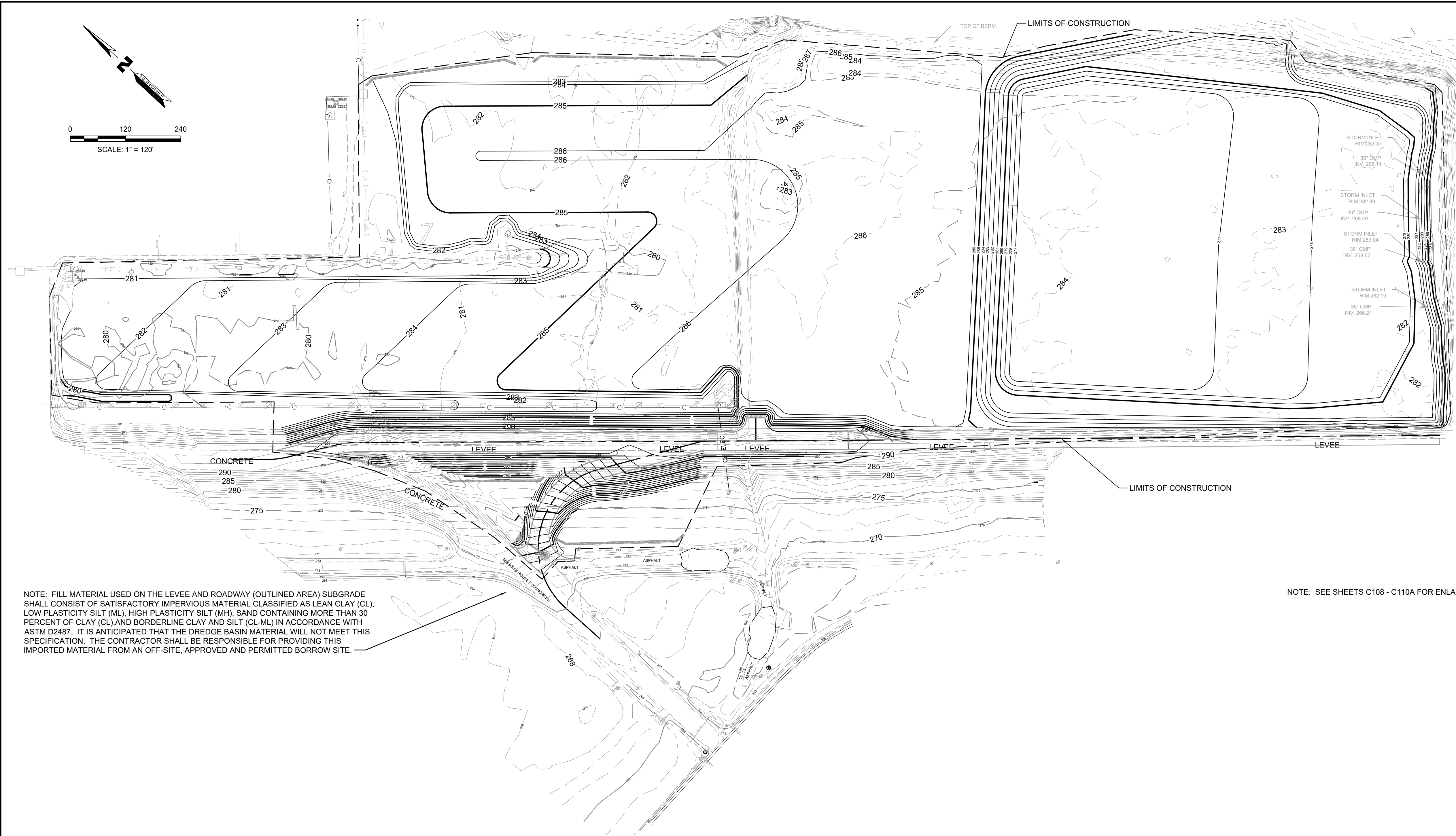
LEVEE ROAD PLAN &
PROFILE STA. 21+60
TO 26+22.62

PROJECT NO.
19-0025

DRAWING ISSUED DATE:
10/01/2021

SHEET

C106



NOTE: SEE SHEETS C108 - C110A FOR ENLARGED GRADING PLANS

NOTES

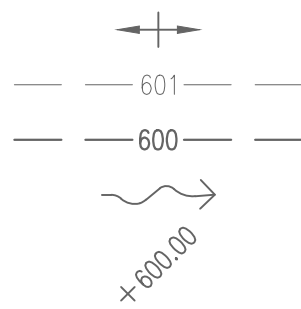
- SEE SHEETS C103 - C105 FOR ENLARGED GRADING PLANS.
- APPROXIMATE EARTHWORK VOLUMES:
 - PROPOSED FILL SITE: TOPSOIL STRIP & REPLACE: ±13,480 C.Y.
FILL ± 135,586 C.Y. (INCLUDES ROADWAY FILL)
 - DREDGE SITE BORROW: 135,586 (WITHOUT EXCESS FOR SHRINK)
- CONTOURS SHOWN FOR BORROW SITE WILL RESULT IN APPROXIMATELY 148,659 C.Y. (±9% EXCESS FOR SHRINK). THE LUMP SUM BID SHALL BE TO GRADE THE SITES TO THE ELEVATIONS SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BORROWING THE NECESSARY VOLUME (INCLUDING SHRINK) TO ACHIEVE THE PROPOSED ELEVATIONS. THE BORROW SITE DOES NOT HAVE TO BE EXCAVATED TO THE ELEVATIONS SHOWN IF ADEQUATE MATERIAL IS GENERATED TO ACHIEVE THE ELEVATIONS INDICATED ON THE SITES.

BENCHMARKS:

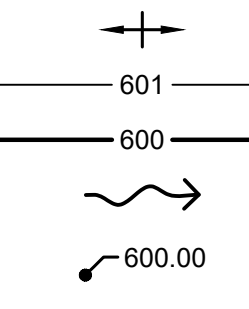
- RAILROAD SPIKE IN POWER POLE NEAR LEVEE CROSSING IN MIDDLE OF DREDGE SITE - ELEV 282.82

GRADING LEGEND

EXISTING



PROPOSED



SUMMIT / HIGH POINT

CONTOURS

INDEX CONTOURS

DIRECTION OF DRAINAGE

SPOT ELEVATION

EROSION CONTROL BARRIER

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△	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD

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Missouri State Certificate
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SITE IMPROVEMENTS
PEMISCOT COUNTY PORT AUTHORITY
CARUTHERSVILLE, MO 63830

