

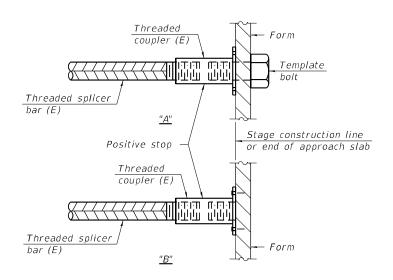
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

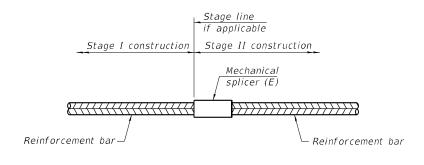
| Location | Bar | No. assemblies | Minimum |
|--------------------|------|----------------|------------|
| Location | size | required | lap length |
| Top Slab (South) | #6 | 22 | 2'-7" |
| Bott. Slab (South) | #6 | 22 | 2'-7" |
| Side wall (South) | #4 | 8 | 1'-9" |
| Top Slab (North) | #6 | 22 | 2'-7" |
| Bott. Slab (North) | #6 | 22 | 2'-7" |
| Side wall (North) | #4 | 8 | 1'-9" |



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt "B" : Set bar splicer assembly by nailing to wood forms or

cementing to steel forms. (E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|-------------|----------------------------|
| | | |
| | | |
| | | |

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi

All reinforcement shall be lapped and tied to the splicer bars.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-1-2020



| USER NAME = | DESIGNED | - | SCD | REVISED - |
|---------------------------------|----------|---|-----|-----------|
| 0108172-70B99-003-Details3 | CHECKED | - | CFS | REVISED - |
| PLOT SCALE = 0:2.0000 ':" / 10. | DRAWN | - | SCD | REVISED - |
| PLOT DATE = | CHECKED | - | CFS | REVISED - |

TOTAL BILL OF MATERIAL

| ITEM | | |
|---|---------|--------|
| Removal Of Existing Structures No. 5 | Each | 1 |
| Removal And Disposal Of Unsuitable Material For Structures | Cu. Yd. | 167.3 |
| Reinforcement Bars | Pound | 88,960 |
| Bar Splicers | Each | 88 |
| Name Plates | Each | 1 |
| Temporary Soil Retention System | Sq. Ft. | 1028 |
| Concrete Box Culverts | Cu. Yd. | 375.5 |
| Concrete Collar | Cu. Yd. | 6.4 |
| Rock Fill | Cu. Yd. | 167.3 |

WATERWAY INFORMATION

| | No. | | | | | | | | |
|--|------------|--------|----------|----------|--------|--------|-------|---------|--------|
| | | 9 | Overtop. | | | | | | |
| Drainage Area = 0.07 s | q. mi. Pro | posed | Overtop. | Elev. = | 784.06 | @ Sta. | 209+7 | 3.00 (R | amp B) |
| Freq. Q Opening Ft ² Nat. Head - Fi | | - Ft. | Headwa | ater El. | | | | | |
| Flood | Yr. | C.F.S. | Exist. | Prop. | H.W.E. | Exist. | Prop. | Exist. | Prop. |
| Ten-Year | 10 | 69 | 7 | 17 | 772.12 | 4.39 | 0.59 | 776.51 | 772.71 |
| Design | 50 | 93 | 7 | 21 | 772.32 | 7.77 | 0.86 | 780.09 | 773.18 |
| Base | 100 | 105 | 7 | 22 | 772.42 | 8.83 | 0.97 | 781.25 | 773.39 |
| Overtop Existing | | 98 | 7 | | 772.42 | 9.12 | | 781.54 | |
| Max. Calc. | 500 | 146 | 7 | 24 | 772.72 | 8.77 | 1.39 | 781.49 | 774.11 |

Existing 10 Year Outlet Velocity = 10.5 ft/s

Proposed 10 Year Outlet Velocity = 4.9 ft/s

STATION 1048+05.00

BUILT 20__ BY

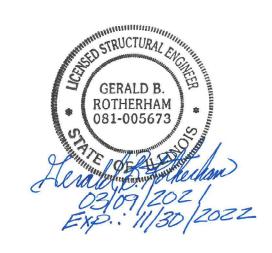
STATE OF ILLINOIS

F.A.I. RIE. 74 - SEC. (10-34-1) HBK

LOADING HL-93

STRUCTURE NO. 010-8173

NAME PLATE
See Std. 515001



GENERAL NOTES

The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

The Rock Fill shall be capped with 6 in. of CA7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the pay item for "Rock Fill".

Construction to occur over two separate contracts. The initial contract will include construction of the culvert, ramps, drainage items (pipe culverts, storm sewer), and reconstruction of the portion of the existing F.A.I. Rte. 74 removed to construct the proposed culvert. The second contract will include construction of the final F.A.I. Rte. 74 roadway cross section.

Per Section 540 of the Standard Specifications, the Contractor shall be responsible for diverting the water flow from the construction area using a method meeting the approval of the Engineer. Also, see Special Provisions concerning dewatering requirements for embankment and structure construction.

See Roadway Plans for existing pipe culverts and manholes to be removed. See Roadway Plans for existing utilities within the limits of proposed construction.

Precast Alternate is not allowed.

No Salvage

INDEX OF SHEETS

- 1 General Data
- 2 Culvert Details Longitudinal Section
- 3 Culvert Details Top & Bottom Slab
- 4 Culvert Details Staging & Temporary Soil Retention
- 5 Culvert Details Concrete Collar & Culvert Section
- 6 Bar Splicer Assembly and Mechanical Splicer Details

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psify = 60,000 psi (Reinforcement)

<u>LOADING HL-93</u>

Allow 50#/sq. ft. for future wearing surface.

BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC.

443 KORTH-COURT STREET WARRAN (MICHONIC STREET)

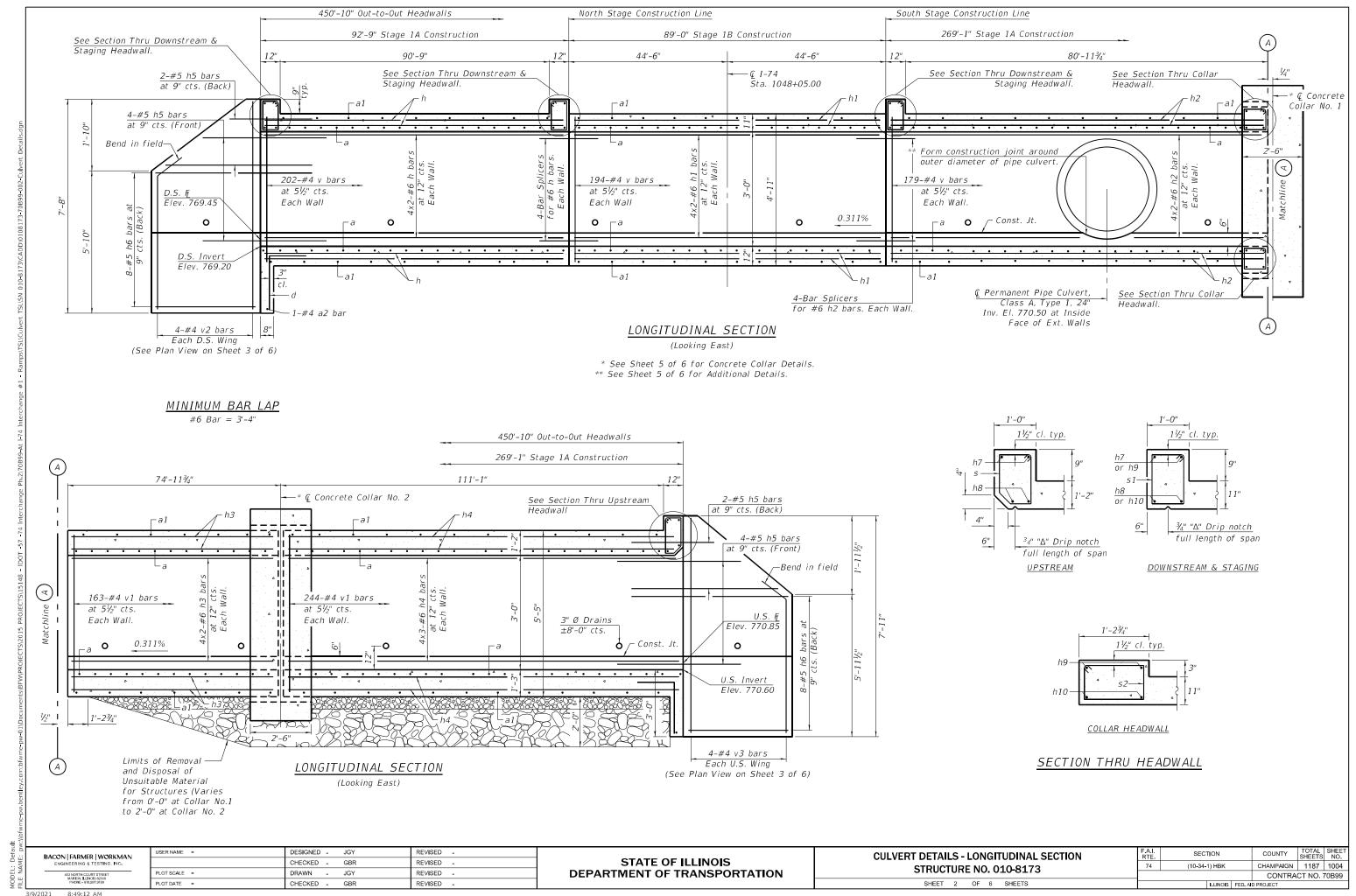
WARRAN LENGES CROSS PROPER (MICHONIC STREET)

PLOT SCALE | DRAWN - JGY REVISED
CHECKED - GBR REVISED -

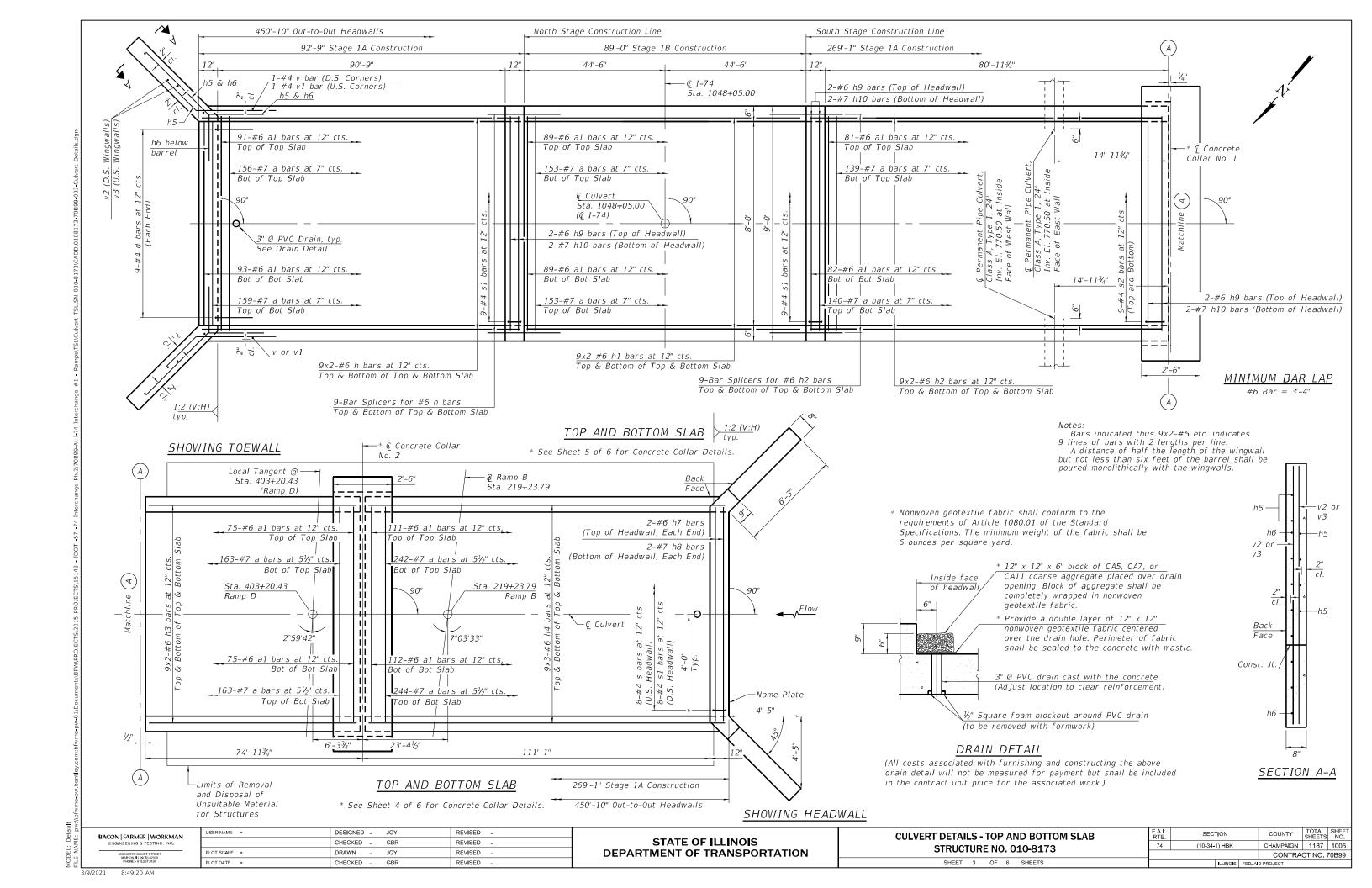
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

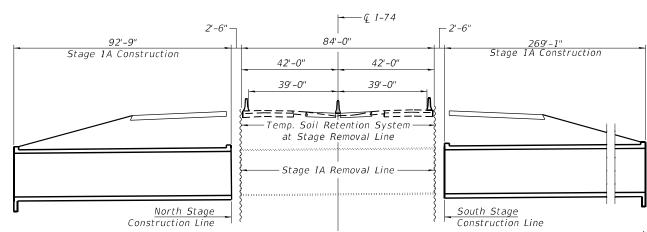
GENERAL DATA
STRUCTURE NO. 010-8173

SHEET 1 OF 6 SHEETS



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STAGE IA CONSTRUCTION & TRAFFIC

Ground Surface/Top of Soil Retention System

Exposed Area

Max Excavation Line

Max Excavation Line

Elev. ±781.30

Max Excavation Line

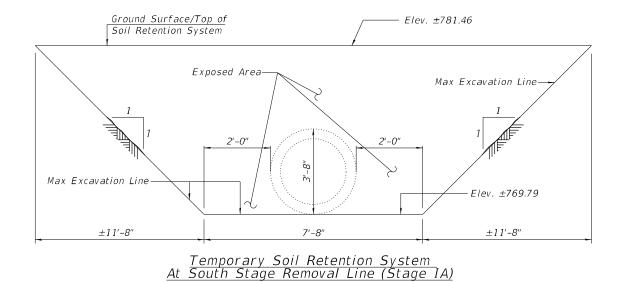
Elev. ±769.43

±11'-10½"

7'-8"

±11'-10½"

<u>Temporary Soil Retention System</u> <u>At North Stage Removal Line (Stage IA)</u>

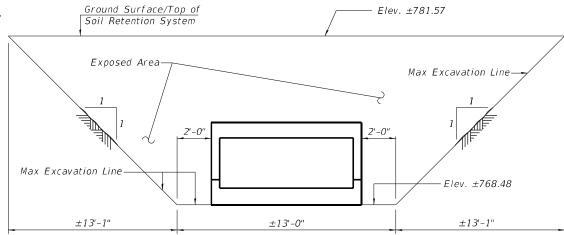


A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

| Stage Const. Line | South Stage | Construction Line | Constructi

5'-81/2"-

39'-0"



5'-6"

39'-0"

89'-0"

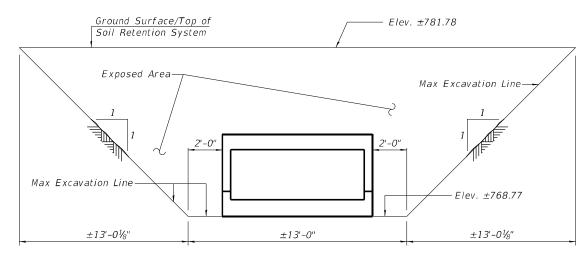
Stage IB Construction

Temp. Soil Retention System at Stage Removal Line/

STAGE IB CONSTRUCTION & TRAFFIC

(Looking East)

<u>Temporary Soil Retention System</u> <u>At Stage Removal Line/North Stage Construction Line (Stage IB)</u>



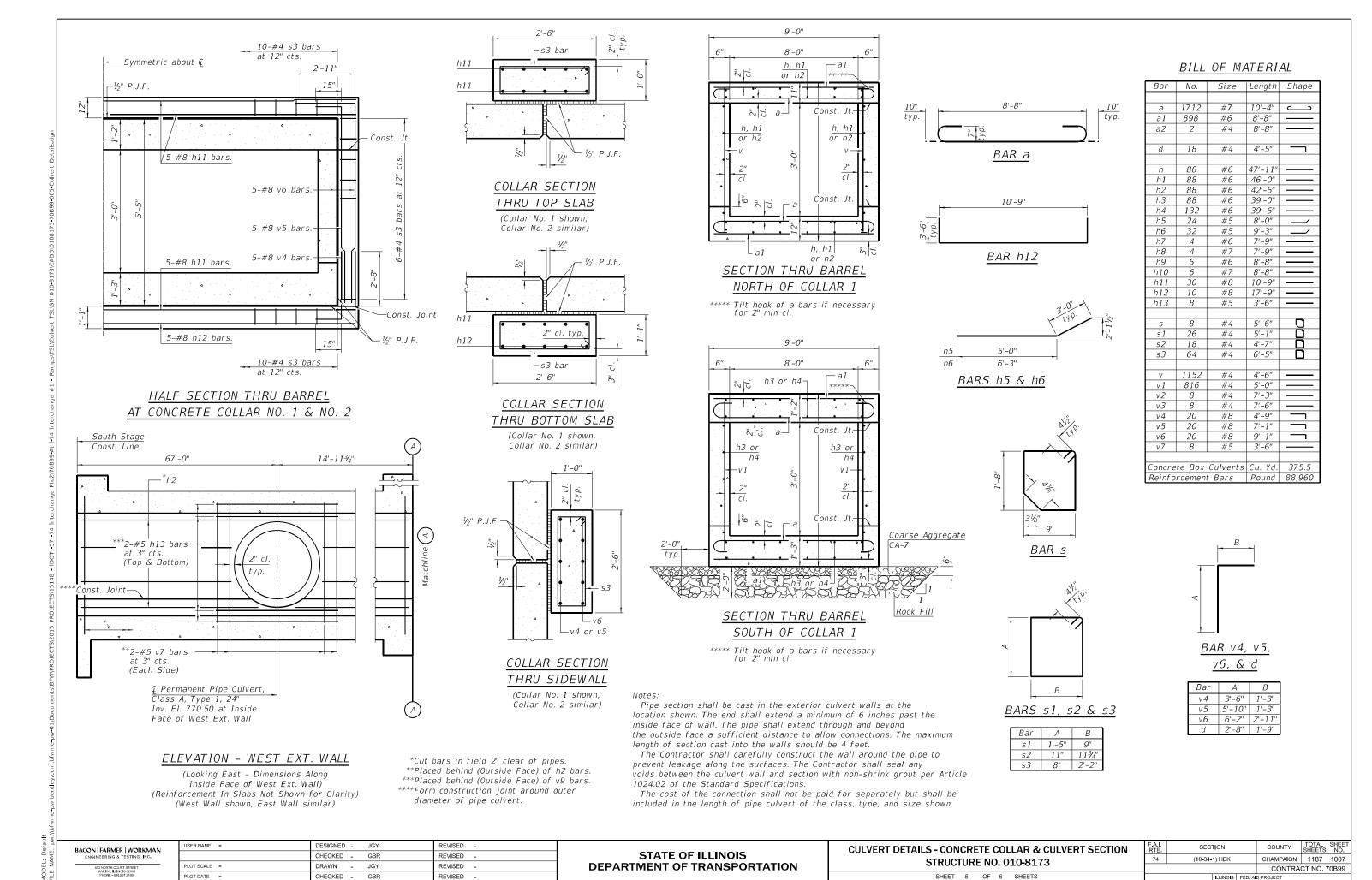
Temporary Soil Retention System
At Stage Removal Line/South Stage Construction Line (Stage IB)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

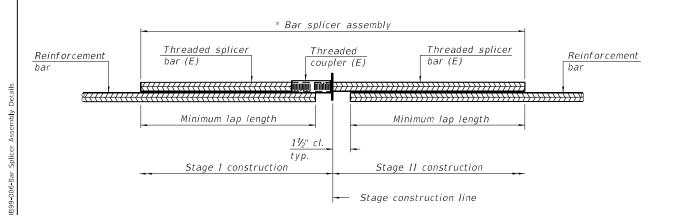
 CULVERT DETAILS - STAGING & TEMPORARY SOIL RETENTION
 F.A.I. RTE.
 SECTION
 COUNTY SHEET SHEETS
 TOTAL SHEET NO.

 STRUCTURE NO. 010-8173
 74
 (10-34-1) HBK
 CHAMPAIGN
 1187
 1006

 SHEET 4
 0F 6
 SHEETS
 SHEETS
 ILLINOIS FED. AID PROJECT



3/9/2021 8:49:36 AM



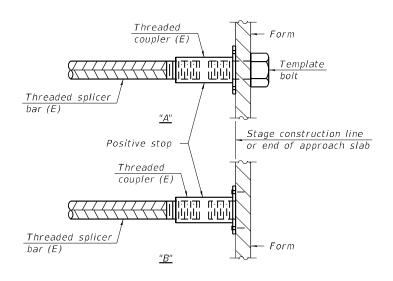
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

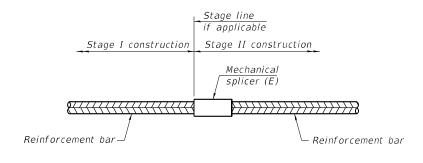
| Location | Bar | No. assemblies | Minimum |
|-------------|------|----------------|------------|
| Lucation | size | required | lap length |
| Top slab | #6 | 36 | 3'-4" |
| Walls | #6 | 16 | 3'-4" |
| Bottom slab | #6 | 36 | 3'-4" |
| | | | |
| | | | |



INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|-------------|----------------------------|
| | | |
| | | |
| | | |

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum $60\ ksi$ yield strength.

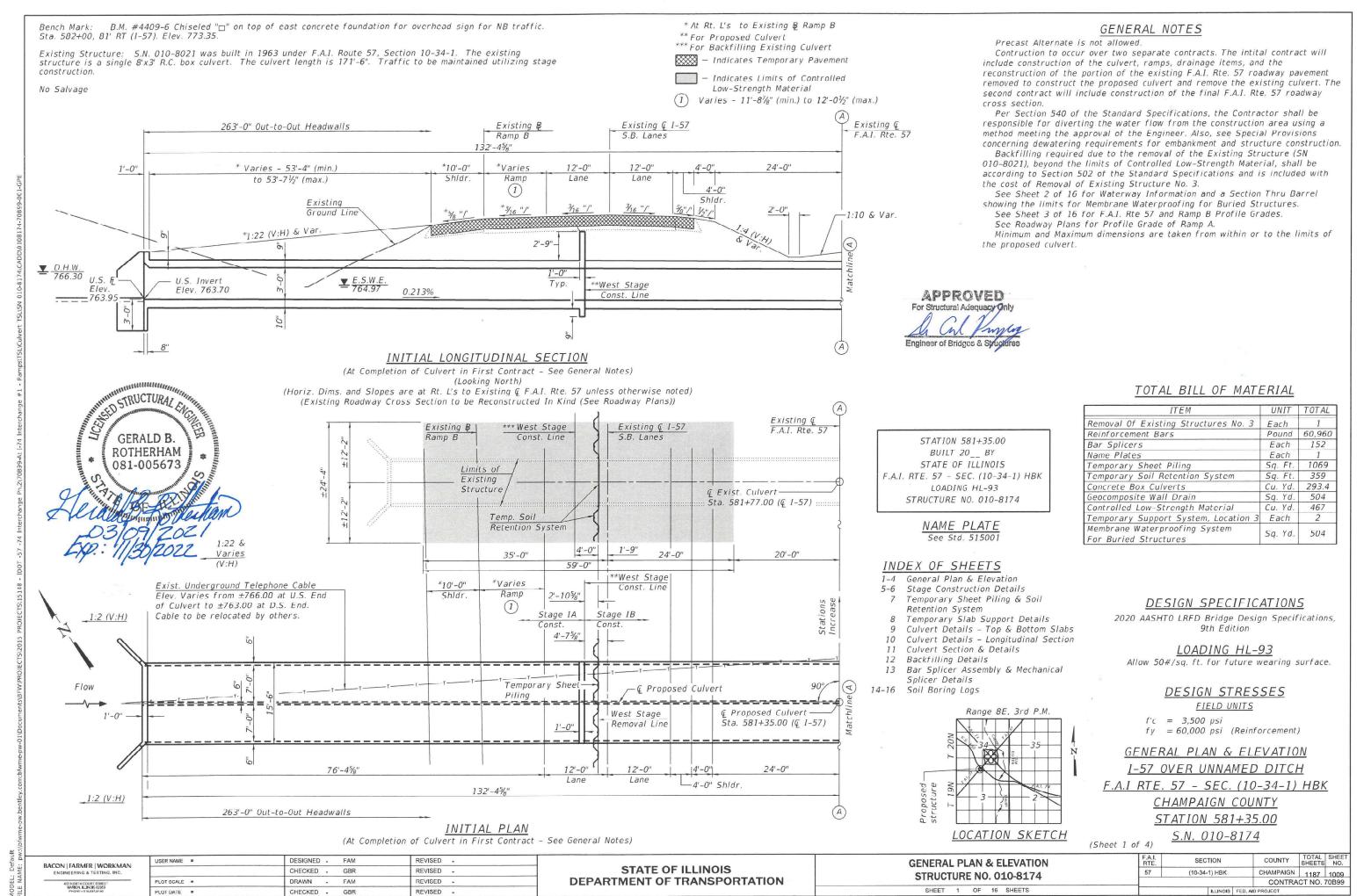
All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements

for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

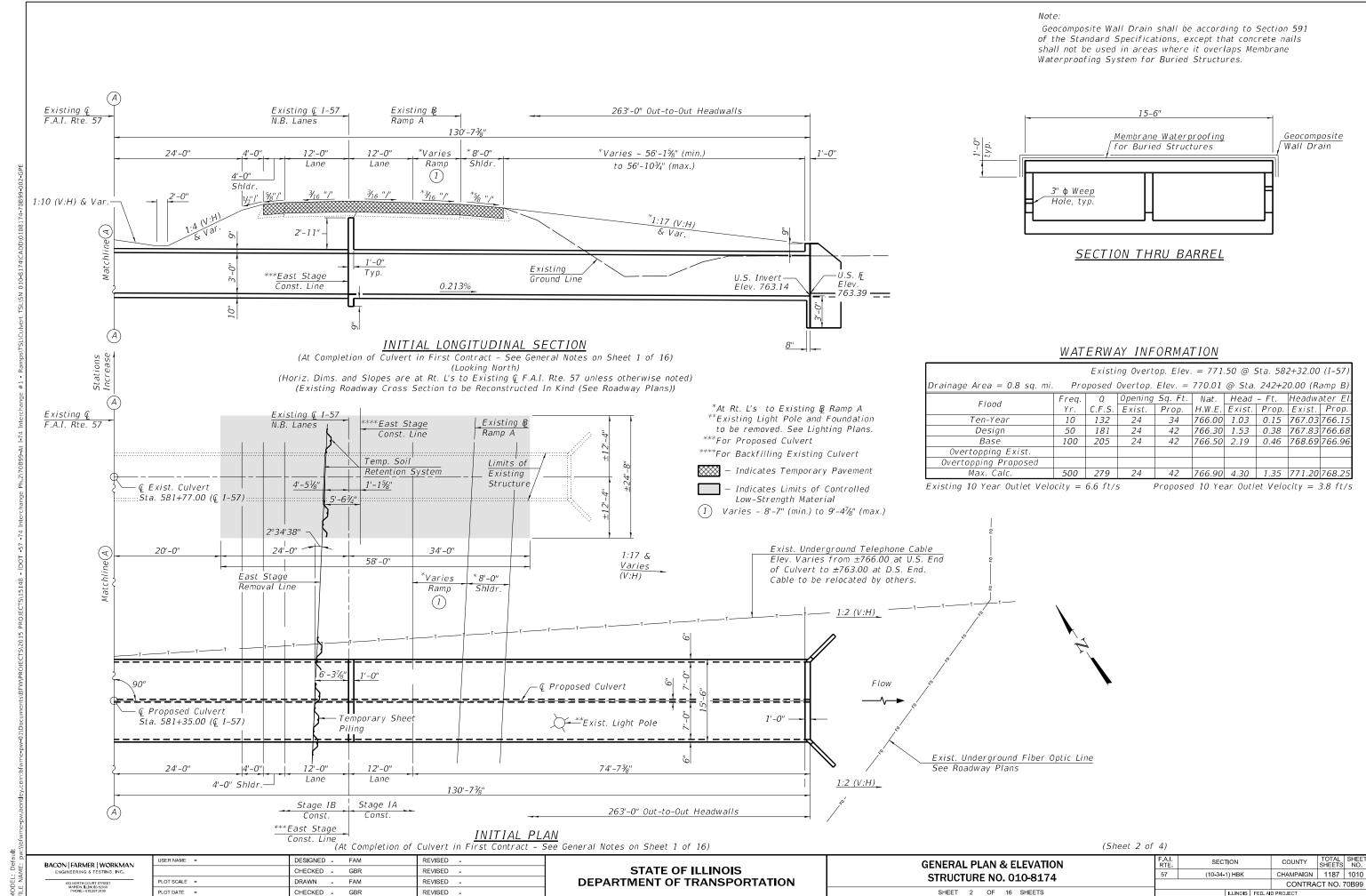
BSD-1

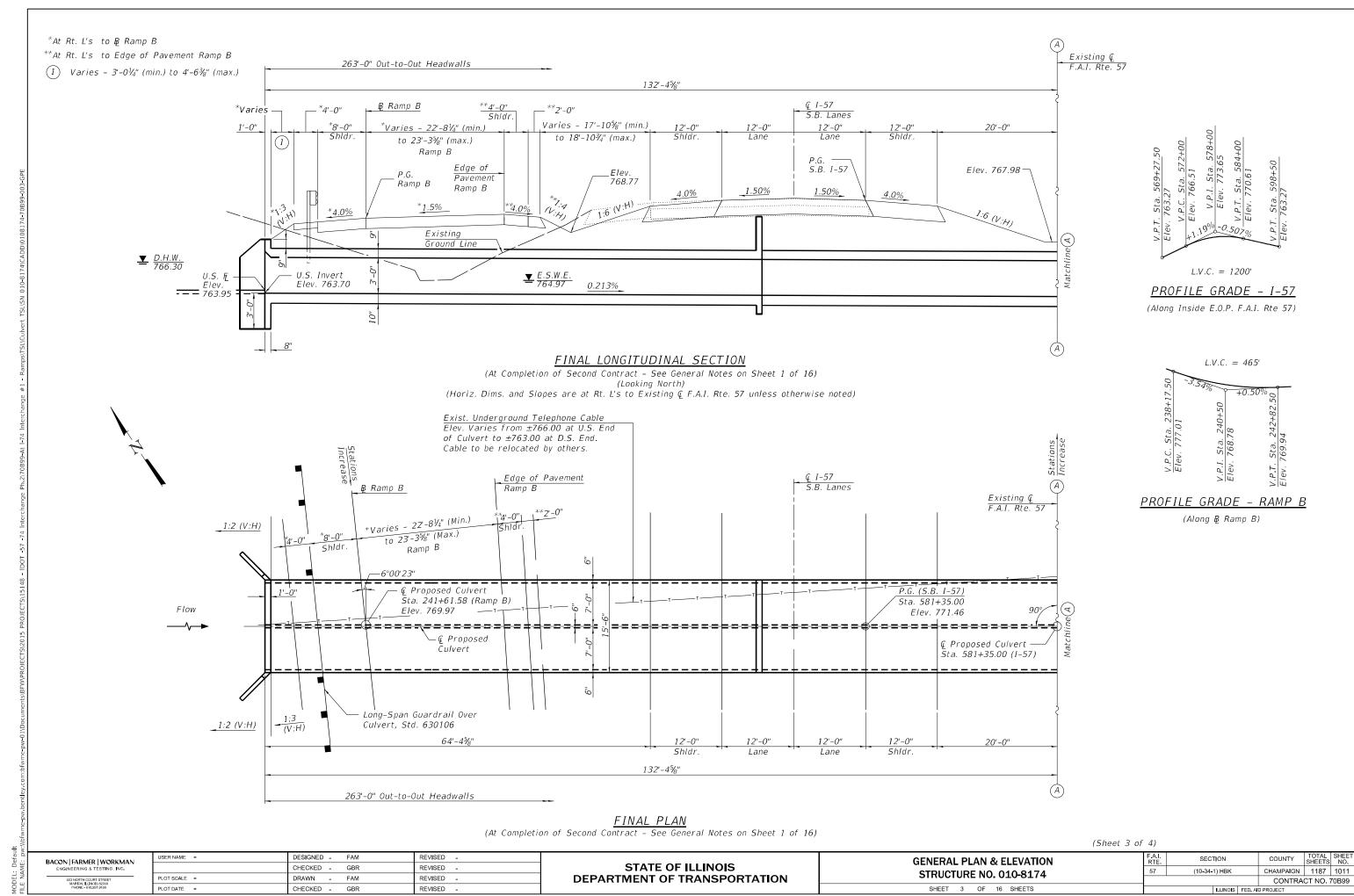
1-1-2020

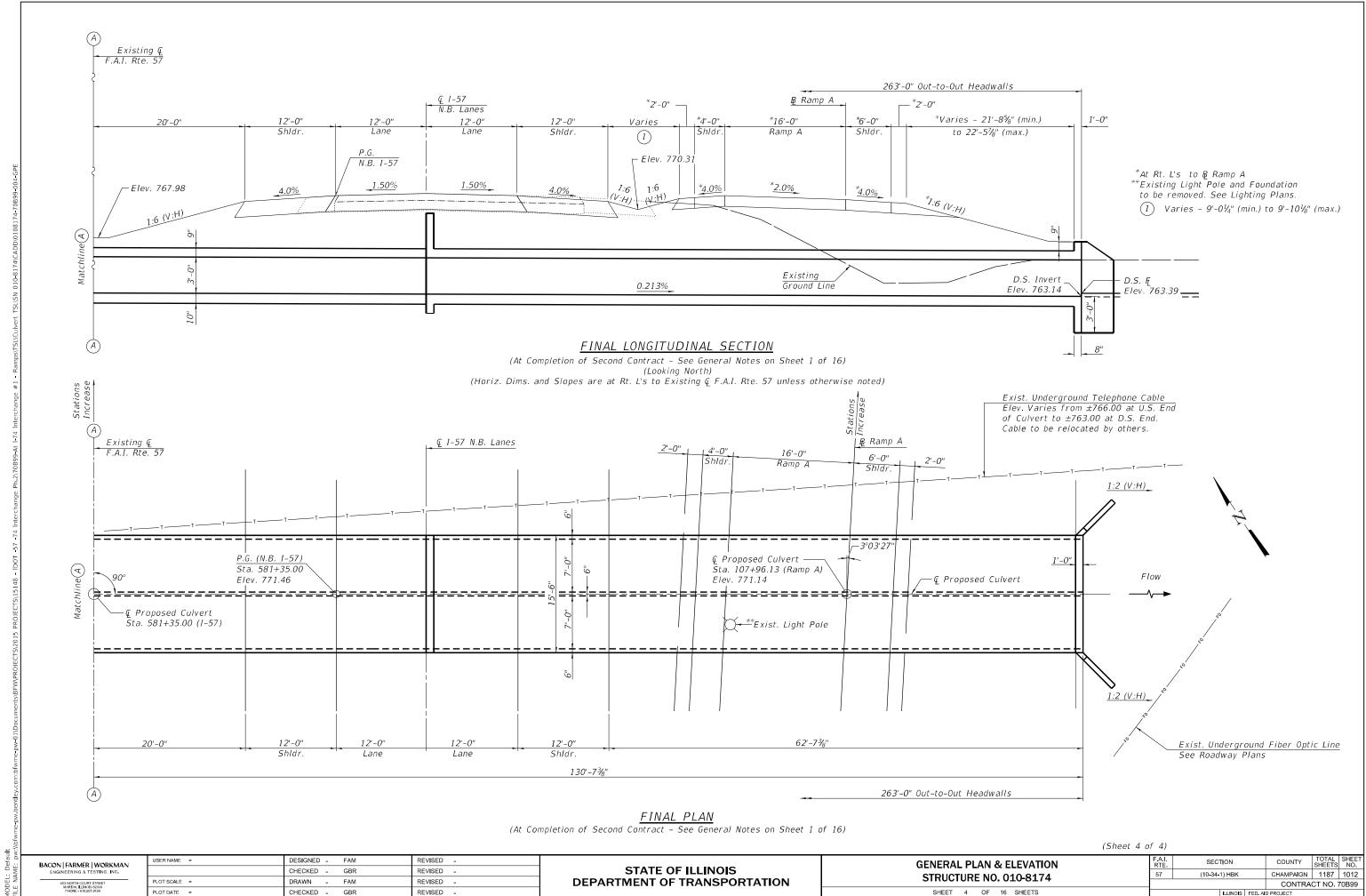
| BACON FARMER WORKMAN | USER NAME = | DESIGNED - JGY | REVISED - |
|---|--------------|----------------|-----------|
| ENGINEERING & TESTING, INC. | | CHECKED - GBR | REVISED - |
| 403 NORTH COURT STREET MARION, LUINOIS 62959 | PLOT SCALE = | DRAWN - JGY | REVISED - |
| PHONE - 618-997-9190 | PLOT DATE = | CHECKED - GBR | REVISED - |