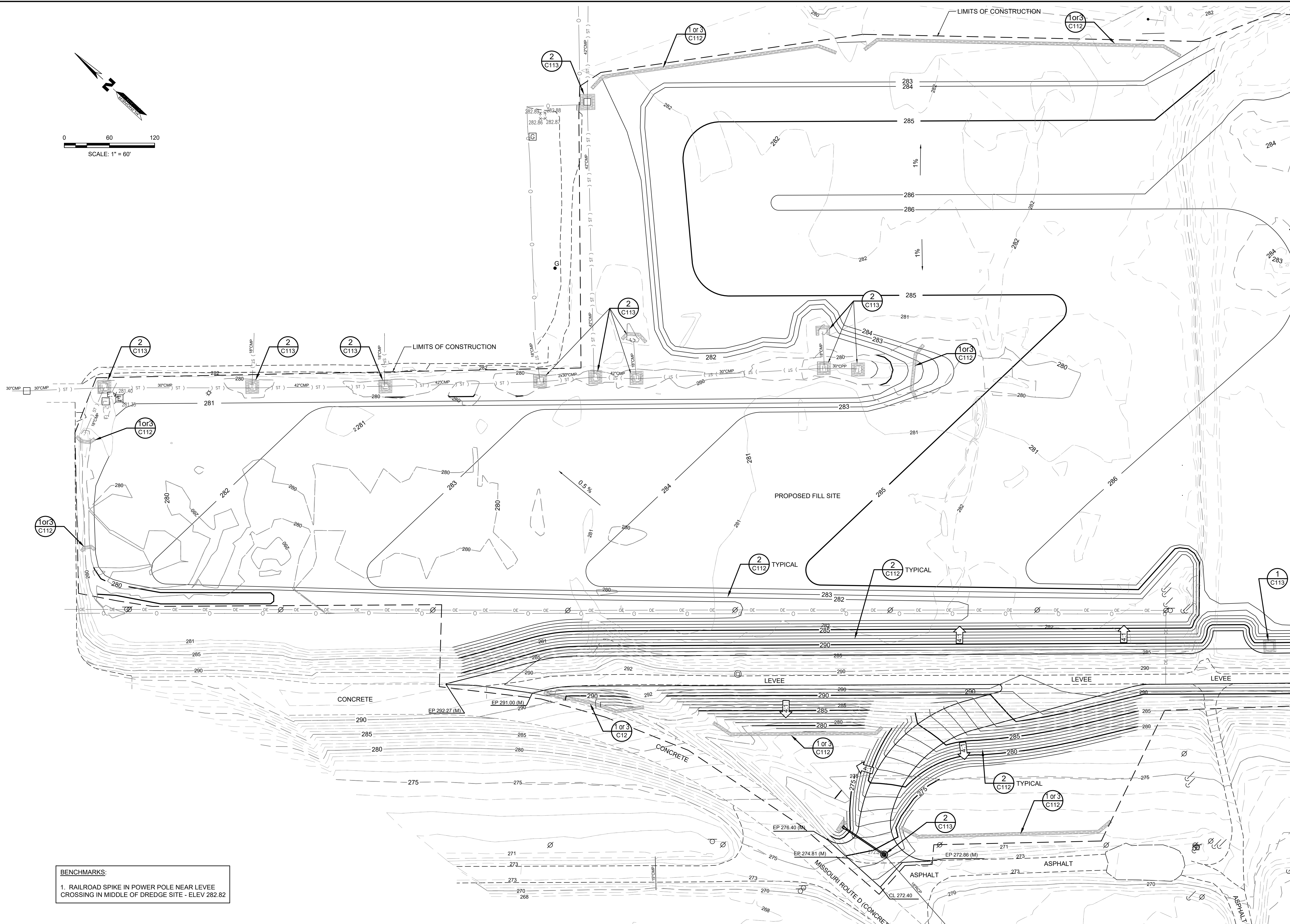
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DESIGNED	DRAWN
DCD	DCD
FIELD	FIELD BOOK
ECB/MMWJ	12/11/19
CHECKED	CHECK DATE
CSW	10/01/2021

SHEET TITLE
OVERALL GRADING & EROSION CONTROL PLAN

PROJECT NO.
19-0025
DRAWING ISSUED DATE:
10/01/2021
SHEET

C107



BENCHMARKS:

1. RAILROAD SPIKE IN POWER POLE NEAR LEVEE CROSSING IN MIDDLE OF DREDGE SITE - ELEV 282.82

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<p>SITE IMPROVEMENTS</p> <p>PEMISCOT COUNTY PORT AUTHORITY</p> <p>CARUTHERSVILLE, MO 63830</p>



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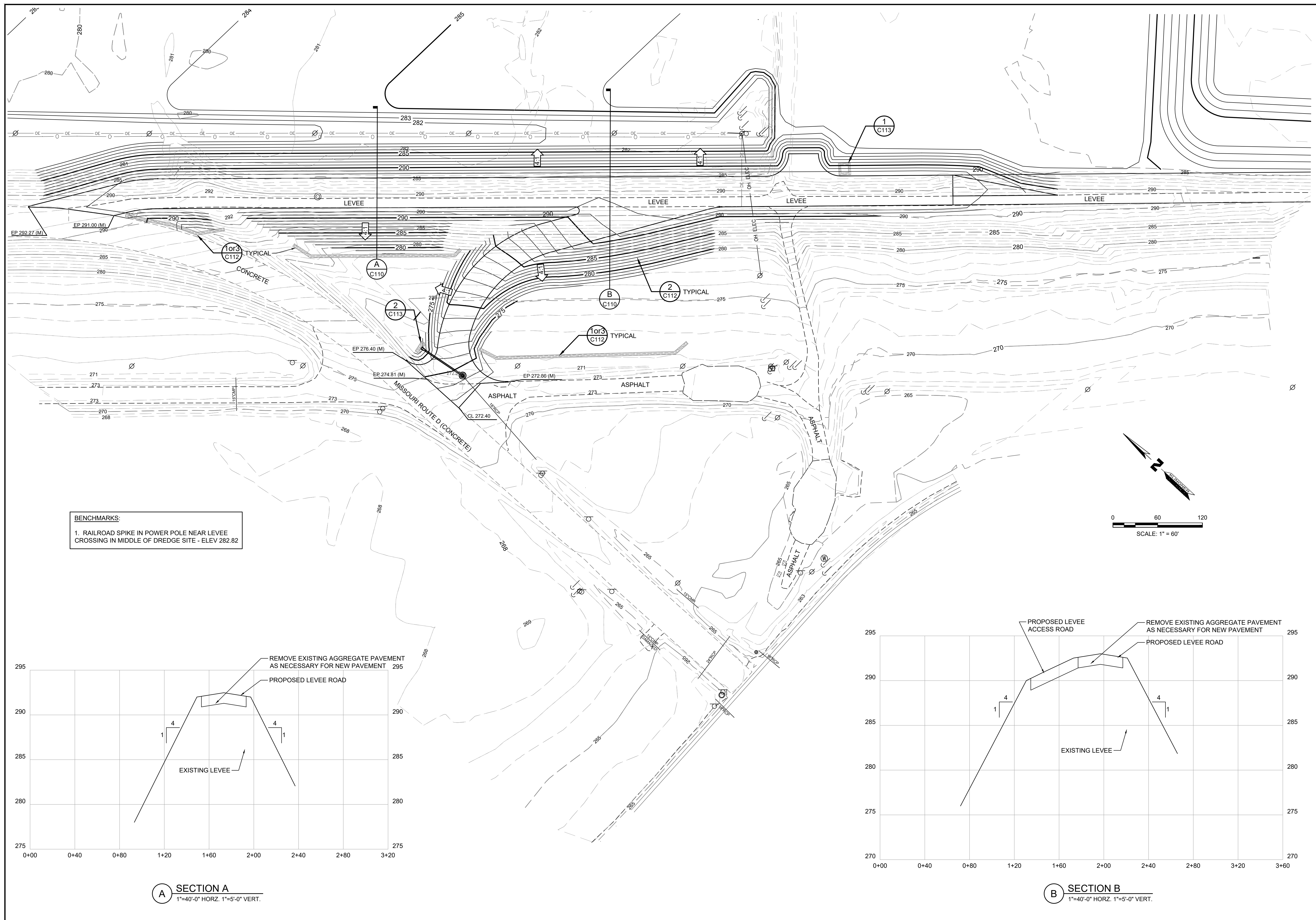
REVISION HISTORY			
MARK	DESCRIPTION	DATE	APPR
△	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD

Klingner & Associates, P.C., Engineer
Missouri State Certificate
of Authority # E-000866



SITE IMPROVEMENTS
PEMISCOT COUNTY PORT AUTHORITY
CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34" Full sized plans have been prepared using standard scales. Reduced size plans may not conform to standard scales.	
DESIGNED DCD	DRAWN DCD
FIELD ECB/MMWJ	FIELD BOOK H2/119
CHECKED CSW	CHECK DATE 10/01/2021
SHEET TITLE ENLARGED GRADING & EROSION CONTROL PLAN (SOUTH)	
PROJECT NO. 19-0025	
DRAWING ISSUED DATE: 10/01/2021	
SHEET C109	



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CERTIFICATION STATEMENTS

This plan and certifications are a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. MO-R10A000 as issued by the Missouri Department of Natural Resources for storm water discharges from Construction Site Activities.