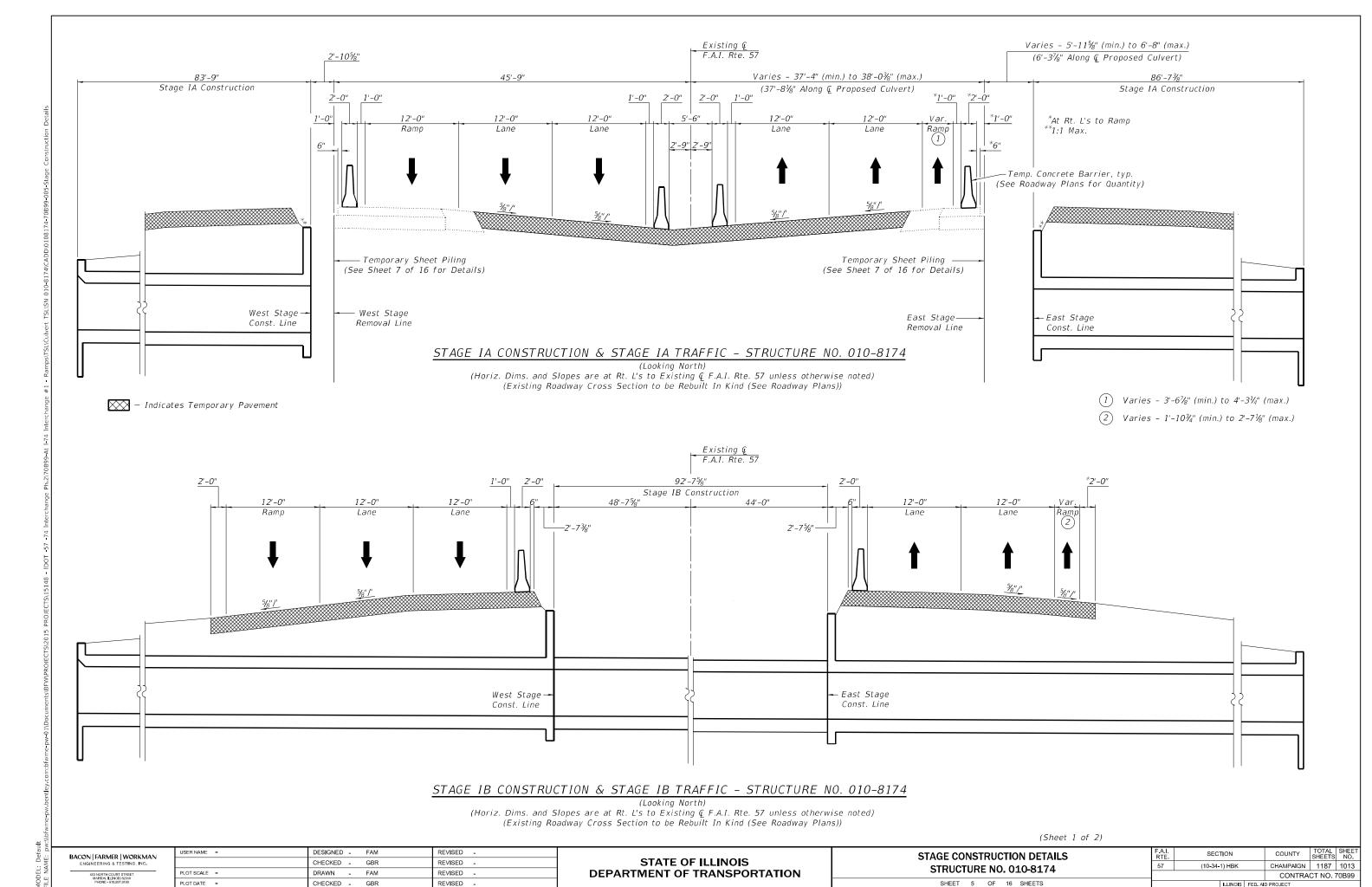
3/9/2021 7:48:50 AM



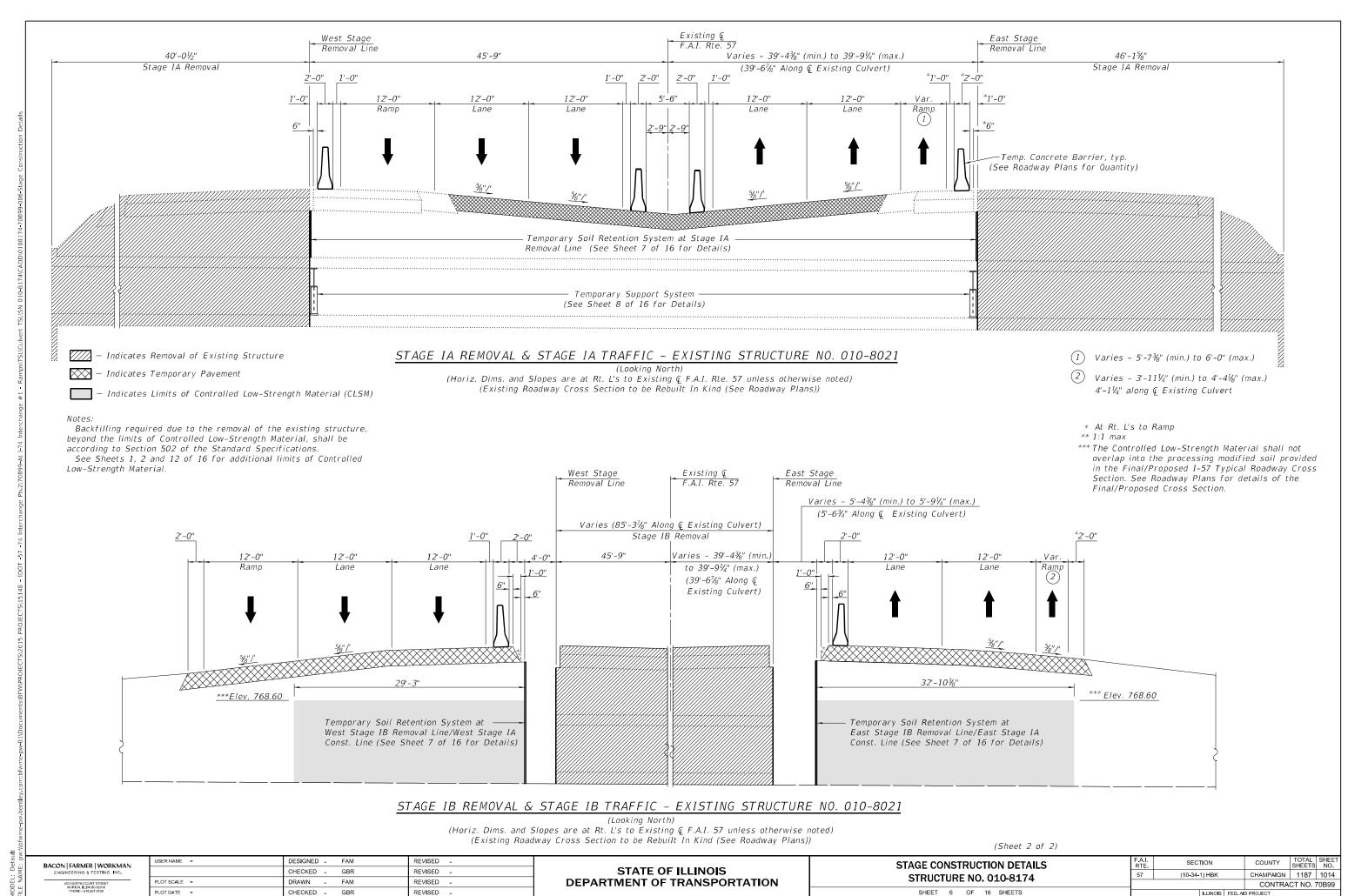




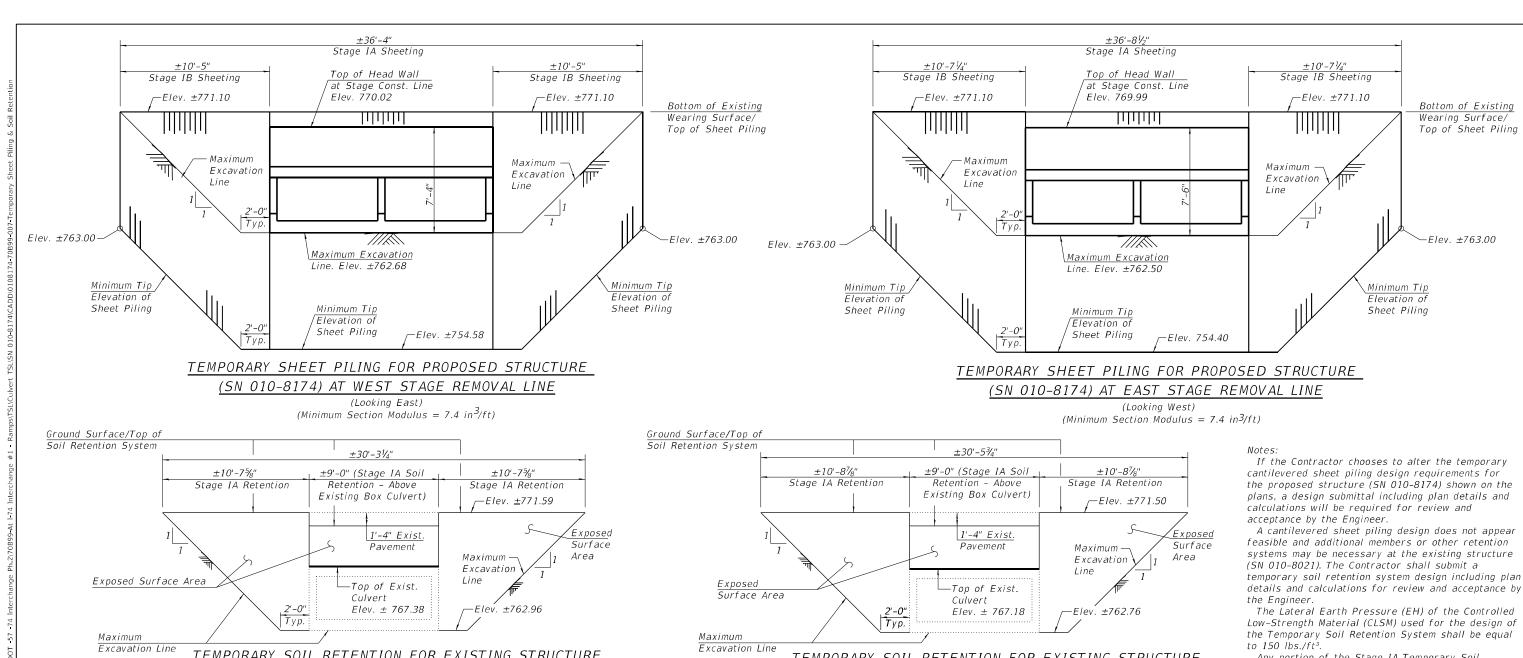
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TEMPORARY SOIL RETENTION FOR EXISTING STRUCTURE (SN 010-8021) AT WEST STAGE REMOVAL LINE (STAGE IA)

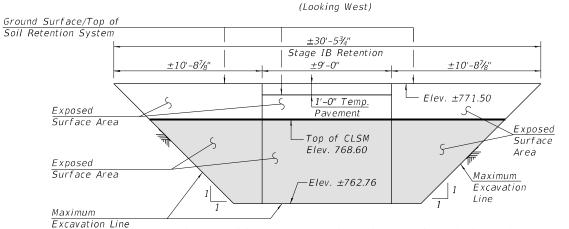
(Looking East) Groun<u>d Surface/Top of</u> Soil Retention System ±30'-31/4" Stage IB Retention ±10'-75/8" ±10'-7%" Elev. ±771.59 1'-0" Temp Exposed Surface Area Surface Top of CLSM Area Elev. 768.60 Exposed Surface Area Maximum Excavation Elev. ±762.96 Excavation Line

> TEMPORARY SOIL RETENTION FOR EXISTING STRUCTURE (SN 010-8021) AT WEST STAGE REMOVAL LINE (STAGE IB)/ WEST STAGE CONSTRUCTION LINE (STAGE IA)

> > (Looking East)

DESIGNED - FAM JSER NAME = BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. CHECKED - GBR REVISED CHECKED -

TEMPORARY SOIL RETENTION FOR EXISTING STRUCTURE (SN 010-8021) AT EAST STAGE REMOVAL LINE (STAGE IA)



TEMPORARY SOIL RETENTION FOR EXISTING STRUCTURE (SN 010-8021) AT EAST STAGE REMOVAL LINE (STAGE IB)/

EAST STAGE CONSTRUCTION LINE (STAGE IA)

(Looking West)

Any portion of the Stage IA Temporary Soil Retention System used for Stage IB shall be designed for the largest force effects produced during Stage IA or Stage IB.

See Sheets 1, 2, 6 and 12 of 16 for additional limits of Controlled Low-Strength Material.

See Sheet 12 of 16 for Controlled Low-Strength Material backfill details.

Overlapping exposed surface areas in both Stage IA and Stage IB were considered as one area in computing the total quantity of Temporary Soil Retention System.

— Indicates Limits of Controlled Low-Strength Material (CLSM)

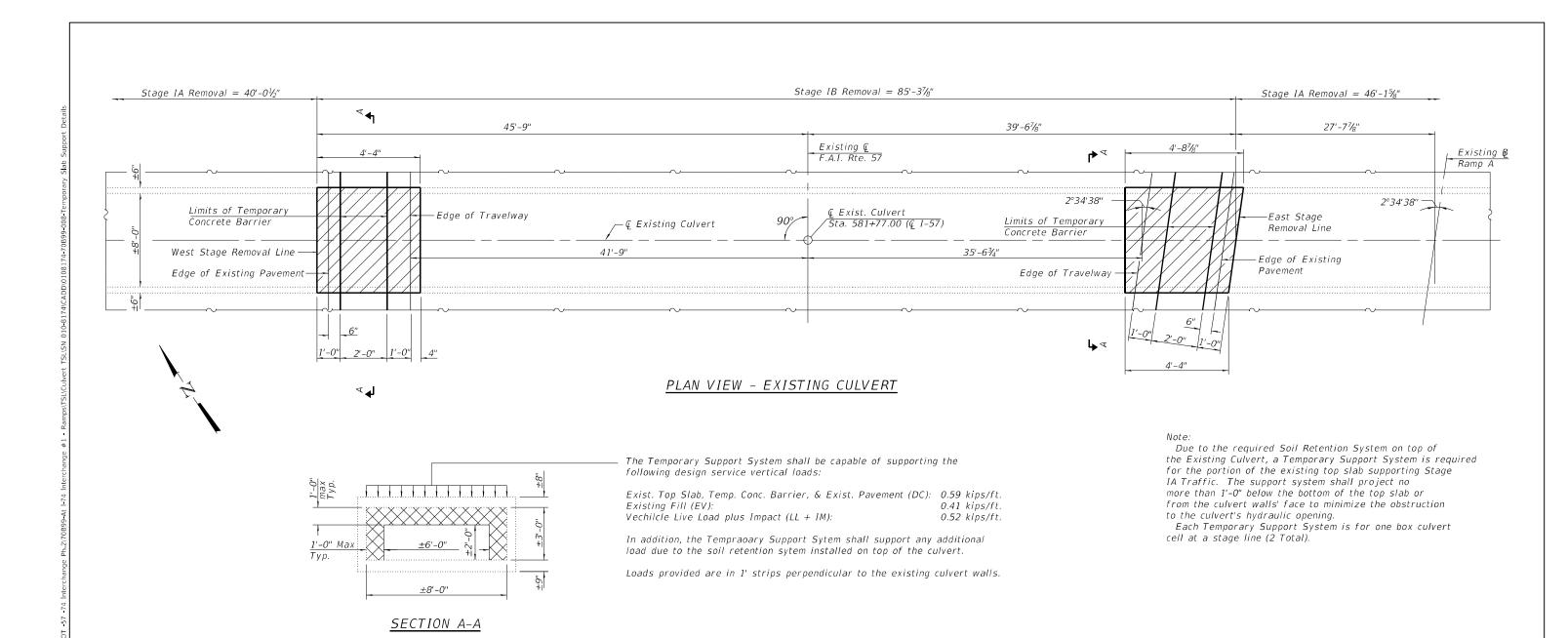
BILL OF MATERIAL

| Temporary Sheet Piling Sq. Ft. 1069 Temporary Soil Retention System Sq. Ft. 359 | Item | Unit | Total |
|--|---------------------------------|---------|-------|
| Temporary Soil Retention System Sq. Ft. 359 | Temporary Sheet Piling | Sq. Ft. | 1069 |
| | Temporary Soil Retention System | Sq. Ft. | 359 |

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTION COUNTY TEMPORARY SOIL RETENTION & TEMPORARY SHEET PILING (10-34-1) HBK CHAMPAIGN 1187 1015 **STRUCTURE NO. 010-8174** CONTRACT NO. 70B99 SHEET 7 OF 16 SHEETS

3/9/2021 7:51:11 AM



 Indicates Area of Existing Top Slab Requiring Support



Indicates the box culvert cell requires a Temporary Support System and the Max. Permissible Obstructed Area