PROJECT INFORMATION:
Site: Pemiscot County Port Authority Location: River Mile 849
City: Caruthersville, Missouri County: Pemiscot

PERMITTEE (OWNER) CERTIFICATION:CONTRACTOR CERTIFICATION STATEMENT certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather 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, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

OWNER (PERMITTEE): _____ CONTRACTOR: _____
SIGNATURE: _____ SIGNATURE: _____
PRINT NAME: _____ PRINT NAME: _____
STREET ADDRESS: _____ STREET ADDRESS: _____
City _____ State _____ Zip _____ City _____ State _____ Zip _____
TELEPHONE NUMBER: _____ TELEPHONE NUMBER: _____
FAX NUMBER: _____ FAX NUMBER: _____
DATE: _____ DATE: _____

STORM WATER POLLUTION PLAN

The following plan is established and incorporated in the project to aid the contractor in the placement of temporary erosion control systems and to provide a storm sewer water pollution prevention plan for compliance under NPDES.

The purpose of this plan is to minimize erosion within the construction site and to limit sediments from leaving the construction site by utilizing proper temporary erosion control systems and providing ground cover within a reasonable amount of time.

Certain erosion control facilities shall be installed by the contractor at the beginning of construction. Other items shall be installed by the contractor as deemed necessary, on a case-by-case situation, depending on the contractor's sequence of activities, time of year and expected weather conditions.

The contractor shall install permanent erosion control systems and seeding within a time frame specified herein. Therefore minimizing the amount of area susceptible to erosion and reducing the amount of temporary seeding. Contractor shall further determine if any temporary erosion control systems shown in the plan can be deleted and if any additional temporary erosion control systems which are not included in this plan shall be added.

SITE DESCRIPTION.

- The project consists of site work for earthwork and roadway construction.
- Construction includes tree removal, earth excavation, embankment, sheet piling, various pavement items, and other miscellaneous items of construction.

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES, WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE.

- Placement, maintenance, removal and proper clean-up of temporary erosion control, such as perimeter erosion control barriers; temporary ditch checks; siltation basins, temporary seeding, etc.
- Tree removal as shown on the plans. Trees to remain will be protected against damage.
- Topsoil removal and stockpiling.
- Excavation and embankment at the job site to achieve the proposed site contours.
- Pavement work.
- Final grading, seeding, and other miscellaneous items.

Placement of permanent erosion control such as riprapped ditches, erosion control blanket, seeding, etc.

AREA OF CONSTRUCTION SITE:

- The total area of the construction site is estimated to be ±73.9 acres of which ±48.7 acres will be disturbed by excavation, grading and other activities.

OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

- Project plan documents, specifications, hydraulic reports, and plan drawings indicate drainage patterns and approximate slopes anticipated after grading activities were utilized for the proposed placement of the temporary erosion control systems.

DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

- The names of receiving water(s) is the Mississippi River.
- Location of any sensitive areas (i.e. wetlands, habitats)

CONTROLS-EROSION CONTROLS AND SEDIMENT CONTROL:

- DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION
The drawings and specifications should ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices include temporary seeding, permanent seeding, mulching, protection of trees, preservation of mature vegetation, and other appropriate measures. Stabilization measures shall be initiated immediately in portions of the site where construction activities have temporarily or permanently ceased,and completed in no more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased. Allowances to the seven (7) day completion period for temporary and permanent stabilization may be made due to weather and equipment malfunctions. The allowances shall be documented in the SWPPP.
 - Areas of existing vegetation: wood and grasslands; outside the proposed construction limits shall be identified for preserving and shall be protected from construction activities.
 - Dead, diseased, or unsuitable vegetation within the site shall be removed, along with required tree removal.

As soon as reasonable access is available to all locations where water drains away from the project, temporary ditch checks, inlet and pipe protection, and perimeter erosion barrier shall be installed as called out in this plan.

- Bare and sparsely vegetated ground in high erodable areas shall be temporarily seeded at the beginning of construction where not construction activities are expected within seven days.
- Immediately after tree removal or stripping is completed, areas which are highly erodable shall be temporarily seeded when no construction activities are expected within seven days.
- At locations where a significant amount of water drains into the construction zone from outside areas (adjacent landowners), temporary ditch checks or silt fencing will be utilized to locally divert water, reduce flow rates, and collect outside siltation inside the site.

Establishment of these temporary erosion control measures will have additional benefits to the project. Desirable grass seed will become established in these areas and will spread seeds onto the construction site until permanent seeding/mowing and overseeding can be completed.

2. DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION

During construction, areas outside the construction limits as outlined previously herein shall be protected. The contractor shall not use this area for staging (except as described on the plans) and parking of vehicles or construction equipment, storage of materials, or other construction related activities.

- Within the construction limits, areas which may be susceptible to erosion, shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion.
- Earth stockpiles shall be temporarily seeded immediately if they are to remain unused for more than fourteen (14) days.
- As construction proceeds, the contractor shall institute the following:
 - Place temporary erosion control facilities at locations shown on the plans.
 - Temporarily seed erodable bare earth on a weekly basis to minimize the amount of erodable surface area within the contract limits.
 - Construct ditches and provide temporary erosion control systems including ditch lining and ditch slopes.
 - Temporarily divert water around culvert locations.
 - Build necessary embankments at culvert locations and then excavate and place culvert.
 - Continue building up the embankment to the proposed grade while at the same time,placing permanent erosion control such as riprap ditch lining and conducting final shaping to the slopes.
- Excavated areas and embankment shall be permanently seeded immediately after final grading. If not, they shall be temporarily seeded immediately if no construction activity in the area is planned for 7 days.
- Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or other pollutant in accordance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.
- The contractor shall inspect the project daily during construction activities. Inspection shall also be done weekly and after heavy rains.
- Sediment collected during construction of the various temporary erosion control systems shall be disposed of on the site on a regular basis.
- The temporary erosion control systems shall be removed after use is no longer or no longer functioning.

3. DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING

- Temporary erosion control systems shall be left in place with proper maintenance until permanent erosion control is in place and working properly and all proposed turf areas seeded and established.
- Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up, and disturbed turf reseeded.
- Permanent seeding shall occur within three (3) days of completion of final grading operations.

MAINTENANCE AFTER CONSTRUCTION

- Construction is complete after acceptance by the Owner. Maintenance up to this date will be by the Contractor.

MISCELLANEOUS

- Temporary ditch checks shall be located at every 1.5 ft. fall/rise in ditch grade.
- Temporary erosion control seeding shall be applied at a rate of 100 lbs/acres.
- Straw bales, hay bales, perimeter erosion barrier and silt fences will not be permitted for permanent ditch checks. Ditch checks shall be composed of aggregate, silt panels, rolled excelsior, geotextile web grids and/or other equal materials.
- Sediment collected during construction by the various temporary erosion control systems shall be disposed on the site on a regular basis.

INSPECTIONS.

- The Permittee (or a representative of the permittee) shall conduct regularly scheduled inspections at least once every seven calendar days. these inspections shall be conducted by a qualified personnel, one who is responsible for environmental matters at the site, or a person directly supervised by the person responsible for environmental matters. For disturbed areas that have not been finally stabilized, all installed BMP's and other pollution control measures shall be inspected for proper installation, operation and maintenance. All stormwater outfalls shall be inspected 50 feet downstream of the outfall. Any structural or maintenance problems shall be noted in an inspection report and corrected within seven calendar days of the inspection. If a rainfall causes stormwater runoff to occur on-site, the BMP's must be inspected within reasonable time period after the rainfall event has ceased. These inspections must occur within 48 hours after the rain event has ceased during a normal work day and within 72 hours if the rain event ceases during a non-work day, such as a weekend or a holiday.

ON SITE INSPECTOR NAME: _____
COMPANY NAME: _____
STREET ADDRESS: _____
City _____ State _____ Zip _____
TELEPHONE NUMBER: _____
FAX NUMBER: _____
DATE: _____

- Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.

- Based on the results of the inspection, the description of potential pollutant sources identified herein and pollution prevention measures identified herein shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the inspection.
- A report summarizing the scope of the inspection, names(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken shall be made and retained as part of the plan for at least three (3) years after the date of the Letter of Termination. The report shall be signed in accordance with Requirements and Guidelines of the general permit.
- If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Department with the following information, in writing within five (5) days of becoming aware of such conditions:
 - a description of discharge and cause of noncompliance, and
 - the period of noncompliance, including exact dates and times or, if not corrected, the anticipated the noncompliance is expected to continue m and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.
- Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or environment. Any information shall be provided orally with in 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

The report of noncompliance shall be mailed to the following address:

Missouri Department of Natural Resources
St. Louis Regional Office
7545 S. Lindbergh, Suite 210
St. Louis, Missouri 63125
(314) 416-2960
(314) 416-2960 fax

Special Provision
For
National Pollutant Discharge Elimination System

This project will result in a disturbance of one (1) or more acres of total land area and will require compliance with the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit.