BILL OF MATERIAL

SECTION

(10-34-1) HBK

COUNTY

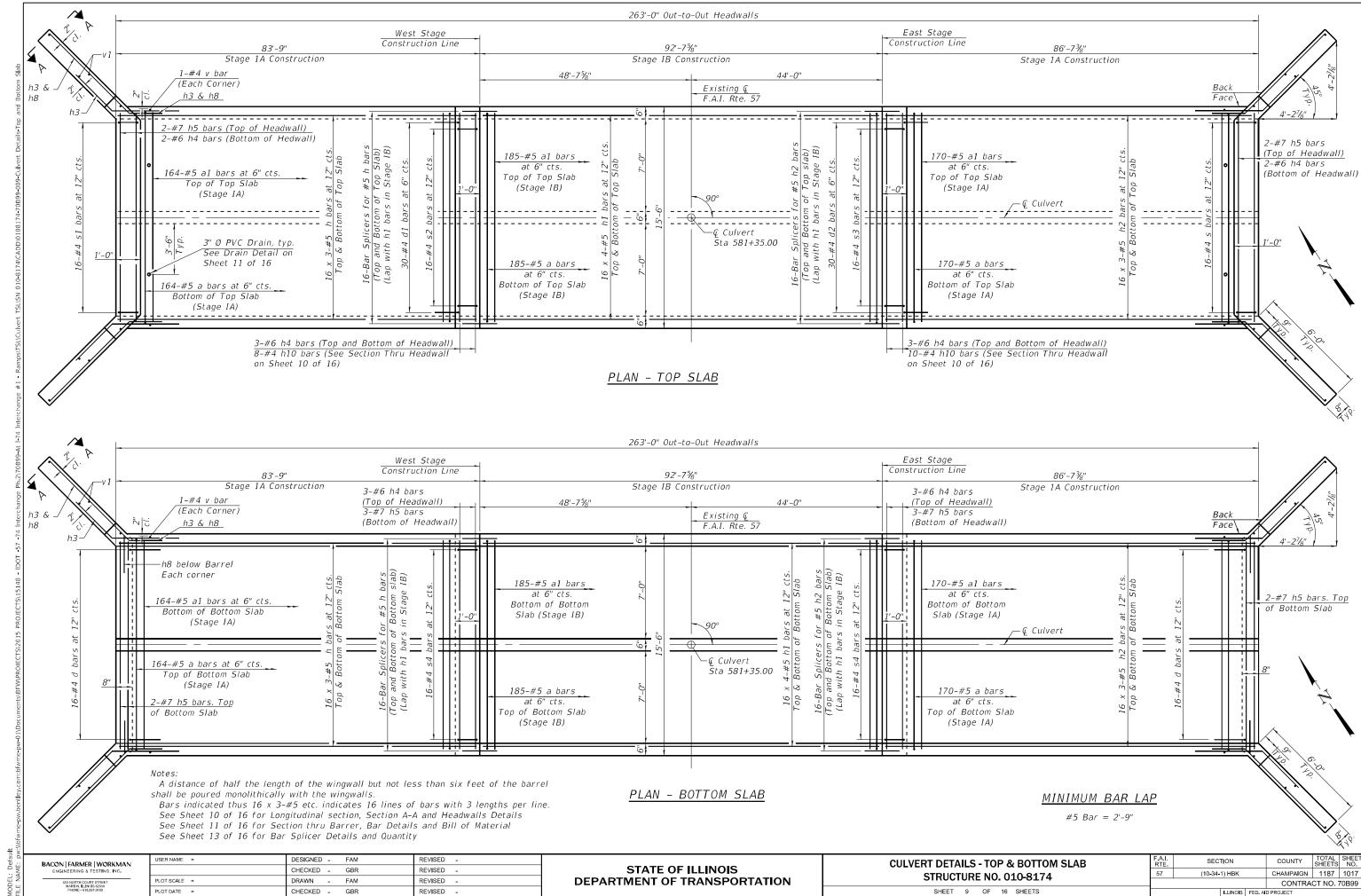
CHAMPAIGN 1187 1016

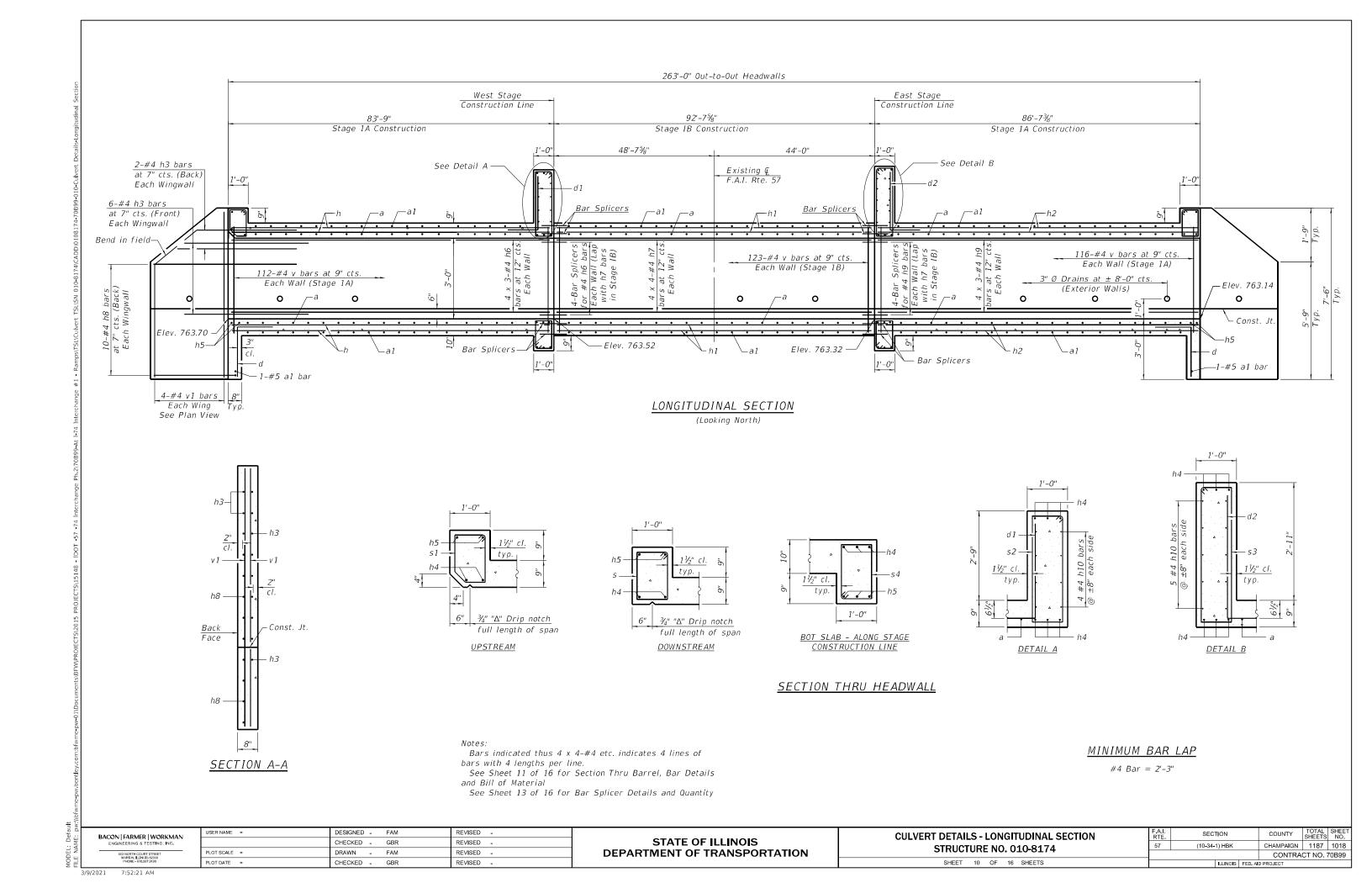
CONTRACT NO. 70B99

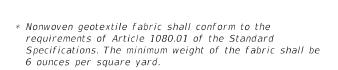
| ITEM | UNIT | TOTAL |
|--------------------------------------|------|-------|
| Temporary Support System, Location 3 | Each | 2 |

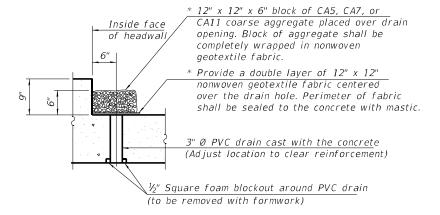
BACON FARMER | WORKMAN ENGINEERING & TESTING, INC.

| MONORPHICCURT STREET | MORKEL | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180



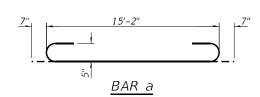


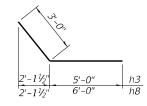




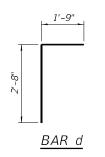
DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



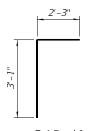


BARS h3 & h8

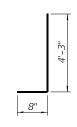


2'-3"

BAR d2







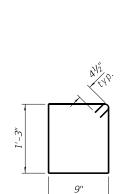
BAR v



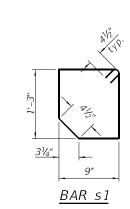
| a 1038 #5 16'-4' a1 1040 #5 15'-2' d 32 #4 4'-5' d1 30 #4 5'-4' d2 30 #4 5'-6' | " <u> </u> |
|--|--------------|
| d 32 #4 4'-5' d1 30 #4 5'-4' | " |
| d1 30 #4 5'-4' | " - |
| d1 30 #4 5'-4' | " - |
| | |
| d2 30 #4 5'-6' | " - |
| | |
| | |
| h 192 #5 29'-8 | |
| h1 256 #5 25'-2 | |
| h2 192 #5 30'-8 | |
| h3 32 #4 8'-0" | |
| h4 22 #6 15'-2 | |
| h5 14 #7 15'-2 | <i></i> |
| h6 36 #4 29'-4 | <i>u</i> ——— |
| h7 48 #4 24'-10 | |
| h8 40 #4 9'-0' | |
| h9 36 #4 30'-4 | |
| h10 18 #4 15'-2 | |
| | |
| s 16 #4 4'-9" | |
| s1 16 #4 4'-7" | |
| s2 16 #4 8'-9" | |
| s3 16 #4 9'-1" | |
| s4 32 #4 4'-11 | !" |
| | |
| v 1057 #4 4'-11 | |
| v1 16 #4 7'-2' | ' |

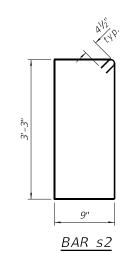
Concrete Box Culverts Cu. Yd. 293.4 Reinforcement Bars Pound 60,960

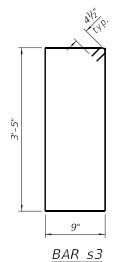
BILL OF MATERIAL

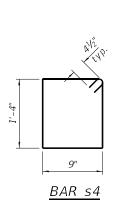


BAR s









| | RMER WORKMAN NG & TESTING, INC. |
|-------|--|
| MARIO | TH COURT STREET N, ILLINOIS 62959 F - 618 997 9190 |

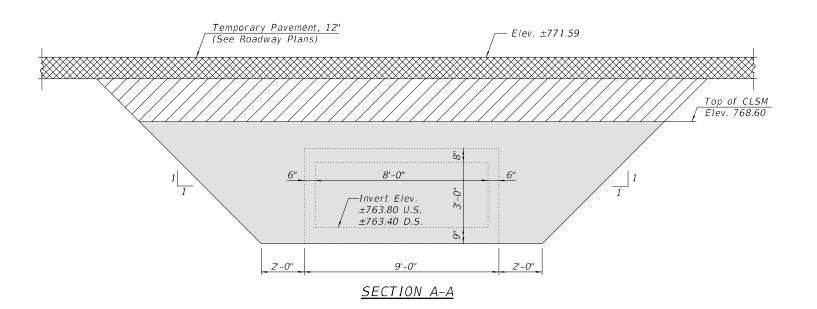
| CULVERT SECTION AND DETAILS | | | | | | | | | |
|------------------------------------|--------|-----|------|-----|---------|--|--|--|--|
| | STRUCT | URI | E NC | . 0 | 10-8174 | | | | |
| | OUEET | | 0.5 | | OUEETO | | | | |

| λ.I. ΓΕ. | SECTION | | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------------|----------|-----------|-----------------|--------------|
| 7 | (10-34-1) HBK | | CHAMPAIGN | 1187 | 1019 |
| | | CONTRA | CT NO. 7 | 70B99 | |
| | ILLINOIS | FED. All | D PROJECT | | |

*****LONGITUDINAL SECTION - EXISTING STRUCTURE NO. 010-8021

(At Completion of Culvert Removal in First Contract - See General Notes on Sheet 1 of 16) (Looking North)

(Horiz. Dims. and Slopes are at Rt. L's to Existing & F.A.I. Rte. 57 unless otherwise noted) (Existing Roadway Cross Section to be Reconstructed In Kind (See Roadway Plans))



BILL OF MATERIAL

| Item | Unit | Total |
|----------------------------------|---------|-------|
| Controlled Low-Strength Material | Cu. Yd. | 467 |

(1) Varies - $12'-7\frac{3}{4}$ " (min.) to $12'-9\frac{7}{8}$ " (max.)

(2) Varies $-6'-11\frac{3}{4}$ " (min.) to $7'-1\frac{5}{8}$ " (max.)

(3) $Varies - 10'-11\frac{3}{4}$ " (min.) to $11'-5\frac{3}{8}$ " (max.)

(4) Varies - $10'-2\frac{7}{8}$ " (min.) to 10'-8" (max.)

* At Rt. L's to Existing & Ramp A

** At Rt. L's to Existing & Ramp B

*** Along & Existing Culvert

▶∢

****Temporary Soil Retention Sysytem, and Temporary Support System details not shown for clarity. See Sheets 6 thru 8 of 16 for details.

- Indicates Backfilling Due to Removal of Existing Structure No. 3

— Indicates Limits of Controlled Low-Strength Material

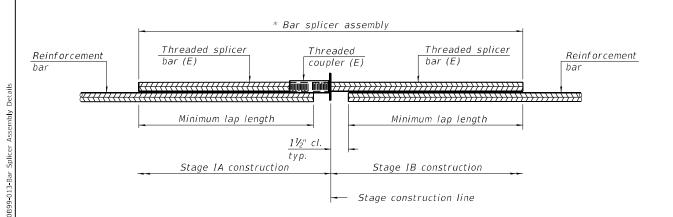
Backfilling required due to the removal of the existing structure, beyond the limits of Controlled Low-Strength Material, shall be according to Section 502 of the Standard Specifications. Also, backfilling required due to the removal of the existing structure will not be paid for as a separate item but shall be included with the cost of Removal of Existing Structures No. 3.

The Controlled Low-Strength Material (CLSM) shall not overlap into the processing modified soil provided in the Final/Proposed I-57 Typical Roadway Cross Section. See Roadway Plans for details of the Final/Proposed Cross Section.

See Roadway Plans for embankment required beyond the existing ground line.

See Sheets 1, 2, and 6 of 16 for additional details of Controlled Low-Strength Material (CLSM).

| BACON FARMER WORKMAN | USER NAME = | DESIGNED - FAM | REVISED - |
|---|--------------|----------------|-----------|
| ENGINEERING & TESTING, INC. | | CHECKED - GBR | REVISED - |
| 403 NORTH COURT STREET MARION, LLINOIS 82959 PHONE - 618.997.9190 | PLOT SCALE = | DRAWN - FAM | REVISED - |
| | PLOT DATE = | CHECKED - GBR | REVISED - |



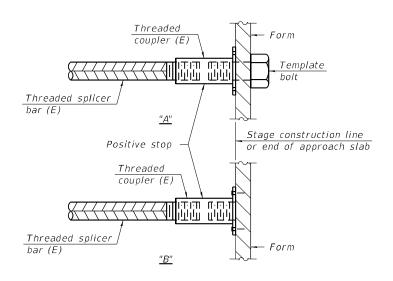
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

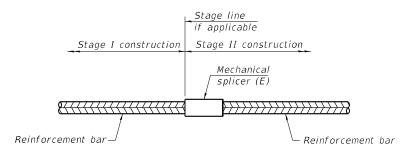
| Location | Bar | No. assemblies | Minimum |
|-------------|------|----------------|------------|
| | size | required | lap length |
| Top Slab | #5 | 64 | 2'-9" |
| Bottom Slab | #5 | 64 | 2'-9" |
| Side Walls | #4 | 24 | 2'-3" |
| | | | |
| | | | |



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|-------------|----------------------------|
| | | |
| | | |
| | | |

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements

for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-1-2020

| BACON FARMER WORKMAN | USER NAME = | DESIGNED - FAM | REVISED - |
|---|--------------|----------------|-----------|
| ENGINEERING & TESTING, INC. | | CHECKED - GBR | REVISED - |
| 403 NORTH COURT STREET MARKON & UNION 82959 | PLOT SCALE = | DRAWN - FAM | REVISED - |
| PHONE - 618-997-9190 | PLOT DATE = | CHECKED - GBR | REVISED - |

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS **STRUCTURE NO. 010-8174** SHEET 13 OF 16 SHEETS

SECTION COUNTY (10-34-1) HBK CHAMPAIGN 1187 1021 CONTRACT NO. 70B99

| W | Illinois Department of Transportation Division of Highways Kaskaskia Engineering Group |
|---|---|
|---|---|

SOIL BORING LOG

Page $\underline{1}$ of $\underline{2}$

3 1.57 12.6

| | Division of Highw Kaskaskia Engin | ways leering Group | | | | | | | | | | Date | 1/2 | 2/15 |
|----------------------------------|--|-----------------------------|---------------|-----------------------|-----------------------|----------------------------|------------------------------|--|-------|----------------|-----------------------|-----------------------|----------------------|-----------------------|
| ROUTE _ | I-57/74 | DESCR | IPTION | 1 | | West | Abut B | loomington Rd. over I-57 | | LOGGE | DBY | | TLM | |
| SECTION | 10(5-1-RS-1, | 14-1,6)R | LO | CATI | ON _ | , SEC. | 34, T | VP. 20N, RNG. 8E, 3 PM | | | | | | |
| COUNTY | Champaign | DR | ILLING | ME | THOD | | | HSA H | AMMER | TYPE | | A | uto | |
| Station BORING NO Station Offset | O | gton Rd I- +27 t Left | - <u>57</u>) | D E P T H | B L O W S | U C S Qu (tsf) | M O I S T (%) | Surface Water Elev. Stream Bed Elev. Groundwater Elev.: ▼ First Encounter ▼ Upon Completion ▼ After Hrs. | 715.5 | ft ft ft | D E P T H | B L O W S | U c s Qu (tsf) | M O I S T |
| 6" HMA | | 8 | 790.00 | | | (10.) | (,,, | SILTY CLAY LOAM TILL: | | | (., | | (10.) | (70) |
| SILTY CLA | ver sand base Y LOAM TILL: k/Gray, very st | | 789.17 | | 4 | | | very stiff | | | | | | |
| | | | | | 5 7 | 3.5 B | 27.2 | | | | _ | | | |
| | | | | ş- | 3 | | | | | | - | 3 | | |
| | | | | -5 | 3 | 2.0 P | 27.4 | | | | -25 | 5 6 | 2.27 B | 14.6 |
| | | | | | 3 3 6 | 1.32 B | 22.2 | | | | -20 | | | |
| | | | | -10 | 3 4 6 | 2.89 B | 23.8 | SILTY CLAY LOAM TILL: | Grav | 760.50 | -30 | 2 7 11 | 3.5 B | 13.0 |
| | | | | - | 3 3 5 | 2.47 B | 25.4 | very stiff | Olay, | | | | | |
| | | | 775.50 | -15 | 3 4 5 | 1.57 B | 25.2 | | | | -35 | 3 5 5 | 1.81 B | 12.3 |
| SILTY CLA stiff, organi | Y LOAM TILL: cs | Very | | | 3 4 5 | 2.27 B | 25.4 | | | | | | | |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

5 1.81 26.1

771.00

SILTY CLAY: Olive Brown



ROUTE _

SOIL BORING LOG

Page $\underline{2}$ of $\underline{2}$

Date 1/22/15

| I-57/74 | DESCRIPTION | West Abut Bloomington Rd. over I-57 | LOGGED BY | TLM |
|-------------|-------------|-------------------------------------|-----------|-----|
| 10/5 1 50 1 | 44.4.0\D | 050 04 THE CON DIG OF COM | | |

| COUNTY Champaign DRILLING | G MET | THOD | - | | HSA | HAMMER | TYPE | | Α | uto | |
|---|-----------------------|-----------------------|----------------------------|-----------------------|---|---------------|------------|-----------------------|-----------------------|----------------------------|-----------------------|
| ### STRUCT. NO | D E P T H | B L O W S | U C S Qu (tsf) | M O I S T | Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion After Hrs. | 715.5 | _ ft ft | D E P T H | B L O W S | U C S Qu (tsf) | N O I S T |
| BILTY CLAY LOAM TILL: Gray, ery stiff <i>(continued)</i> | | | | | SILTY CLAY LOAM TI very stiff (continued) | LL: Gray, | | | | | |
| | -45 | 2 4 5 | 1.24 B | 12.6 | | | | -65 | 7 8 | 1.65 B | 16 |
| | | 3 3 | 1.65 | 12.1 | SAND and GRAVEL: 0 | Coarse | 721.50 | | 4 8 | | 16 |
| | -50 | 7 | В | | sand and fine gravel | | | -70 | 15 | | |
| | -55 | 4 6 8 | 2.06 B | 10.4 | | | 715.50 | -75 | 12 17 23 | | 11 |
| | | | | | | ia di bolling | | | | | |
| | | 2 | 1.24 | 10.2 | | | | _ | | | |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC.