The Owner is the PERMITTEE and the Contractors and Subcontractors will be required to certify that they understand and will comply with all requirements of the permit.

A storm water pollution plan shall be cooperatively developed by the PERMITTEE and contractor for this project using good engineering practices. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges. In addition, the plan shall describe and ensure the implementation of practices which will be used to reduce the pollutants in storm water discharges associated with this project and assure compliance with the terms and conditions of the Storm Water Permit.

The Owner has acquired a Land Disturbance Permit through the EPERMITTING process on the Missouri Department of Natural Resource (MoDNR) website. The Contractor shall comply with provisions of this permit. At the completion of the project stabilization the following form shall be completed and submitted to the MoDNR:

FORM H - REQUEST FOR TERMINATION OF A GENERAL PERMIT

The Contractor shall prepare a stormwater management plan which is certified by both the Owner and Contractor. The Contractor shall be responsible for posting a copy of the public notification sign on the site and Request for Termination as well as maintaining the Stormwater Management Plan and maintenance records on-site.

REVISION HISTORY			
MARK	DESCRIPTION	DATE	APPR
△	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD

△	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD
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Klingner & Associates, P.C. - Engineer
Missouri State Certificate
of Authority # E-000866

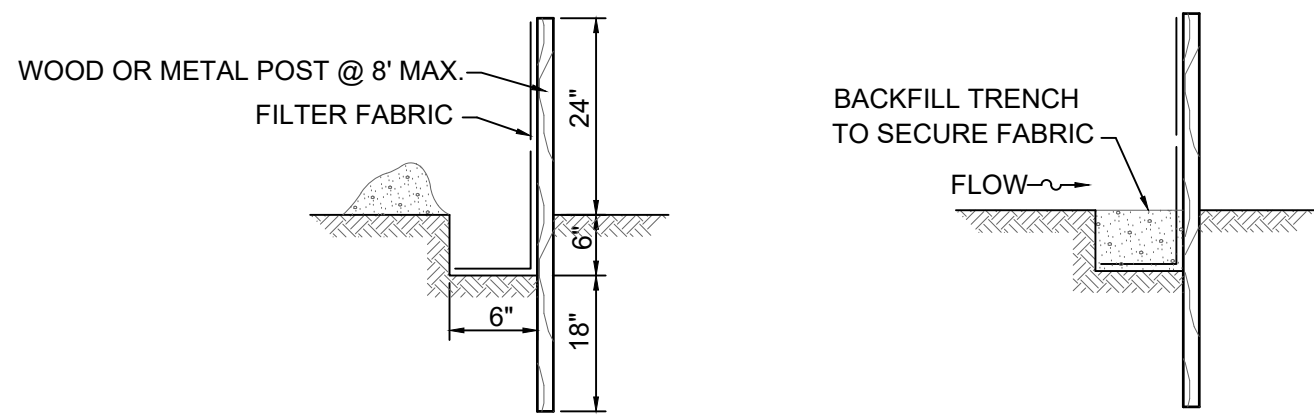


GAVIN RISLEY-ENGINEER
MO# 2013025031

SITE IMPROVEMENTS
PEMISCOT COUNTY PORT AUTHORITY
CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34"	
Full sized plans have been prepared using standard scales. Reduced size plans may not conform to standard scales.	
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FIELD ECB/MWJ	FIELD BOOK h21119
CHECKED CSW	CHECK DATE 10/01/2021

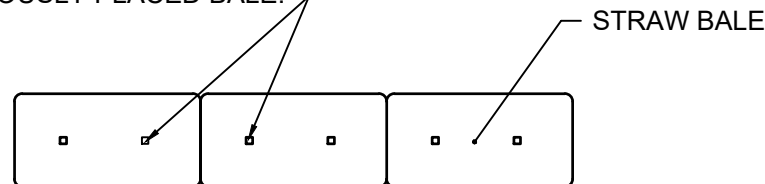
SHEET TITLE	
STORM WATER POLLUTION PREVENTION PLAN	
PROJECT NO. 19-0025	
DRAWING ISSUED DATE: 10/01/2021	
SHEET	
C111	



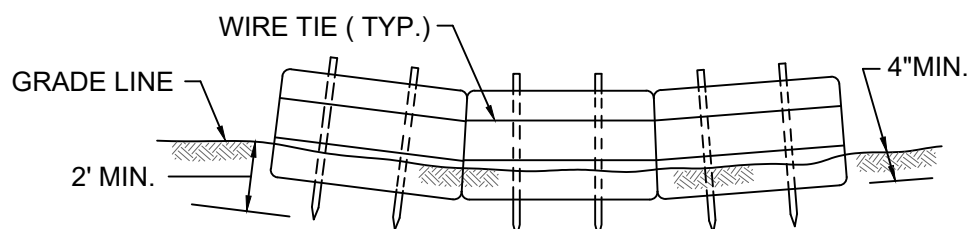
FILTER FENCE AND POST INSTALLATION

SECTION

FOR EACH STRAW BALE, DRIVE 2 NO. 5 REBARS, STEEL PICKETS, OR 2"x 2" WOODEN STAKES INTO THE GROUND. ANGLE FIRST STAKE TOWARD PREVIOUSLY PLACED BALE.