JSER NAME = DESIGNED - FAM REVISED -CHECKED - GBR REVISED -DRAWN - FAM REVISED -PLOT DATE = CHECKED - GBR REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION **SOIL BORING LOGS** COUNTY (10-34-1) HBK CHAMPAIGN 1187 1022 **STRUCTURE NO. 010-8174** CONTRACT NO. 70B99 SHEET 14 OF 16 SHEETS

3/9/2021 7:53:59 AM

| (A) | Illinois Department of Transportation |
|-----|---------------------------------------|
| | Kaskaskia Engineering Group |

SOIL BORING LOG

Page <u>1</u> of <u>2</u>

Date 2/10/15

| ROUTE 1-57/74 DESCRI | PTION _ | | Pie | er Bori | ng Bloomington Road | LOGGE | DBY | _ | TLM | |
|---|-------------|-----------------------|-------------|------------------|--|--------------------|-----------|-----------------------|-------------|-----------------------|
| SECTION 10(5-1-RS-1, 14-1,6)R COUNTY Champaign DRII | | | | . 34, T | NP. 20N, RNG. 8E, 3 PM HSA HAMME F | TVDE | | ٨١ | JTO | |
| COUNTYChampaigh DRI | LLING WE | THOD | | | HOA HAWIWER | LITE | | A | 010 | |
| STRUCT. NO. Station BORING NOB-2 (Bloomington Rd I-8 | P P | B L O W S | U C S | M O I S | Surface Water Elev. n/a Stream Bed Elev. Groundwater Elev.: | ft | 1 - 1 | B L O W S | U C S | M O I S T |
| Station 157+30 Offset 35.0ft Left | - | | Qu (tsf) | (%) | ✓ First Encounter 727.0 ✓ Upon Completion | ft | H (ft) | 3 | Qu (tsf) | (%) |
| Ground Surface Elev. 770.00 SILTY CLAY: Brown and Black, | _π (11) | | (131) | (70) | ▼ After Hrs. SILTY CLAY TILL: Gray, stiff | ft | (11) | | (LSI) | (70, |
| very stiff | 9 | - | | | (continued) | | - | | | |
| no topsoil | - | 2 | | | | | - | | | |
| | _ | 4 | 2.5 | 22.0 | | | | | | |
| | | 5 | Р | | | | | | | |
| SILTY CLAY LOAM: Brown, soft, | 67.00 | - | | | | | | | | |
| wet | _ | 1 | | | | | - | 2 | | |
| | - | 1 | 0.25 | 24.2 | • | | - | 3 | 1.24 | 11.0 |
| | -6 | 1 | Р | | | | -25 | 6 | В | |
| | 64.50 | | | | | | | | | |
| SILTY CLAY TILL: Brown, stiff | <u></u> | _ | | | | | _ | | | |
| | | 2 | 1.07 | 14.5 | | 740.00 | - | | | |
| | - | 5 | В | 14.0 | SILTY CLAY TILL: Gray, very stif | <u>743.00</u> f | - | | | |
| | _ | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | |
| | | | | | | | | | | |
| | <u></u> | 3 | 4.05 | 440 | | | | 3 | 0.00 | 44. |
| | - | 4 7 | 1.65 B | 14.6 | | | - | 6 8 | 2.06 B | 11.8 |
| 7 | 10 59.50 | , | ь | | | | -30 | 0 | ь | |
| SILTY CLAY TILL: Gray, stiff | 39.30 | | | | | | - | | | |
| | _ | 3 | | | | | | | | |
| | | 6 | 5000 | 11.2 | | 738.00 | | | | |
| | | 9 | В | | SILTY CLAY LOAM TILL: Gray, stiff | | - | | | |
| | - | - | | | | | | | | |
| | | 3 | | | | | | 2 | | |
| | | 5 | 1.90 | 11.8 | * | | | 4 | 1.24 | 12.4 |
| | -15 | 9 | В | | | | -35 | 5 | В | |
| | _ | - | | | | | - | | | |
| | | 2 | | | | | - | | | |
| | | 5 | 1.4 | 11.9 | | | | | | |
| | - | 7 | В | | | | | | | |
| | | | | | | | | | | |
| | - | 3 | | | | | | 5 | | |
| | - | 5 | 1.24 | 12.5 | | | - | 5 | 0.99 | 15 (|
| | -20 | - | В | | | | -40 | 5 | В | |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation

BORING NO.B-2 (Bloomington Rd I-57)

SOIL BORING LOG

Page 2 of 2

Date 2/10/15

6 B

| ROUTEI-57/74 DESCRIPTIO | N | Pie | er Bori | ng Bloomington Road | LOGG | LOGGED BY | | | <u> </u> |
|---------------------------------|-------------|-------------|----------------|---|-------------|-------------|-------------|-------------|-------------|
| SECTION10(5-1-RS-1, 14-1,6)R LC | CATION | , SEC. | 34, T \ | WP. 20N, RNG. 8E, 3 PN | 1 | | | | |
| COUNTY Champaign DRILLING | G METHO | | | HSA | HAMMER TYPE | · | Αl | JTO | |
| STRUCT. NO | D B E L P O | U C S | M O I | Surface Water Elev. Stream Bed Elev. | n/a ft | D E P | B L O | U C S | M O I |

157+30 ☑ First Encounter ▼ Upon Completion (tsf) (%) Ground Surface Elev. 770.00 ft SILTY CLAY LOAM TILL: Gray, stiff (continued) SILTY CLAY LOAM TILL: Gray, stiff (continued) SILTY CLAY LOAM: Gray, very SAND: Gray, medium, very loose WH 4 2.06 12.6

₋₄₅ WH

SILTY CLAY LOAM: Gray, stiff 12 5 1.24 13.6 trace gravel 13 7 B

SILTY CLAY LOAM TILL: Gray, very hard 6 2.47 13.2 12 7.62 10.5 14 695.00 ₋₇₅ 10 B В

SILTY CLAY LOAM TILL: Gray, stiff 1.65 12.6

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC.

DESIGNED - FAM REVISED -JSER NAME = CHECKED - GBR REVISED -DRAWN -REVISED CHECKED -REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION COUNTY **SOIL BORING LOGS** (10-34-1) HBK CHAMPAIGN 1187 1023 **STRUCTURE NO. 010-8174** CONTRACT NO. 70B99

End of Boring

3/9/2021 7:54:28 AM

SHEET 15 OF 16 SHEETS

Illinois Department of Transportation

SOIL BORING LOG

Page $\underline{1}$ of $\underline{2}$

| Division of Highways Kaskaskia Engineering Grou | р | | | | | | | Da | ite | 1/22/15 |
|---|----------------|------------|------------------|----------------------------|------------------------------|--|------------------|------|-------|--------------------|
| ROUTEI-57/74 DESCI | RIPTION | I | | Eas | st Abut | Bloomington Rd./I-57 | LOGGED | BY _ | TI | _M |
| SECTION 10(5-1-RS-1, 14-1,6)F | <u> LO</u> | CATI | ON _ | , SEC. | 34, T \ | WP. 20N, RNG. 8E, 3 PM | | | | |
| COUNTY Champaign DI | RILLING | ME | THOD | | | HSA HAMMER | TYPE | | Auto | |
| STRUCT. NO. | <u>l-57)</u> | DEPTH (ft) | B C W S | U C S Qu (tsf) | M O I S T (%) | Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion After Hrs. | ft ft ft | - | V | O I S U T |
| 19" HMA (no base course) FILL: Silty Clay Loam, brown, hard | 789.72 I | | 5 4 | 4.5 | 11.8 | SILTY CLAY: Gray/Brown/Black, very stiff | - | | | |
| SILTY CLAY: Black, stiff | 786.80 | -5 | 6 3 4 8 | 2.89 B | 22.0 | | - | -25 | 3.3 | 30 25.3 |
| SILTY CLAY: Black/Brown, stiff | <u>783.80</u> | | 4 4 6 | 1.5 P | 27.8 | SILTY CLAY LOAM TILL: Olive Brown/Gray, soft | | | | |
| SILTY CLAY: Brown, very stiff | 78 <u>1.30</u> | -10 | 3 3 7 | 1.65 B | 18.5 | | - | -30 | 3 0.7 | 4 14.8 |
| | | 3 | 3 3 6 | 2.47 B | 18.9 | SILTY CLAY LOAM TILL: Brown, | 759.30 | | | |
| | | | 3 5 6 | 2.89 B | 23.0 | | - | 35 | 9/ | 55 14.7 |
| SILTY CLAY: Dark Gray, very stiff | _773.80 | | 3 4 6 | 3.50 | 25.6 | SILTY CLAY LOAM TILL: Gray, hard | 754.30 - - | - 6 | 3 3.7 | |
| | 771.30 | -20 | 6 | В | | | | -40 |) B | |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation

SOIL BORING LOG

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1/22/15

| ROUTE | 1-57/74 DESCRIF | OIT | | | Eas | t Abut | Bloomington Rd./I-57 | | LOGGE | D BY | | TLM | |
|-----------------------------------|--------------------------|------|------------------|------------------|-------------|------------------|---|---------------|---------------|------------------|------------------|-------------|------------------|
| SECTION _ | 10(5-1-RS-1, 14-1,6)R | LO | CATI | ON _ | , SEC. | 34, TV | VP. 20N, RNG. 8E, 3 P | М | | | | | |
| COUNTY | Champaign DRIL | LING | ME. | THOD | | | HSA | HAMMER | IAMMER TYPE _ | | Auto | | |
| Station | B-3 (Bloomington Rd I-5 | _ | D E P T | B L O W | U C S | M 0 1 8 | Surface Water Elev. Stream Bed Elev. Groundwater Elev.: | | _ ft | D E P T | B L O W | U C S | M O I S |
| Station Offset | 159+25 12.0ft Right | _ | Н | S | Qu | Т | ☑ First Encounter ☑ Upon Completion | 725.0 | | Н | S | Qu | Т |
| Ground Sur | face Elev. 791.30 | ft | (ft) | | (tsf) | (%) | ▼ After Hrs. | | | (ft) | | (tsf) | (%) |
| SILTY CLAY ard <i>(continu</i> | LOAM TILL: Gray, eed) | | _ | | | | SILTY CLAY LOAM T hard (continued) | ILL: Gray, | | 8- | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | 5 | | | | | | - | 7 | | |
| | | | 45 | 6 8 | 3.50 B | 12.1 | | | | -65 | 20 33 | 2.89 B | 7.6 |
| | | | -45 | | | | | | | -65 | | | |
| | | | - | | | | | ∇ | | | | | |
| | | | | | | | | | 724.30 | | | | |
| | | | _ | | | | SAND & GRAVEL: Me coarse sand and fine | | | - | | | |
| | | | | _ | | | | | | | • | | |
| | | | | 5 6 | 4.12 | 11.8 | | | | | 6 7 | | 15.7 |
| | | | -50 | 9 | В | | | | | -70 | 14 | | |
| | | | _ | | | | | | | - | | | |
| | | | | | | | | | | | | | |
| | | | _ | | | | | | | | | | |
| | | | | | | | | | | _ | | | |
| | | | _ | 4 | | | | | | - | 6 | | |
| | | | _ | 6 8 | 2.27 B | 11.8 | | | 740.00 | _ | 5 11 | | 12.8 |
| | | | 55 | - 0 | | | E | End of Boring | 716.30 | -75 | 11 | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | _ | | | |
| | | | | | | | | | | - | | | |
| | | | | | | | | | | | | | |
| | | | | 3 6 | 2.27 | 11.3 | | | | | | | |
| | | | -60 | 8 | В | | | | | -80 | | | |

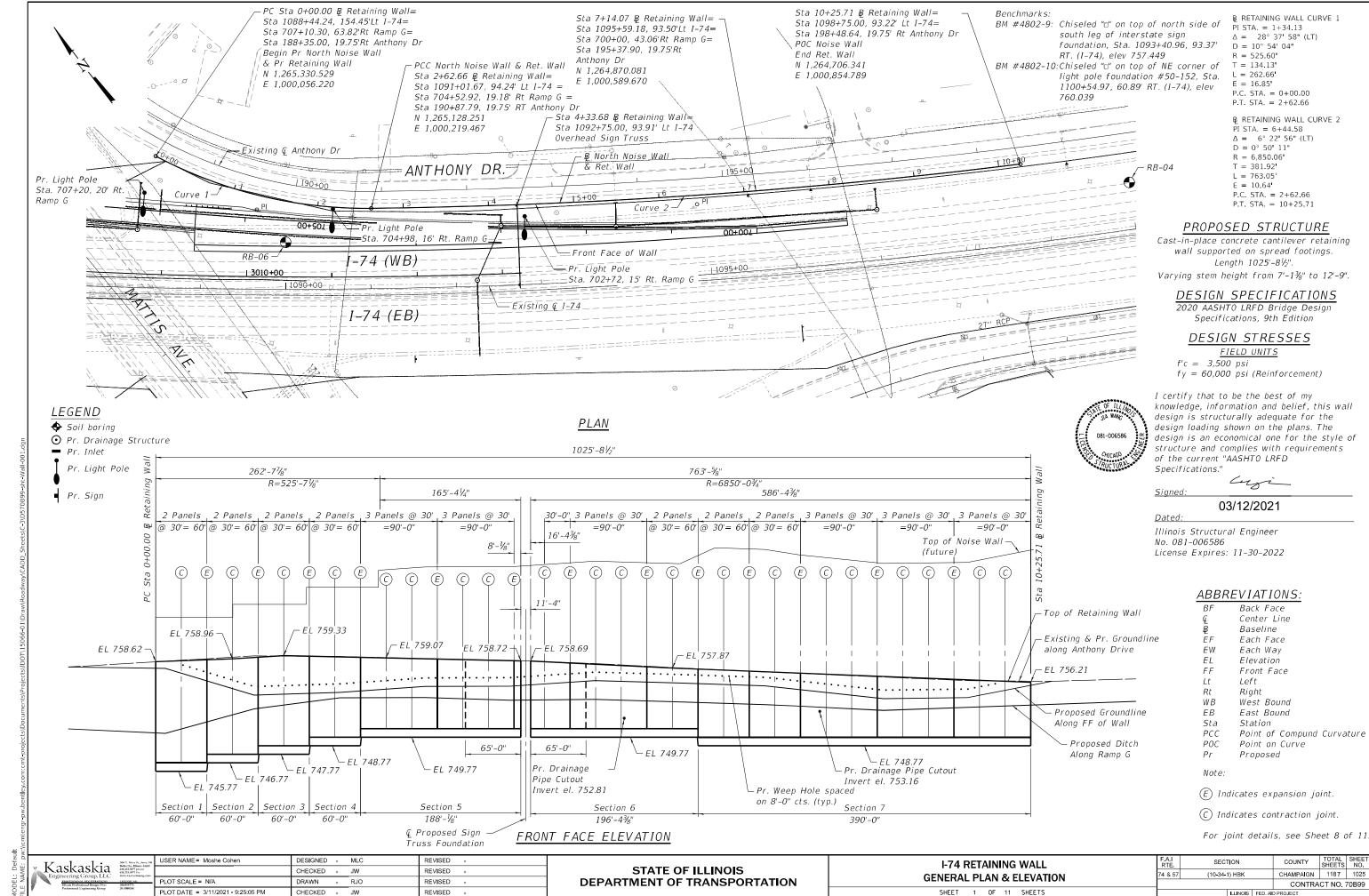
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC.

JSER NAME = DESIGNED - FAM REVISED -CHECKED - GBR REVISED -DRAWN - FAM REVISED -CHECKED - GBR REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION **SOIL BORING LOGS** COUNTY CHAMPAIGN 1187 1024 (10-34-1) HBK **STRUCTURE NO. 010-8174** CONTRACT NO. 70B99 SHEET 16 OF 16 SHEETS



GENERAL NOTES

CAST-IN-PLACE CONCRETE

All exposed Concrete edges shall have a ¾"x45° Chamfer, Except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.

REINFORCEMENT BARS

- 1. Reinforcement bars designated "(E)" shall be epoxy coated.
- 2. Reinforcement Bar Splices shall be in accordance with the following table, unless otherwise shown on the Drawing.

CLASS "B" SPLICE (GRADE 60 BARS)

| SIZE | <u>f</u> 'c=3,500 PS |
|------|----------------------|
| #4 | 2'-11" |
| #7 | 4'-5" |

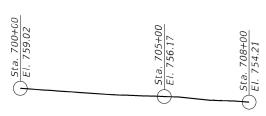
- 3. Reinforcement bar bending dimensions are out to out.
- 4. Bars noted thus, 3x2- #5 indicates 3 lines of bars with 2 lengths of bars per line.

CONSTRUCTION

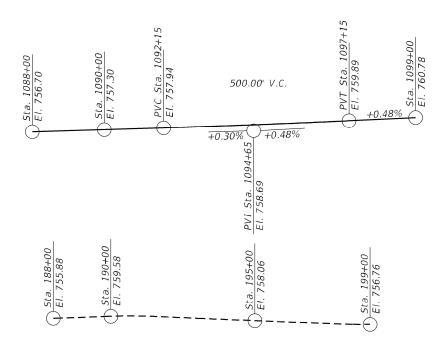
- 1. The Contractor shall not scale any dimension from contract plans for construction purposes. Scales shown are for reference only.
- 2. No Construction joints, except those shown on the plans, will be allowed unless approved by the Engineer. All construction joints shall be bonded.
- 3. Temporary soil retention systems, sheeting, bracing or cofferdams shall be constructed at locations shown on the plans and/or as required for the excavation to protect the adjacent from settling or falling into the excavated areas.
- Protective coat shall be applied to the top and traffic face of all barriers of the Wall.
- When excavating for the wall's footing, the Contractor shall use a method that will result in a minimal disturbance to underlying soil.
- 6. Geocomposite wall drain is to be continuous over the entire length of the back face of the retaining wall.
- 7. The Contractor shall be responsible for the protection of all underground or surface utilities even though they may not be shown in the plans. Any utility that is damaged during construction shall be repaired or replaced to the satisfaction of the Engineer. This work will be at the Contractor's expense.
- 8. The Contractor shall be aware of the presence of uverhead utility lines and shall coordinate work with the utilities in advance of working in the vicinity of their facilities, and allow sufficient time for them to perform adjustments to their facilities in accordance with the Contractor's schedule. Coordination efforts shall be included in the cost of the contract bid price.
- 9. The Contractor must call the IDOT electrical maintenance Contractor to locate IDOT facility cables.
- 10. The 4" perforated pipe underdrain shall be situated within a block of drainage aggregate, which shall be wrapped completely in a geotechnical filter fabric. A 1'-6" lap will be used where fabric must be lapped. Cost of geotechnical fabric and drainage aggregate shall be included with the Pipe Underdrain for Structures, 4".

CONSTRUCTION (CONTINUED)

- 11. Station and offsets are measured from \mathbb{Q} I-74 to the front face of the retaining wall.
- 12. For proposed sewer location in the vicinity of the retaining wall, see civil plans.
- 13. The soil boring logs represent point information. Presentation of this information in no way implies that subsurface conditions are the same at locations other than the exact location of the boring.
- 14. No concrete cutting will be permitted until the cutting limits have been outlined by the Contractor and approved by the Engineer.
- 15. It shall be the Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.
- 16. Anchor bolts shall meet the requirements of ASTM F1554, Grade 105, shall be galvanized, and shall be covered with plastic caps after installation. Cost of plastic caps and all other appurtenances shall be considered completely covered by Anchor Bolts, 1 1/4".
- 17. Plan dimensions and details are based on surveyed dimensions and are subject to possible variations. The Contactor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.