PLAN VIEW



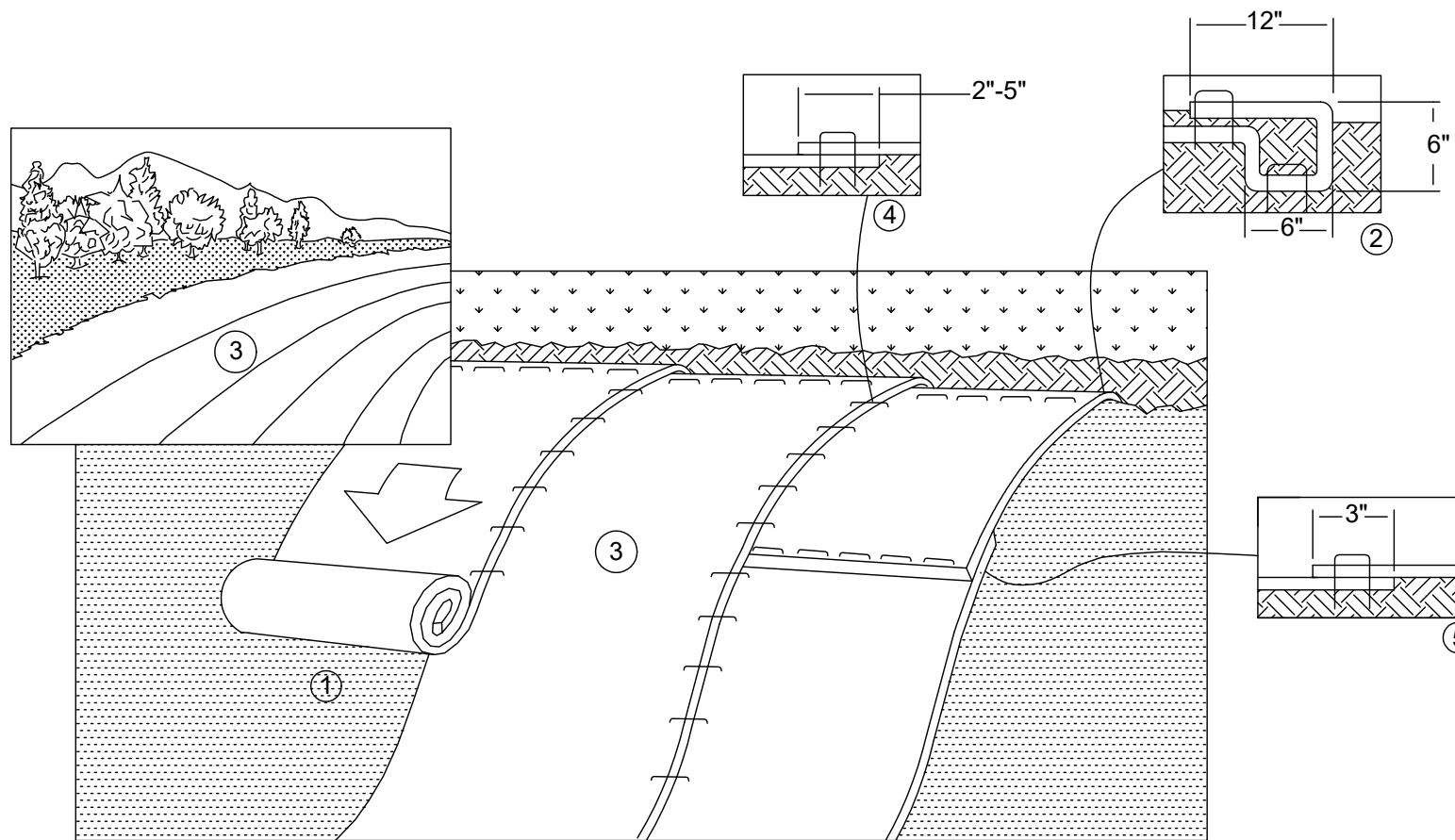
SECTION VIEW

STRAW BALE INSTALLATION

1. STRAW BALES TO BE STACKED IN A SINGLE ROW & EMBEDDED IN THE SOIL TO A DEPTH OF 4 INCHES MINIMUM
2. ALL BALES ARE TO BE SECURELY BOUND WITH WIRE OR STRING.
3. LENGTH OF SEDIMENT BARRIER AS INDICATED ON THE PLANS
4. SCATTER LOOSE STRAW OVER THE AREA IMMEDIATELY UPSLOPE FROM SEDIMENT BARRIERS. FILL GAPS BETWEEN BALES WITH LOOSE STRAW.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SEDIMENT BARRIERS IN A CONDITION THAT IS SATISFACTORY TO THE CONTRACTING OFFICER UNTIL FINAL ACCEPTANCE OF WORK.

1 TEMPORARY EROSION CONTROL BARRIER DETAILS

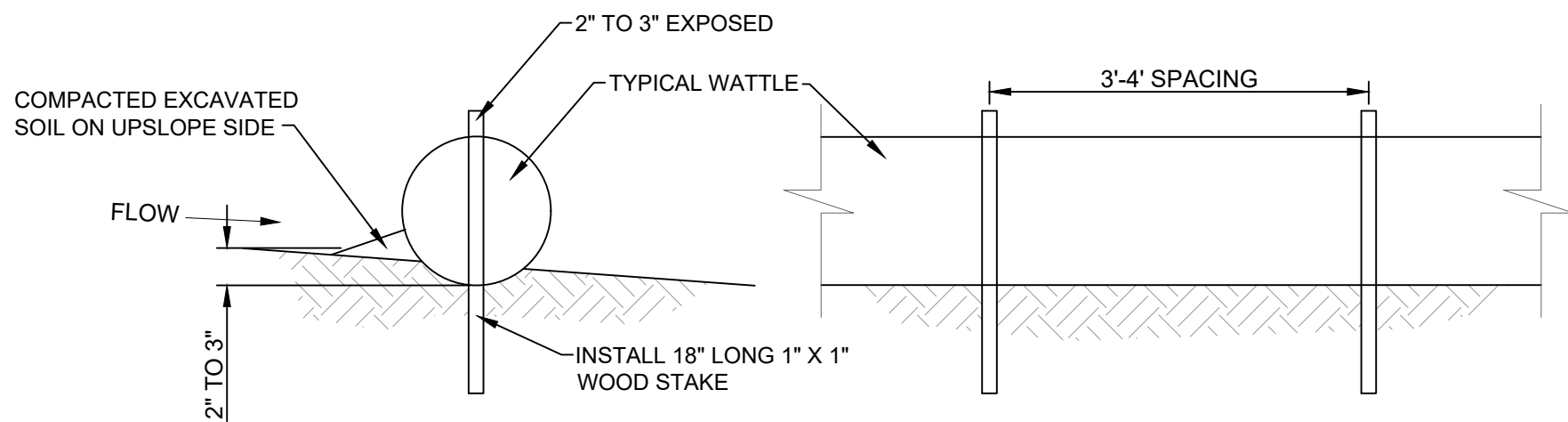
N.T.S.



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. SEEDING WILL BE COMPLETED BY THE OWNER, CONTRACTOR TO COORDINATE WITH OWNER TO ALLOW PROPER TIMING AND COORDINATION FOR THE SEEDING AND EROSION BLANKET INSTALLATION.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROXIMATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROXIMATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 54" OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP's WIDTH.
NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.
6. EROSION CONTROL BLANKET SHALL BE USED ON ALL SLOPES 4:1 AND STEEPER.

2 EROSION CONTROL BLANKET INSTALLATION DETAILS

N.T.S.



3 EROSION CONTROL WATTLE CHECK

N.T.S.

REVISION HISTORY			
MARK	DESCRIPTION	DATE	APPR
Δ	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD

Klingner & Associates, P.C. - Engineer
Missouri State Certificate
of Authority # E-000866



SITE IMPROVEMENTS
PEMISCOT COUNTY PORT AUTHORITY
CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34"	
Full sized plans have been prepared using standard scales. Reduced size plans may not conform to standard scales.	
DESIGNED DCD	DRAWN DCD
FIELD ECB/MMWJ	FIELD BOOK h2/1/19
CHECKED CSW	CHECK DATE 10/01/2021

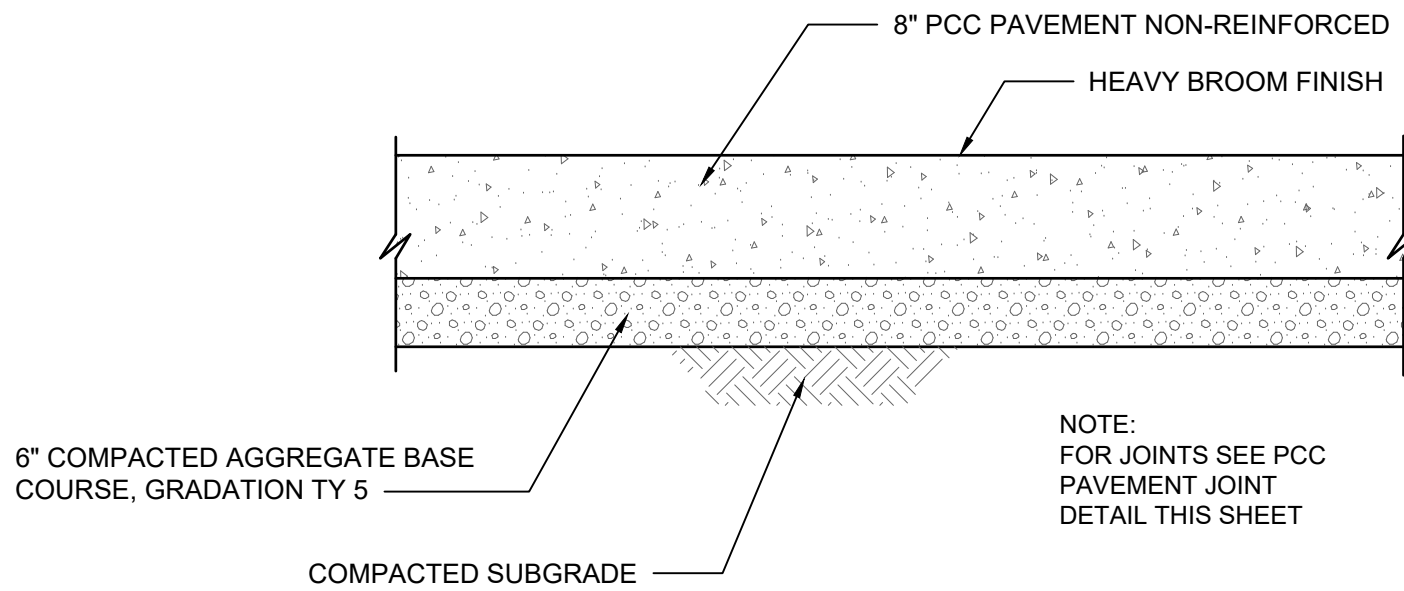
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SWPPP DETAILS

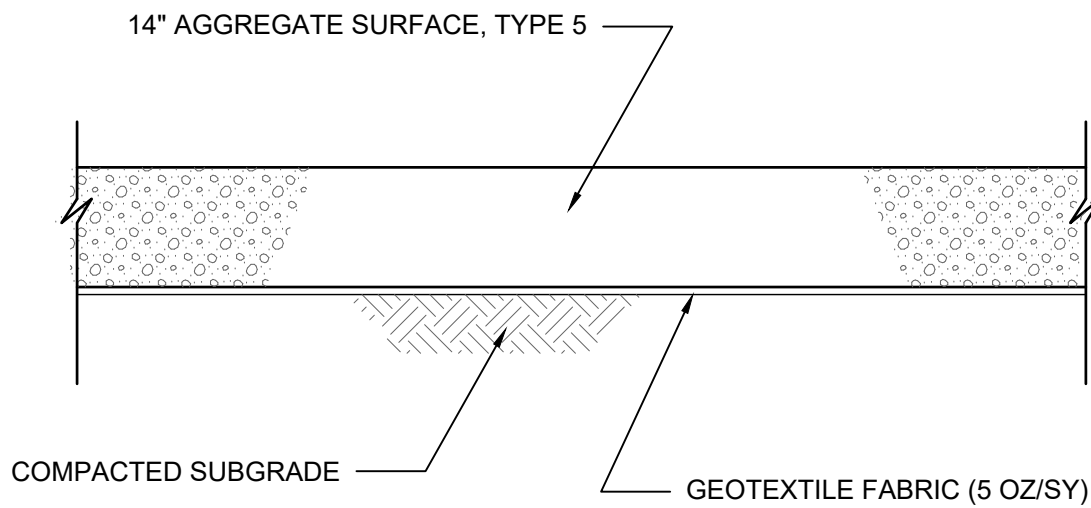
PROJECT NO.
19-0025
DRAWING ISSUED DATE:
10/01/2021
SHEET

C112

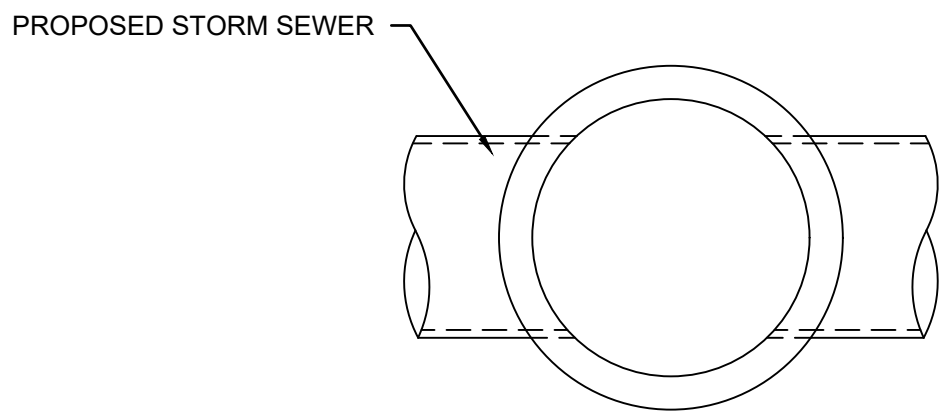




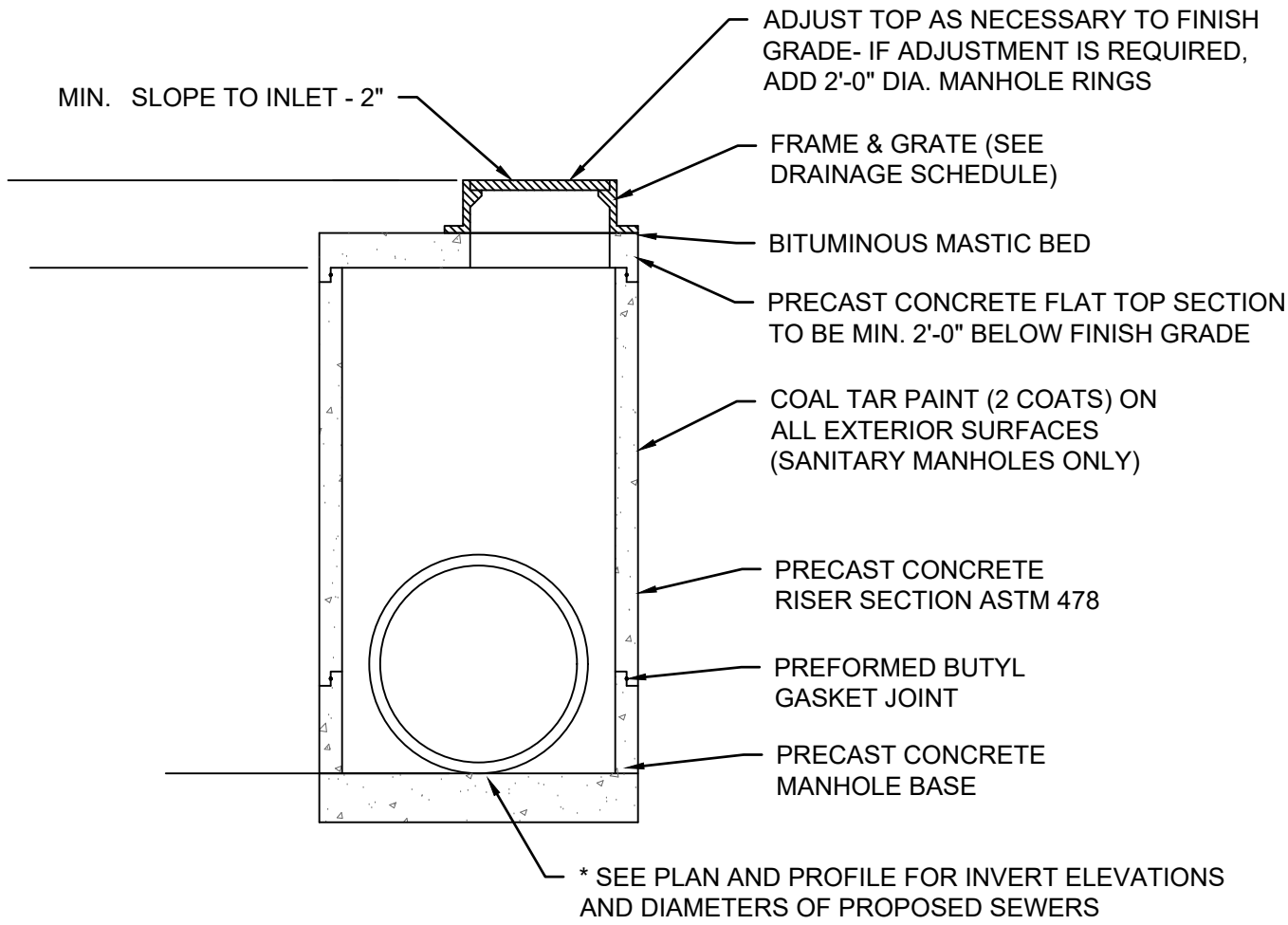
1 PCC PAVING DETAIL
N.T.S.