RAMP G PROFILE GRADE LINE

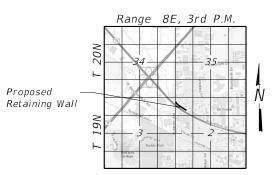


DESIGN STRESSES

Anchor Bolt Assembly
Bolt: ASTM F1554, Grade 105
Heavy Hex Nuts: ASTM A563, DH3
Hardened Washers: ASTM F436
Assembly pieces shall be hot-dip galvanized

INDEX OF SHEETS

- 1. General Plan & Elevation
- General Data
- Temporary Soil Retention System General
 Plan & Elevation
- 4. Detail Plan and Elevation 1
- 5. Detail Plan and Elevation 2
- 6. Detail Plan and Elevation 37. Detail Plan and Elevation 4
- 8. Wall Section & Details
- 9. Details & Bill of Materials
- 10. Wall Sections
- o. Wall Sections
- 11. Soil Boring Logs



LOCATION SKETCH

TOTAL BILL OF MATERIAL

| ITEM | UNIT | TOTAL |
|------------------------------------|---------|---------|
| Granular Backfill for Structures | Cu. Yd. | 811 |
| Structure Excavation | Cu. Yd. | 5,574 |
| Concrete Structures | Cu. Yd. | 1,017.7 |
| Protective Coat | Sq. Yd. | 933 |
| Reinforcement Bars, Epoxy Coated | Pound | 133,070 |
| Geocomposite Wall Drain | Sq. Yd. | 1,048 |
| Anchor bolts, 1 1/4" | Each | 520 |
| Temporary Soil Retention System | Sq. Ft. | 10,800 |
| Pipe Underdrain for Structures, 4" | Foot | 1,036 |
| ` | | |

ANTHONY DRIVE EXISTING & PROPOSED PROFILE GRADE LINE

| 77 1 1 . | 208 E. Main Sc., Suite 100 Belleville, Ellinois 6222) | USER NAME= Moshe Cohen | DESIGNED - | MLC | REVISED | - |
|---|---|-------------------------------------|------------|-----|---------|---|
| Engineering Group, LLC PROTISSIONAL BEGISTRATIONS LINE Blitols Professional Design Num 1840 | 618.233.5877 phone 618.233.9977 fex www.lazikasidaeno.com | | CHECKED - | JW | REVISED | - |
| | LICENSE NO. 184,004773 | PLOT SCALE = N/A | DRAWN - | RJ0 | REVISED | - |
| | 20-5080516 | PLOT DATE = 3/18/2021 - 12:14:58 PM | CHECKED - | JW | REVISED | - |

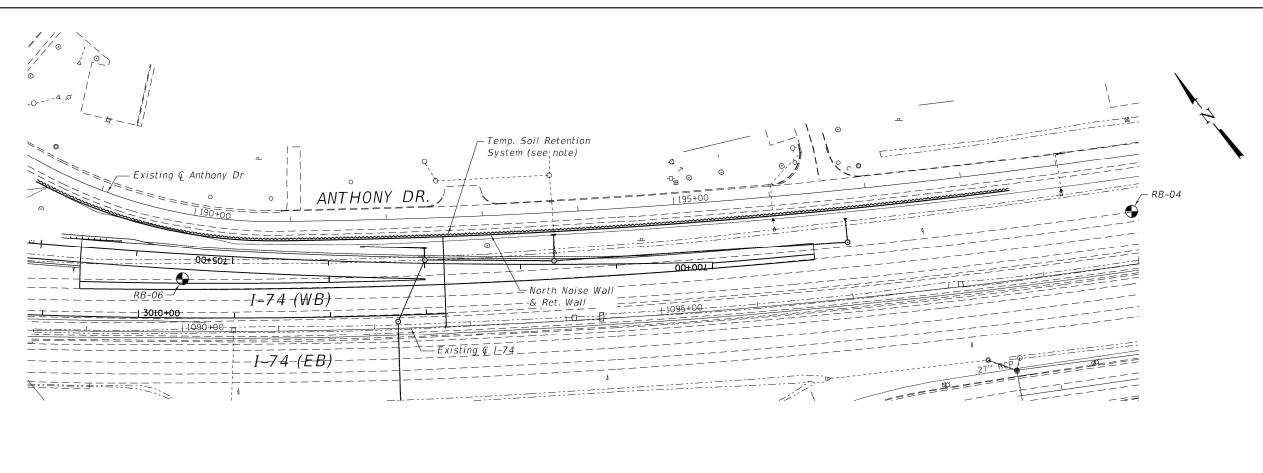
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-74 RETAINING WALL
GENERAL DATA
SHEET 2 OF 11 SHEETS

 FAI RTE.
 SECTION
 COUNTY
 TOTAL SHEETS
 SHEET NO.

 74 & 57
 (10-34-1) HBK
 CHAMPAIGN
 1187
 1026

 CONTRACT NO.
 70B99

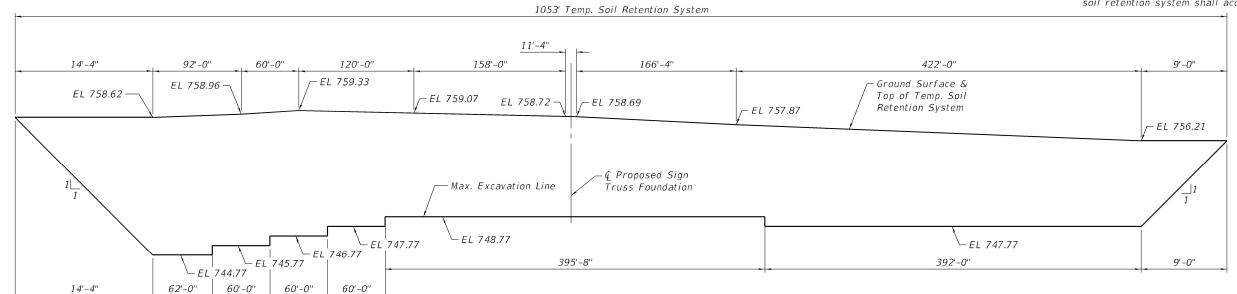


PLAN

Note:

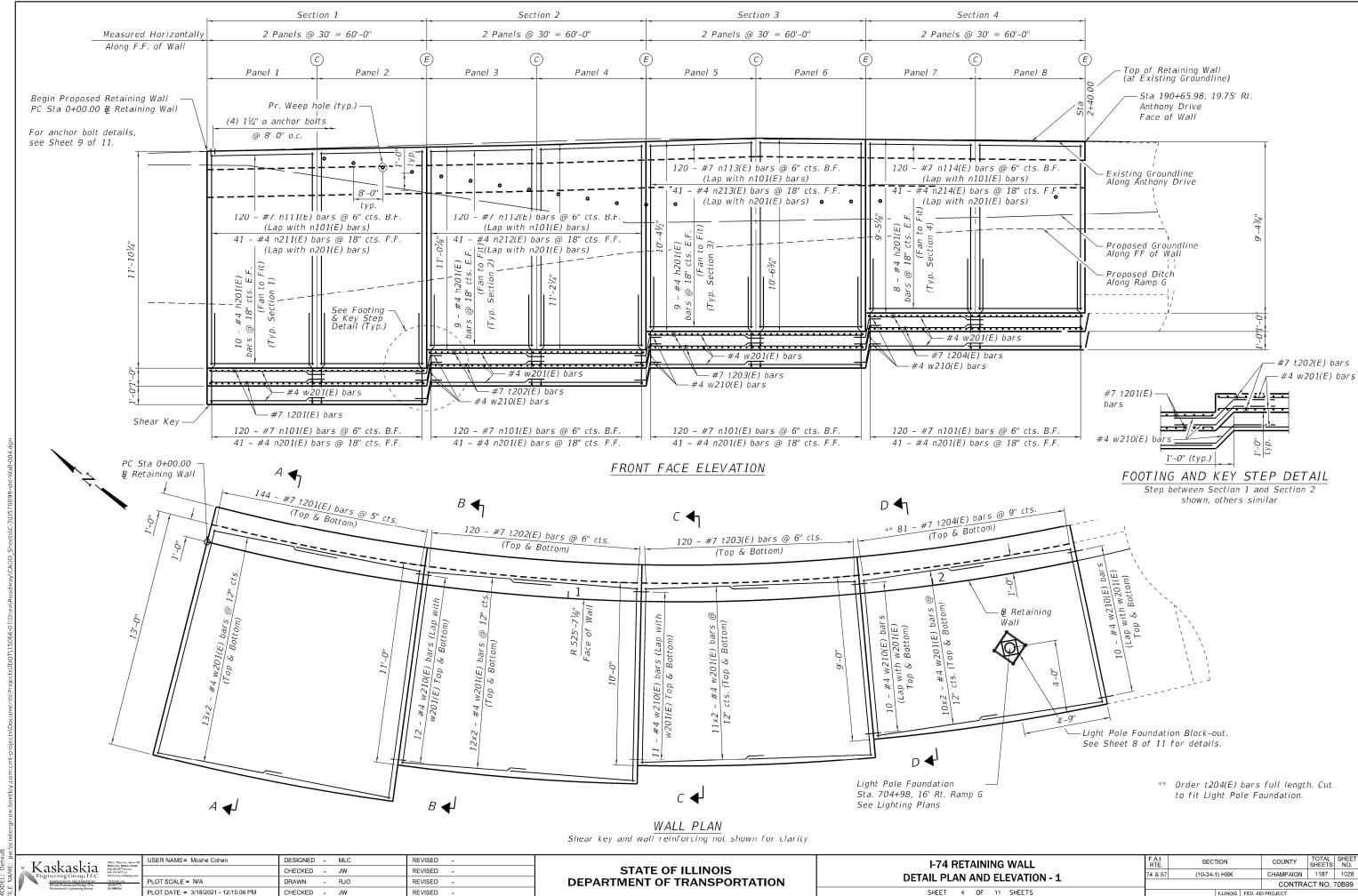
1. A cantilevered sheet piling design may not be feasible and other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations prepared and sealed by an Illinois licensed Structural Engineer for review and acceptance by the Engineer.

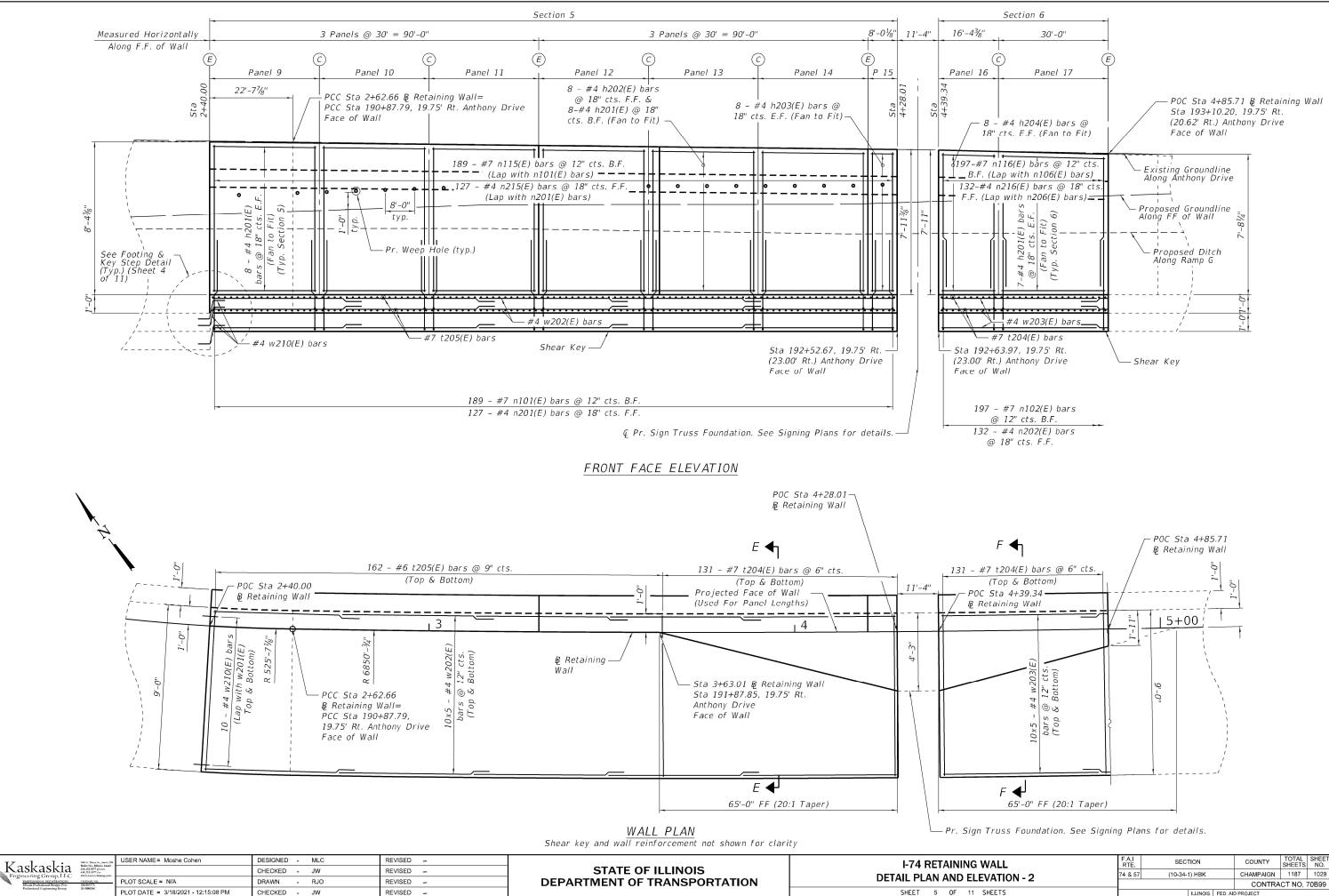
2. The Contrator's attention is drawn to the presence of existing utilities and drainage structures in the vicinity of the proposed retaining wall. The details of the temporary soil retention system shall account for these.

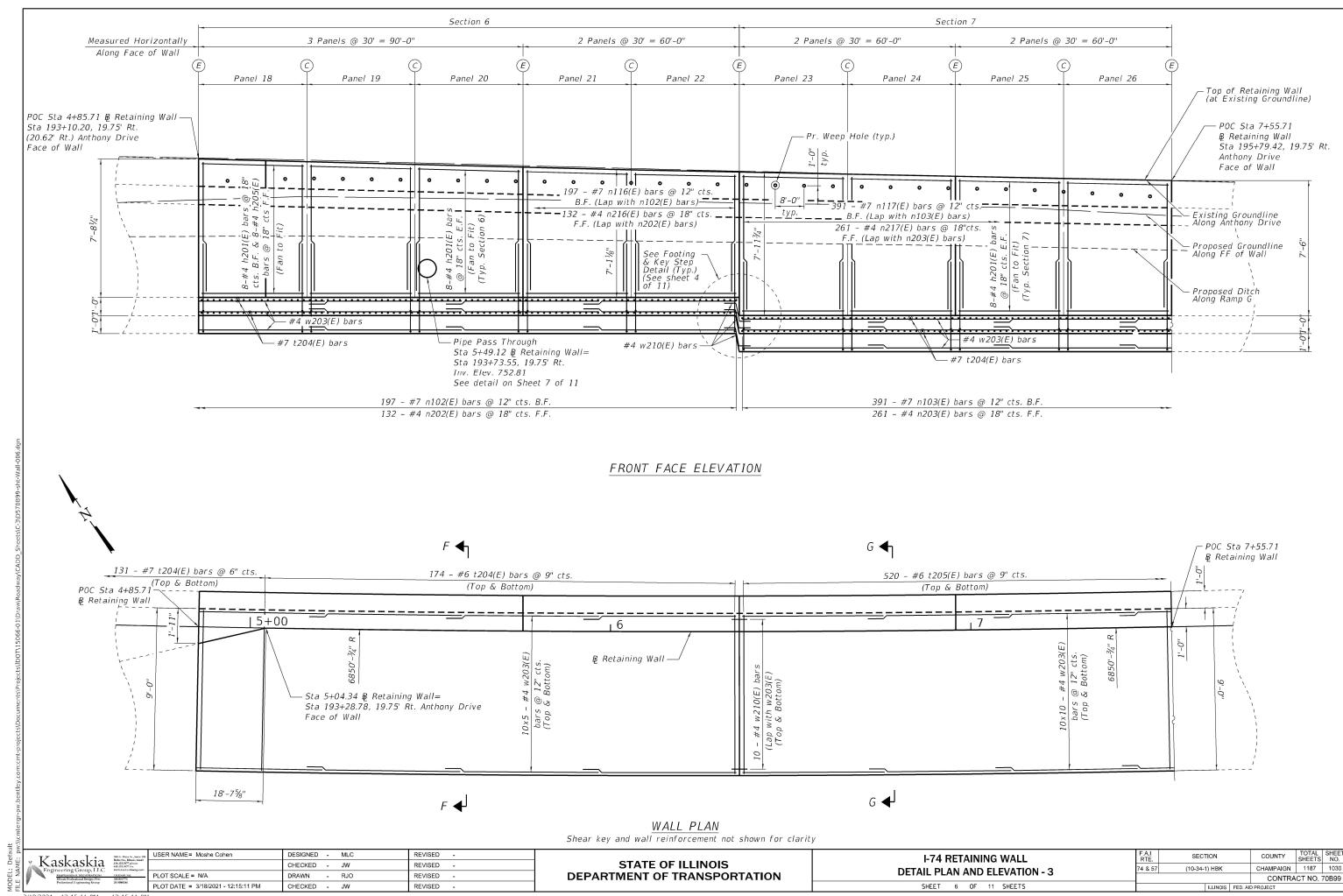


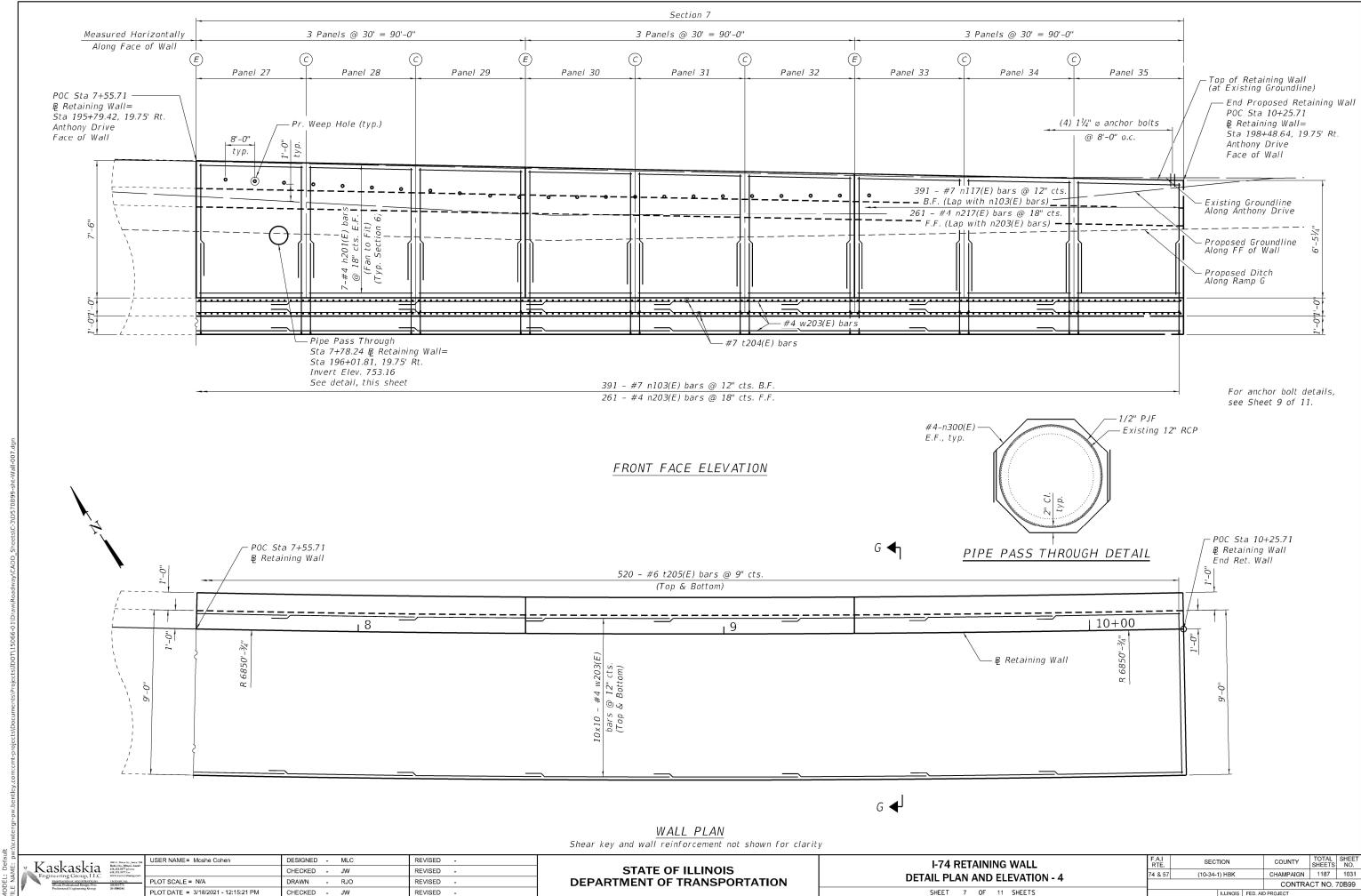
UNFOLDED ELEVATION
(Looking North)