3 AGGREGATE PAVING DETAIL
N.T.S.



SECTIONAL PLAN



SECTION

2 FLAT TOP MANHOLE
N.T.S.

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REVISION HISTORY			
MARK	DESCRIPTION	DATE	APPR
△	REVISE PLANS WITH UPDATED TOPO SURVEY	12/13/21	DCD

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SITE IMPROVEMENTS
PEMISCOT COUNTY PORT
AUTHORITY
CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34"
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DESIGNED DCD	DRAWN DCD
FIELD ECB/MMWJ	FIELD BOOK H2/119
CHECKED CSW	CHECK DATE 10/01/2021

SHEET TITLE
MISCELLANEOUS SITE DETAILS
PROJECT NO. 19-0025
DRAWING ISSUED DATE: 10/01/2021
SHEET
C501

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REVISION HISTORY			
MARK	DESCRIPTION	DATE	APPR
△	REVISE PLANS WITH UPDATED TOPG SURVEY	12/13/21	DCD

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SITE IMPROVEMENTS
PEMISCOT COUNTY PORT AUTHORITY
CARUTHERSVILLE, MO 63830

Non-Reduced Sheet Size: 22" x 34"
Full sized plans have been prepared using standard scales.
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DESIGNED DCD	DRAWN DCD
FIELD ECB/MMWJ	FIELD BOOK H2/119
CHECKED CSW	CHECK DATE 10/01/2021

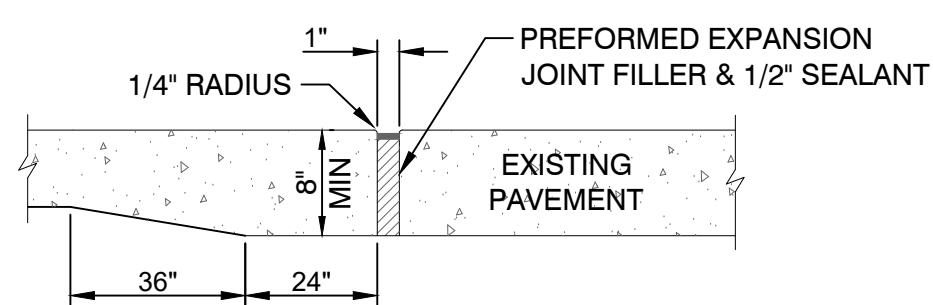
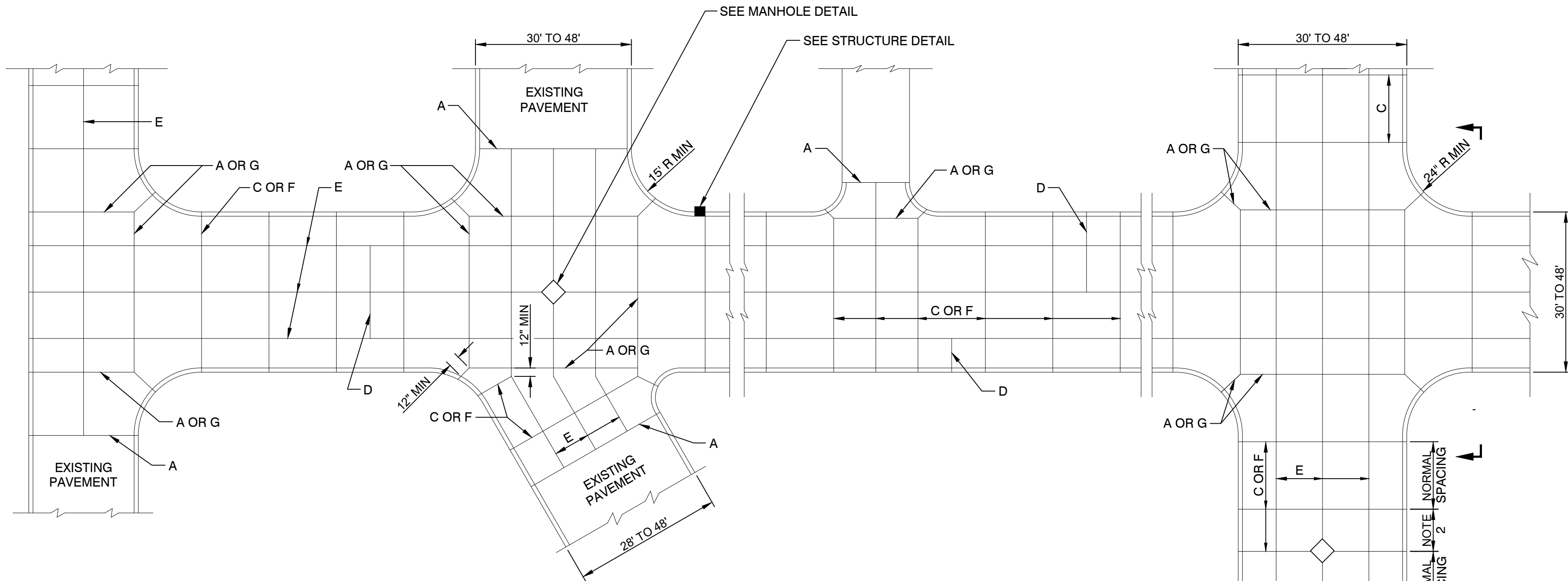
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PAVEMENT DETAILS

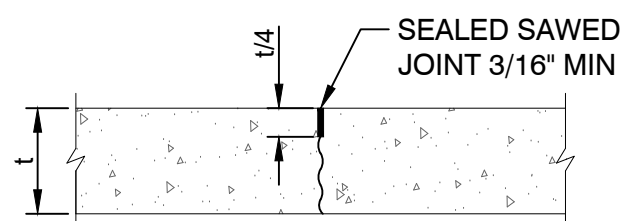
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DRAWING ISSUED DATE: 10/01/2021
SHEET C502

GENERAL NOTES

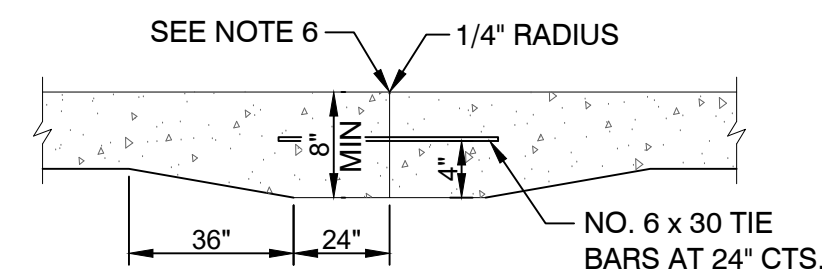
- All inlets, manholes and other structures shall be separated from the pavement and curb by boxing out as shown in the detail. Manhole castings within the pavement limits shall be boxed in a like manner except when telescoping type castings are used.
- When a joint falls within 5 feet of or contacts basins, manholes, or other structures, shorten one or more panels either side of opening to permit joint to fall at the corners of the box out.
- All transverse joints must extend through curbs and be continuous across pavement, except tied transverse construction joints. Expansion joints will be required as shown on the plans.
- Joints shall be sawed to a depth of t/4 for transverse joints and t/3 for longitudinal joints. Saw joints shall be sealed, in accordance with the MODOT Standard Specifications. Transverse joint spacing shall not exceed 15 feet.



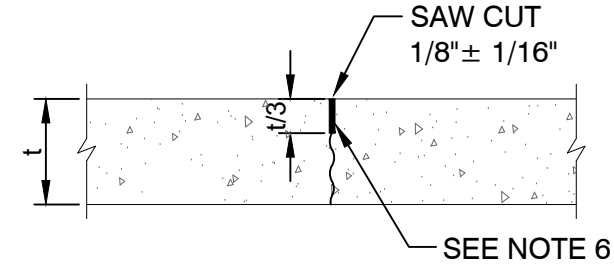
TYPE A CONCRETE EXPANSION JOINT



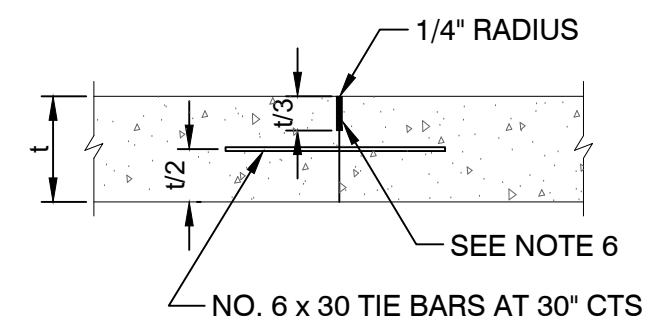
TYPE C SAWED TRANSVERSE JOINT



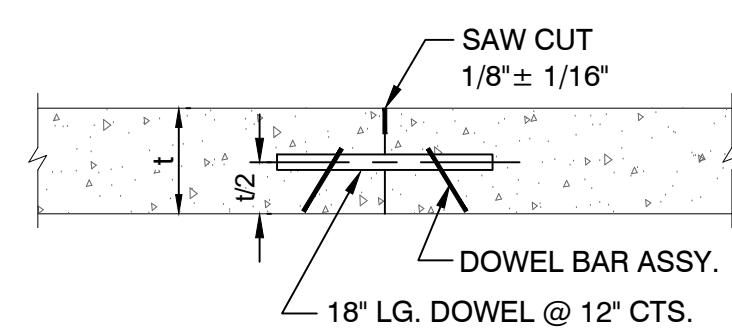
TYPE D TIED TRANSVERSE CONSTRUCTION JOINT