I-74 RETAINING WALL TEMPORARY SOIL RETENTION SYSTEM USER NAME = Moshe Cohen DESIGNED - MLC REVISED -SECTION Kaskaskia STATE OF ILLINOIS CHECKED - JW REVISED CHAMPAIGN 1187 1027 74 & 57 (10-34-1) HBK GENERAL PLAN & ELEVATION
SHEET 3 OF 11 SHEETS **DEPARTMENT OF TRANSPORTATION** DRAWN REVISED CONTRACT NO. 70B99 PLOT DATE = 3/18/2021 - 12:15:02 PM CHECKED - JW REVISED

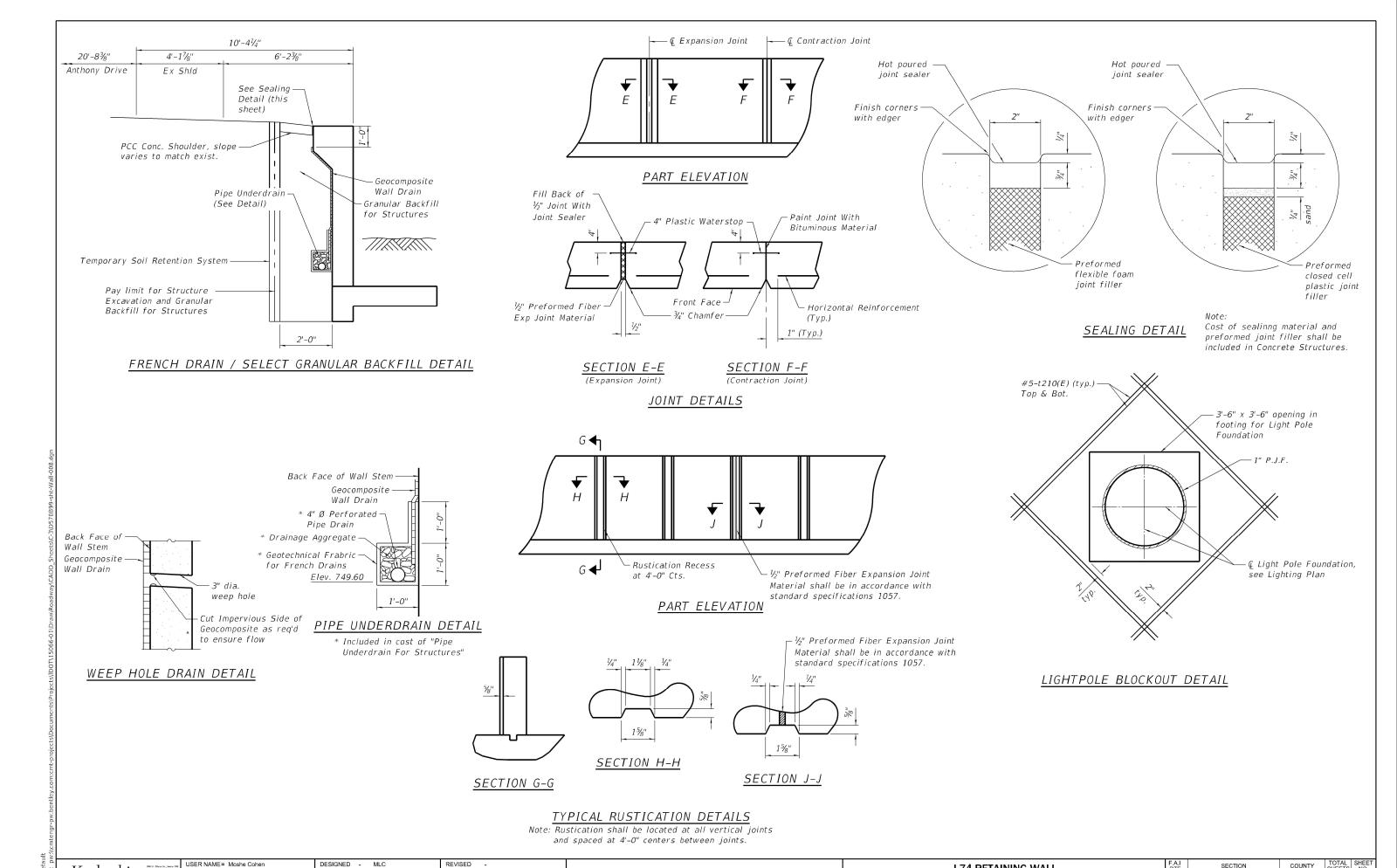








3/18/2021 - 12:15:21 PM 12:15:22 PM



3/18/2021 - 12:15:25 PM 12:15:25 PM

Kaskaskia

CHECKED - JW

CHECKED - JW

DRAWN

PLOT DATE = 3/18/2021 - 12:15:25 PM

REVISED

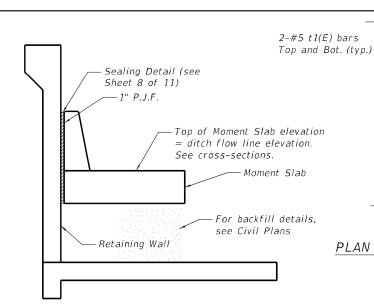
REVISED

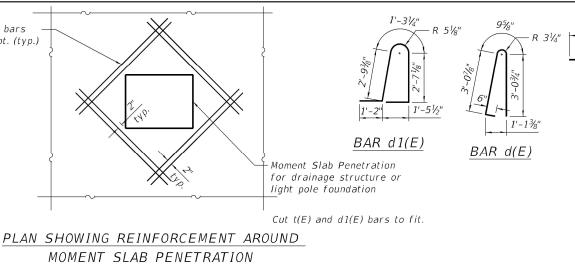
REVISED

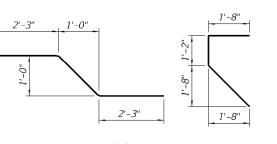
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

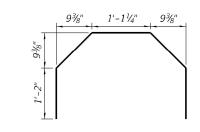
I-74 RETAINING WALL **WALL SECTION & DETAILS** SHEET 8 OF 11 SHEETS

SECTION COUNTY 74 & 57 (10-34-1) HBK CHAMPAIGN 1187 1032 CONTRACT NO. 70B99









BAR n300(E)

7'-6"

9'-4"

39'-8"

34'-8"

29'-8" 29'-8"

7'-8"

16'-0"

29'-8"

7'-6"

8'-0"

8'-9"

5'-3"

11'-6"

11'-1"

10'-1"

7'-8"

6'-8"

6'-1"

4'-6"

5'-9"

9'-4"

7'-8"

6'-1"

5'-8"

5'-2"

5'-0"

12'-8"

9'-8"

8'-8"

6'-6"

39'-8"

39'-7"

5'-11"

Cu. Yd.

Cu. Yd. 1,017.7

Pound 133,070

5,574

#4 11'-1"

#4 10'-1"

#4 6'-8"

#7 10'-8"

#6 8'-8"

#4 34'-8"

#4 41'-4"

#7

#7

#7

#7

#7

#7

#7

#4

#4

#4

#4

#4

#4

#4

#5

#5

#7

#7

#7

#5

#4

#4

#4

#4

#4

BAR w210(E) BAR n110(E) h202(E) 26'-97/8" 2'-10" 11'-23/8" 18'-55/8" h205(E)

n101(E) | 6'-8"

n102(E) 7'-2"

n103(E) 7'-11"

BARS h202(E) & h205(E)

BILL OF MATERIAL Size Length

| a(E) | 594 | #3 |
|---------|-----|----|
| d1(E) | 533 | #5 |
| | | |
| e(E) | 99 | #4 |
| e1(E) | 11 | #4 |
| | | |
| h201(E) | 538 | #4 |
| h202(E) | 8 | #4 |
| h203(E) | 16 | #4 |
| h204(E) | 16 | #4 |
| h205(E) | 8 | #4 |
| | | |
| n101(E) | 689 | #7 |
| n102(F) | 197 | #7 |

n103(E) 391

n110(E) 1257

n115(E) 189

1116(E) 197

n212(E) 41

n213(E) 41

n216(E) 132

t202(E) 240

205(E) 1364

W1(E) 12

w203(E) 300

w210(E) 106

Epoxy Coated

Structure Excavation

Concrete Structures

Reinforcement Bars,

n112(E)

n113(F)

1114(E)

117(E)

1201(E)

n203(E)

n211(E)

1214(E)

1215(E)

n217(E)

n300(E)

t(E)

t201(E)

t203(E)

t210(E)

w201(E) w202(E) 100

t204(E)

120

120

120

394

132

261

41

261

800

32

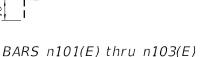
288

240

162

16

108



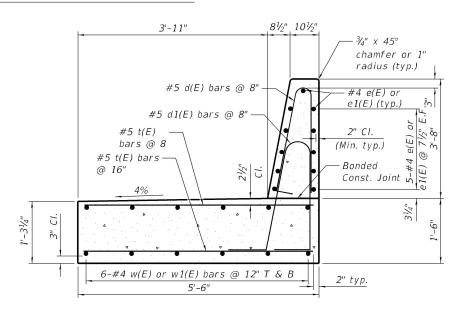


BARS n201(E) thru n203(E)

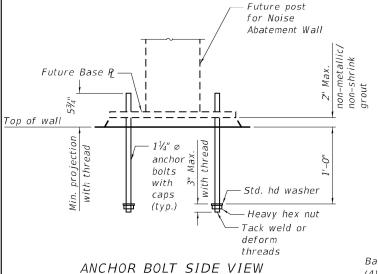
TYPICAL WALL SECTION IN CLEAR ZONE Station 702+10 to 706+05 ₺ Ramp G = Station 1+10 to 5+05 & Retaining Wall

Moment Slab Notes:

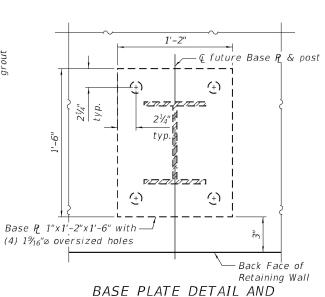
- 1. I" deep contraction joints shall be constructed in both the reinforced concrete barrier wall and base. Contraction joints shall also be constructed at both sides of all drainage structures. Maximum contraction joint spacing shall be 30'-0".
- The forming of contraction joints shall be done with an approved finishing tool or by sawing subject to the satisfactory control of cracking.
- 3. Expansion joints shall be constructed in barrier wall at a maximum joint spacing of 90'-0" and a minimum joint spacing of 40'-0". See Section E-E Expansion Joint Detail on Sheet 8 of 11.



TYPICAL SECTION THRU MOMENT SLAB



Grout shall conform to the requirements of Section 1024.02 of the Standard Specifications. Cost shall be included with Anchor Bolt, 1 1/4".



ANCHOR BOLT LAYOUT

non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25, Use T.

Non-staining gray one component

Preformed Joint Filler

TYPICAL SECTION THRU JOINT

The forming of contraction joints shall be done with an approved finishing tool or by sawing subject to the satisfactory control of cracking.

Kaskaskia

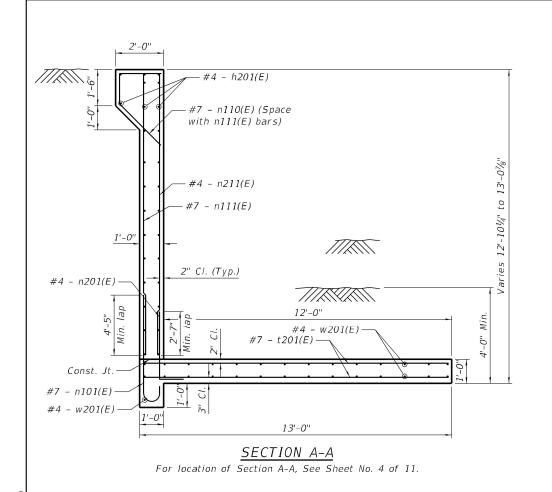
JSER NAME= Moshe Cohen REVISED -CHECKED - JW REVISED RAWN REVISED PLOT DATE = 3/18/2021 - 12:15:29 PM CHECKED - JW REVISED

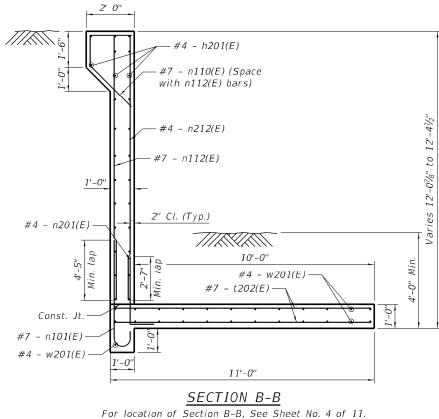
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

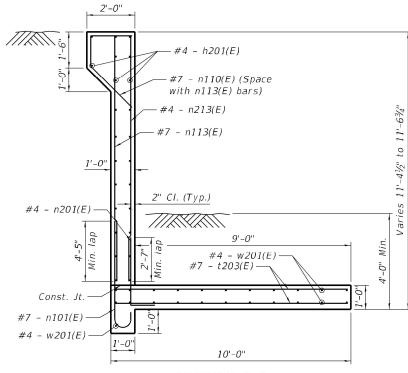
I-74 RETAINING WALL **DETAILS & BILL OF MATERIALS** SHEET 9 OF 11 SHEETS

| F.A.I RTE. | SECT | ΓΙΟΝ | | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------|----------|----------|----------|-----------|-----------------|--------------|
| 74 & 57 | (10-34-1 | I) HBK | | CHAMPAIGN | 1187 | 1033 |
| | | | | CONTRA | CT NO. | 70B99 |
| | | ILLINOIS | FED. AII | PROJECT | | |

3/18/2021 - 12:15:29 PM 12:15:29 PM







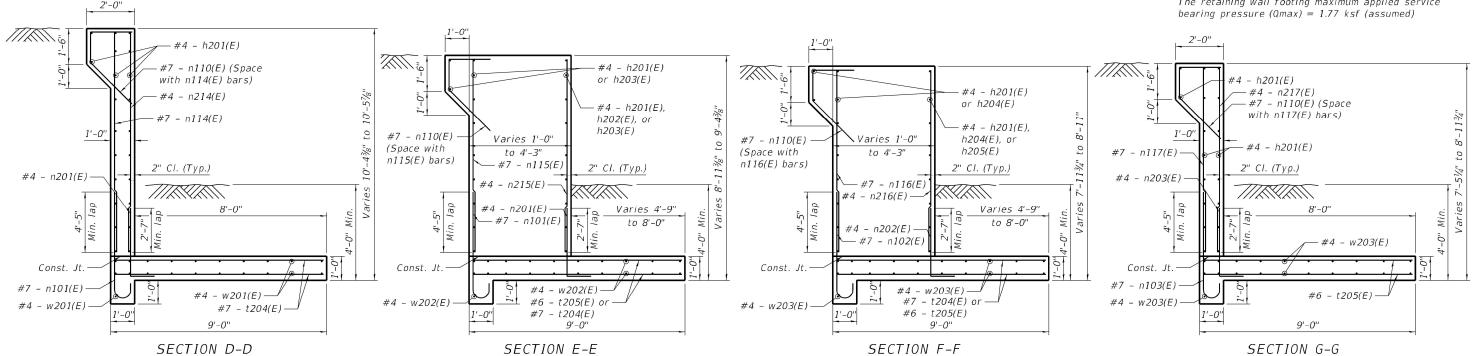
SECTION C-C

For location of Section C-C, See Sheet No. 4 of 11.

For Elevation showing reinforcement, See Sheet Nos. 4 thru 7 of 11.

The retaining wall footing maximum applied service

For location of Section G-G, See Sheet No. 6 of 11.



USER NAME = Moshe Cohen DESIGNED - MLC REVISED Kaskaskia CHECKED - JW REVISED RAWN REVISED PLOT DATE = 3/18/2021 - 12:15:31 PM CHECKED - JW REVISED

For location of Section D-D, See Sheet No. 4 of 11.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

For location of Section F-F, See Sheet Nos. 5 & 6 of 11.

For location of Section E-E, See Sheet No. 5 of 11.

I-74 RETAINING WALL WALL SECTIONS SHEET 10 OF 11 SHEETS

SECTION COUNTY 74 & 57 (10-34-1) HBK CHAMPAIGN 1187 1034 CONTRACT NO. 70B99

SOIL BORING LOG

Page <u>1</u> of <u>1</u>

3705 Progress Blvd Peru, II 61354 815 780-8486

| | | 80-8486 | | | | | | | |
|--|----------------------|-------------------------|------------------|------------------|-------------|------------------|--|-----------|---------|
| Solutions Ye | ou Can Build On | | | | | | | Date | 6/11/15 |
| ROUTE | I-57/74 | DES | CRII | PTION | | | Westbound on I-57/74 | LOGGED BY | TLM |
| SECTION _ | 10(5-1 RS-1,14 | -1,6)R | _ L | OCAT | | | , TWP. , RNG. , de 40.13917, Longitude -88.273639 | | |
| COUNTY _ | Champaign | DRILLING | MET | THOD | | | SSA HAMMER TYP | E | |
| Station | DD 04 | | D E P T | B L O W | U C S | M O I S | Surface Water Elev ft Stream Bed Elev ft | | |
| Station | RB-04 1100+00 | | Ĥ | s | Qu | Ť | Groundwater Elev.: First Encounter ft | | |
| Offset | 25.0 ft Lt. | 20 4 | (ft) | (/6") | (tsf) | (%) | Upon Completion ft | | |
| 12" Aggregat | face Elev. 760.2 | 20 π | (11) | (10) | (131) | (70) | After Hrs ft | | |
| | | <u>759.20</u> 758.70 | | | | | | | |
| Black/Brown Brown Silty C | Clay, Stiff, Moist | 758.20 | - | | | 19 | | | |
| | Clay with Silt Seams | | _ | | | 19 | | | |
| | | 756.20 | \dashv | | | | | | |
| Dark Gray Si Sand | Ity Clay Till, Trace | | -5 | | | | | | |
| | | 754.20 | _ | | | | | | |
| Brown Silty C | Clay | | _ | | | | | | |
| | | 752.70 | | | | | | | |
| End of Boring | 9 | - | | | | | | | |
| | | | - | | | | | | |
| 27/15 | | _ | | | | | | | |
| 10% | | - | -10 | | | | | | |
| 97.60 | | _ | | | | | | | |
| <u> </u> - | | | - | | | | | | |
| .GPJ | | - | | | | | | | |
| NOIS | | - | | | | | | | |
| S E E | | | \dashv | | | | | | |
| DWAY | | _ | | | | | | | |
| - ROA | | - | -15 | | | | | | |
| ANGE | | _ | | | | | | | |
| IRCH | | | \dashv | | | | | | |
| IL BORING 157-74 INTERCHANGE - ROADWAY VERSION 1 GPJ IL_DOT GDT 10/27/15 | | _ | | | | | | | |
| 1-57-7 | | - | \dashv | | | | | | |
| RING | | | \dashv | | | | | | |
| B0 | | _ | | | | | | | |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

SOIL BORING LOG

Page $\underline{1}$ of $\underline{1}$

Cleary

Ingineering

3705 Progress Blvd Peru, II 61354 815 780-8486

Date 6/11/15 Solutions You Can Build On Westbound on I-57/74 I-57/74 LOGGED BY ___TLM DESCRIPTION __ LOCATION _, SEC. , TWP. , RNG. ,
Latitude 40.1406, Longitude -88.2766 10(5-1 RS-1,14-1,6)R SECTION __ SSA COUNTY ___ Champaign ___ DRILLING METHOD HAMMER TYPE STRUCT. NO. Surface Water Elev. Е C S Stream Bed Elev. Station 0 TW BORING NO. Groundwater Elev.: H S Qu Station _ 1090+00 First Encounter Offset **Upon Completion** Ground Surface Elev. 756.50 ft (ft) (/6") (tsf) (%) After 12" Aggregate SHLD 755.50 Black Silty Clay, Moist, Stiff Brown Silty Clay Loam, Stiff, Moist 24 754.00 Brown Silty Clay Loam Till, Moist, Brown/Gray Clay Till, Moist, Stiff to Very Stiff 750.50 18 Brown Loamy Fine Sand 749.50 End of Boring