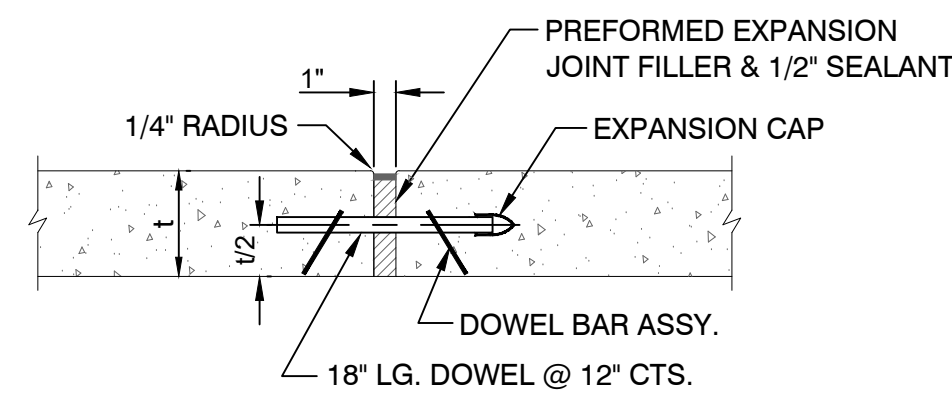
TYPE E MONOLITHIC POUR LONGITUDINAL JOINT



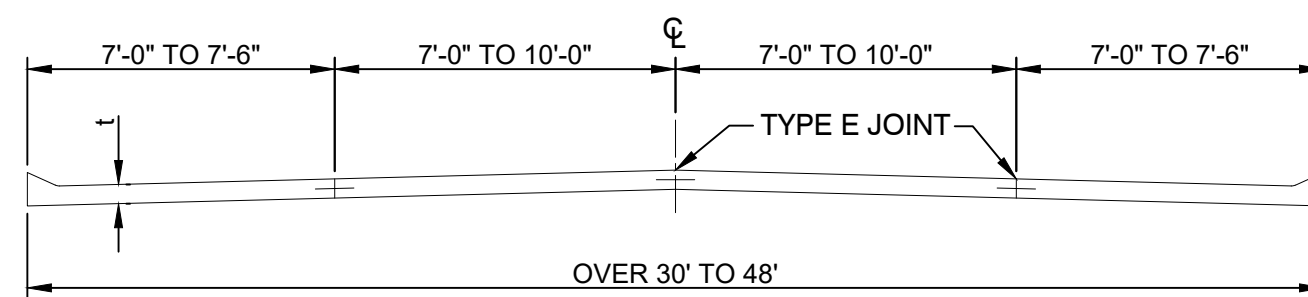
TYPE E SEPARATE POUR LONGITUDINAL JOINT



TYPE F JOINT

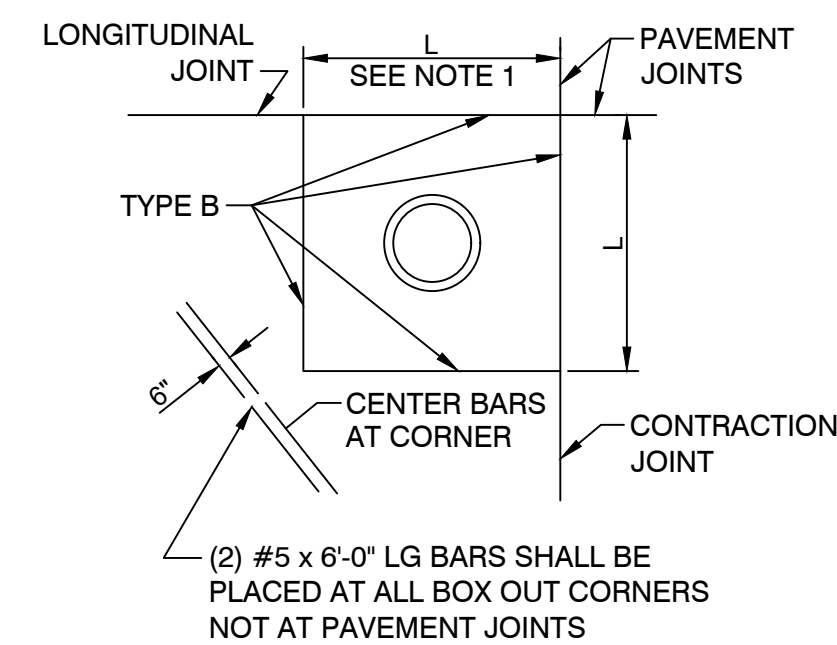


TYPE G JOINT

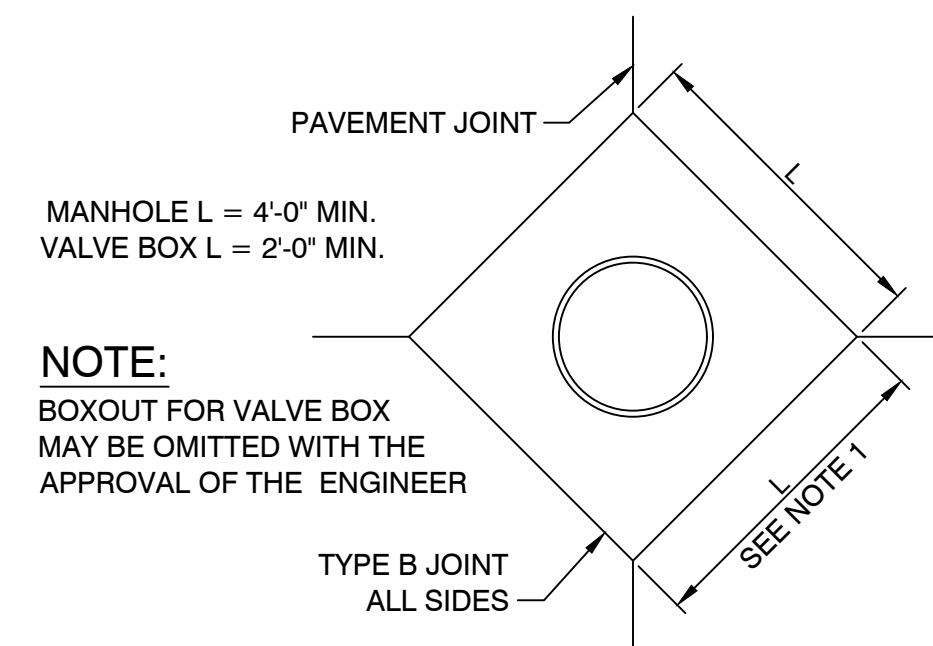


SECTION - OVER 30' TO 48' WIDTH

DOWEL BAR DIMENSIONS			
PAVEMENT THICKNESS	DIAMETER	LENGTH	SPACING
6" - 7 1/2"	1"	18"	18"
7 3/4" - 10"	1 1/4"	18"	18"



TYPICAL UTILITY BOXOUT JOINTS SOME CORNERS



TYPICAL UTILITY BOXOUT JOINTS ALL CORNERS

MANHOLE L = 4'-0" MIN.
VALVE BOX L = 2'-0" MIN.

NOTE:
BOXOUT FOR VALVE BOX
MAY BE OMITTED WITH THE
APPROVAL OF THE ENGINEER