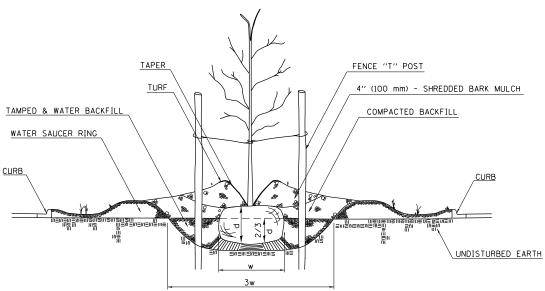
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

FOR INFORMATION ONLY

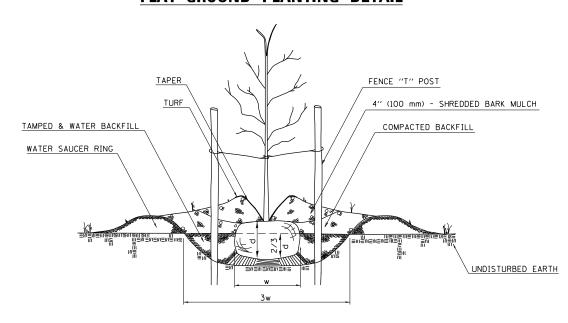
Kaskaskia
Engineering Group, LLC
Proposition steering from photogroup to the control of the cont

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARKWAY PLANTING DETAIL



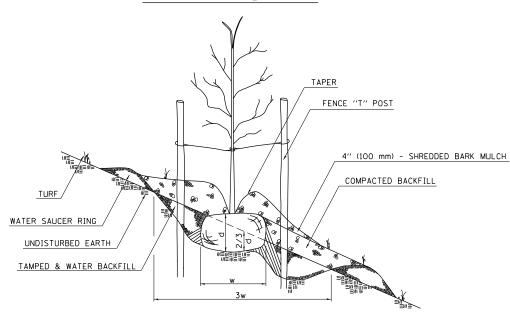
FLAT GROUND PLANTING DETAIL



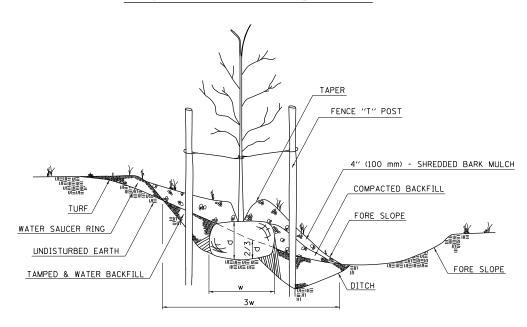
HOLE DEPTH SCHEDULE

| Tree Size (Caliper) | | Shrub Tree Height | | Evergreen Height | | Min. Diameter Ball (w) | | Min. Depth Ball (d) | | Hole Depth (2/3d) | | Hole Width (3w) | |
|---------------------|--------|-------------------|-------|------------------|--------|------------------------|-------|---------------------|----------|-------------------|-------|-----------------|--------|
| 6 mm | 1/4 in | 600 mm | 2 ft | 500 mm | 1.5 ft | 255 mm | 10 in | 190 mm | 7 1/2 in | 130 mm | 5 in | 760 mm | 30 in |
| 1 3 | 1/2 | 900 | 3 | 600 | 2 | 300 | 12 | 230 | 9 | 150 | 6 | 900 | 36 |
| 19 | 3/4 | 1250 | 4 | 900 | 3 | 355 | 14 | 270 | 10 1/2 | 180 | 7 | 1070 | 42 |
| 25 | 1 | 1500 | 5 | 1250 | 4 | 400 | 16 | 300 | 12 | 205 | 8 | 1220 | 48 |
| 30 | 1 1/4 | 1800 | 6 | 1375 | 4 1/2 | 460 | 18 | 345 | 13 1/2 | 230 | 9 | 1375 | 54 |
| 40 | 1 1/2 | 2000 | 7 | 1500 | 5 | 500 | 20 | 345 | 13 1/2 | 230 | 9 | 1525 | 60 |
| 45 | 1 3/4 | 2500 | 8 | 1800 | 6 | 560 | 22 | 370 | 14 1/2 | 255 | 10 | 1680 | 66 |
| 50 | 2 | 2700 | 9 | 2000 | 7 | 600 | 24 | 400 | 16 | 280 | 11 | 1830 | 72 |
| 60 | 2 1/2 | 3000 | 10 | 2500 | 8 | 700 | 28 | 470 | 18 1/2 | 300 | 12 | 2140 | 84 |
| 80 | 3 | 3500 | 11 | 2700 | 9 | 800 | 32 | 500 | 20 | 330 | 13 | 2440 | 96 |
| 90 | 3 1/2 | 3700 mm | 12 ft | 3700 | 12 | 960 | 38 | 585 | 23 | 380 | 15 | 2900 | 114 |
| 100 | 4 | | | 4300 | 14 | 1070 | 42 | 635 | 25 | 430 | 1 7 | 3200 | 126 |
| 110 | 4 1/2 | | | 4900 | 16 | 1220 | 48 | 740 | 29 | 485 | 19 | 3660 | 144 |
| 1 30 | 5 | | | 5400 mm | 18 f† | 1375 | 54 | 815 | 32 | 535 | 21 | 4115 | 162 |
| 140 | 5 1/2 | | | | | 1450 | 57 | 865 | 34 | 585 | 23 | 4315 | 171 |
| 150 | 6 | | | | | 1525 | 60 | 915 | 36 | 610 | 24 | 4575 | 180 |
| 180 | 7 | | | | | 1780 | 70 | 1070 | 42 | 700 | 28 | 5330 | 210 |
| 205 mm | 8 in | | | | | 2030 mm | 80 in | 1220 mm | 48 in | 815 mm | 32 in | 6070 mm | 240 in |

HILL PLANTING DEPTH



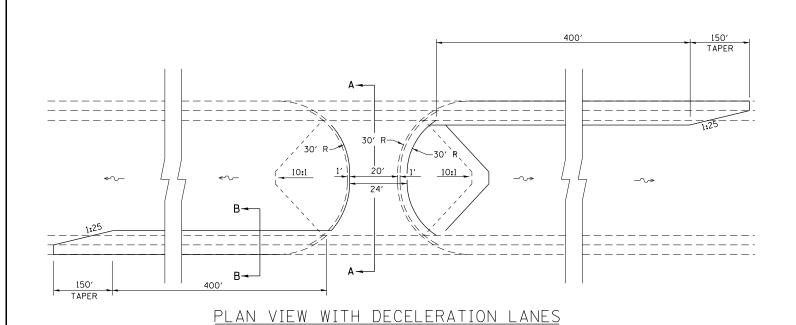
DITCH AREA PLANTING DETAIL



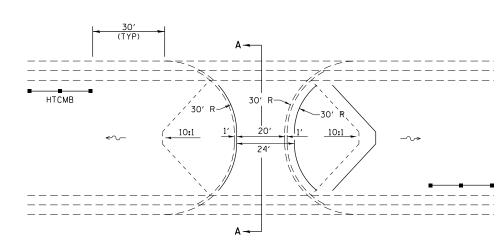
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 253AAAAA

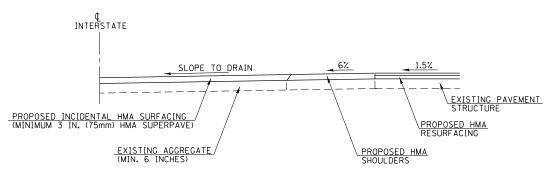
| FILE NAME = US | | USER NAME = Matt Overbey | DESIGNED - | REVISED - 12/06 | | PLANTING DETAILS | | | | | F.A.I. | SECTION | COUNTY | TOTAL | SHEE | |
|----------------|--|-------------------------------------|-------------------|-----------------|------------------------------|--------------------|-------|----|--------|------|---------|----------|-----------------|-------------|------|------|
| | \D570B99-sht-D5-District Standards.dgn | | DRAWN - | REVISED - | STATE OF ILLINOIS | | | | | | | 57 | (10-34-1)HBK | CHAMPAIGN 1 | 1187 | 1036 |
| | | PLOT SCALE = 40.0000 ' / 10. | CHECKED - | REVISED - | DEPARTMENT OF TRANSPORTATION | DISTRICT 5 DETAILS | | | | | | | CONTRACT | NO. 7 | 0B99 | |
| | Section 200 | PLOT DATE = 3/18/2021 - 12:47:47 PM | DATE - MARCH 2021 | REVISED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO STA. | — | TILL INDIS FED. | AID PROJECT | | |



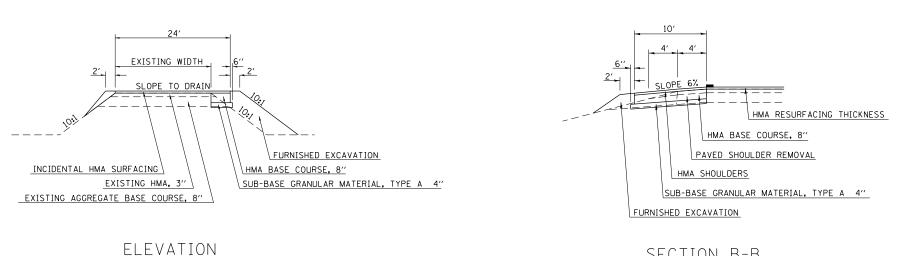
(USE AT "SPOT" LOCATIONS ONLY)



TYPICAL PLAN VIEW (STANDARD APPLICATION)







SECTION B-B

GENERAL NOTES

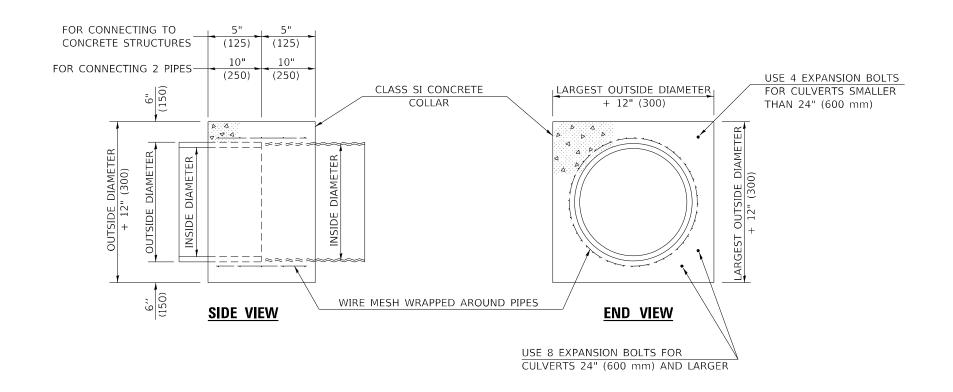
OMIT SHOULDER RUMBLE STRIPS THROUGHOUT MEDIAN CROSSOVER AND DECELERATION LANES.

REMOVAL OF EXISTING AGGREGATE SHOULDERS IS INCIDENTAL TO THE COST OF PROPOSED 8" BITUMINOUS CONCRETE BASE COURSE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 35501316

| FILE NAME = | USER NAME = Matt Overbey | DESIGNED - | REVISED - 12/06 TJB | | MEDIAN CROSSOVER | | | F.A.I. | SECTION | COUNTY | TOTAL SHEET | | | |
|--|-------------------------------------|-------------------|---------------------|------------------------------|--------------------|-------|----|--------|---------|---------|-------------|-----------------|-----------|-----------|
| \D570B99-sht-D5-District Standards.dgn | | DRAWN - | REVISED - | STATE OF ILLINOIS | | | | | | | 57 | (10-34-1)HBK | CHAMPAIGN | 1187 1037 |
| | PLOT SCALE = 40.0000 '/ in. | CHECKED - | REVISED - | DEPARTMENT OF TRANSPORTATION | DISTRICT 5 DETAILS | | | | | | | T NO. 70B99 | | |
| Section 300 | PLOT DATE = 3/18/2021 - 12:47:48 PM | DATE - MARCH 2021 | REVISED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO STA. | | ILLINOIS FED. A | | |



| QUANTITIES FOR CONCRETE PIPES | | | | | | | | | |
|-------------------------------|--------------------|--|--|--|--|--|--|--|--|
| INSIDE DIAMETER | ESTIMATED | | | | | | | | |
| OF PIPE | CLASS SI CONCRETE | | | | | | | | |
| | REQUIRED | | | | | | | | |
| | 20" (500 mm) WIDTH | | | | | | | | |
| INCH (mm) | CU.YD. (m 3) | | | | | | | | |
| 4" (100) | 0.14 (0.11) | | | | | | | | |
| 6" (150) | 0.16 (0.12) | | | | | | | | |
| 8" (200) | 0.19 (0.14) | | | | | | | | |
| 10" (250) | 0.22 (0.17) | | | | | | | | |
| 12" (300) | 0.25 (0.19) | | | | | | | | |
| 15" (375) | 0.30 (0.23) | | | | | | | | |
| 18" (450) | 0.35 (0.27) | | | | | | | | |
| 24" (600) | 0.45 (0.35) | | | | | | | | |
| 30" (750) | 0.57 (0.43) | | | | | | | | |
| 36" (900) | 0.69 (0.53) | | | | | | | | |
| 42" (1050) | 0.83 (0.63) | | | | | | | | |
| 48" (1200) | 0.97 (0.74) | | | | | | | | |
| 54" (1350) | 1.12 (0.86) | | | | | | | | |
| 60" (1500) | 1.28 (0.98) | | | | | | | | |

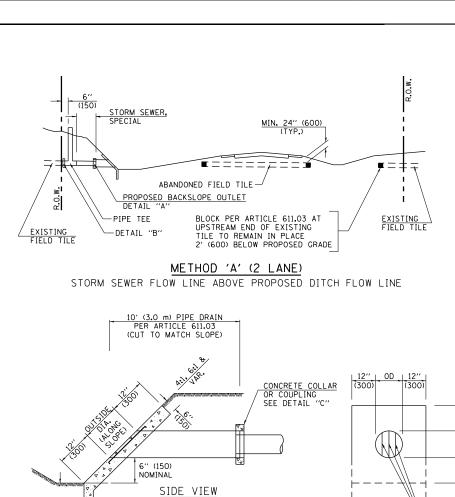
| QUANTITIES FOR METAL PIPES | | | | | | | | | |
|----------------------------|--------------------------|--|--|--|--|--|--|--|--|
| INSIDE DIAMETER | ESTIMATED | | | | | | | | |
| OF PIPE | CLASS SI CONCRETE | | | | | | | | |
| | REQUIRED | | | | | | | | |
| | 20" (500 mm) WIDTH | | | | | | | | |
| INCH (mm) | CU.YD. (m ³) | | | | | | | | |
| 4" (100) | 0.12 (0.09) | | | | | | | | |
| 6" (150) | 0.14 (0.11) | | | | | | | | |
| 8" (200) | 0.16 (0.12) | | | | | | | | |
| 10" (250) | 0.19 (0.14) | | | | | | | | |
| 12" (300) | 0.21 (0.16) | | | | | | | | |
| 15" (375) | 0.25 (0.19) | | | | | | | | |
| 18" (450) | 0.29 (0.22) | | | | | | | | |
| 24" (600) | 0.38 (0.29) | | | | | | | | |
| 30" (750) | 0.47 (0.36) | | | | | | | | |
| 36" (900) | 0.59 (0.45) | | | | | | | | |
| 42" (1050) | 0.69 (0.53) | | | | | | | | |
| 48" (1200) | 0.81 (0.62) | | | | | | | | |
| 54" (1350) | 0.93 (0.71) | | | | | | | | |
| 60" (1500) | 1.05 (0.81) | | | | | | | | |

GENERAL NOTES

- 1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
- 2. WHEN CONCRETE COLLARS ARE USED TO CONNECT PIPES OF DIFFERENT OUTSIDE DIAMETERS, THE CONCRETE COLLAR SHALL BE FORMED USING THE LARGEST OUTSIDE DIAMETER (SEE END VIEW).
- 3. THE WIRE MESH SHALL WEIGH NOT LESS THAN 54#/100 SQ. FT. (2.63 kg/m).
- 4. WHEN CONCRETE COLLARS ARE CONSTRUCTED ADJACENT TO AN EXISTING CONCRETE STRUCTURE (HEADWALLS, ETC.) EXPANSION BOLTS, SHALL BE USED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, FOR EXPANSION BOLTS OF THE SIZE SPECIFIED IN THE PLANS.
- 5. CONCRETE COLLARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, PER CUBIC YARD (CUBIC METER), FOR CONCRETE COLLARS INCLUDING ALL MATERIAL AND LABOR SPECIFIED TO COMPLETE THE WORK IN PLACE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

| | | | | | | | | | | | DETAIL NO. 54248510 | | | |
|--|-------------------------------------|-------------------|-----------------|------------------------------|------------------------------------|------------|----------|--------------|--------------|--------------|---------------------|-------------|--|--|
| FILE NAME = | USER NAME = Matt Overbey | DESIGNED - | REVISED - 12/06 | | | CON | CRETE CO | III AR | F.A.I. | SECTION | COUNTY | TOTAL SHEET | | |
| \D570B99-sht-D5-District Standards.dgn | | DRAWN - | REVISED - | STATE OF ILLINOIS | CONCRETE COLLAR DISTRICT 5 DETAILS | | | 57 | (10-34-1)HBK | CHAMPAIGN | 1187 1038 | | | |
| | PLOT SCALE = 40.0000 ' / 10. | CHECKED - | REVISED - | DEPARTMENT OF TRANSPORTATION | | | | | | CONTRACT | T NO. 70B99 | | | |
| Section 600 | PLOT DATE = 3/18/2021 - 12:47:50 PM | DATE - MARCH 2021 | REVISED - | | SCALE: | SHEET 1 OF | 1 SHEETS | STA. TO STA. | | ILLINOIS FED | . AID PROJECT | | | |



OUTSIDE DIA. PLUS 6" (150)

(ALONG SLOPE)

DETAIL OF RE-BARS

END VIEW

ELEVATION

6" (150)

6" (150)

PIPE DRAIN

HEADWALL FOR BACKSLOPE OUTLET

WELDED WIRE FABRIC

PROPOSED PIPE

DRAIN

CONCRETE COLLAR

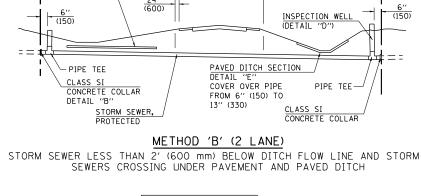
DETAIL "B"

EXISTING FIELD TILE OR
PROPOSED STORM SEWER, SPECIAL
OR STORM SEWER, PROTECTED

CLASS SI COLLAR

DETAIL "C"

DETAIL "A'



12" (300)

12" (300)

(TOE WALL)

#4 (10) RE-BARS @ ± 3" (75) CTS. BEND TO FIT

(250) (250)

.....

999 99 99

SIDE VIEW

1777

(150)

SIDE

END VIEW

(ALONG SLOPE)

(ALONG SLOPE)

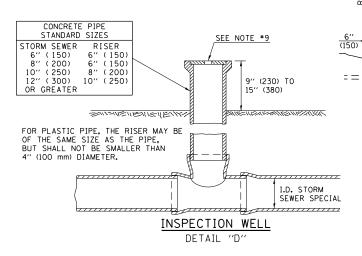
(ALONG SLOPE)

OUTSIDE DIAMETER

CONCRETE SLAB (SEE DETAIL "F" AND NOTE 7) COVER OVER PIPE FROM 13" (330) TO 24" (600)

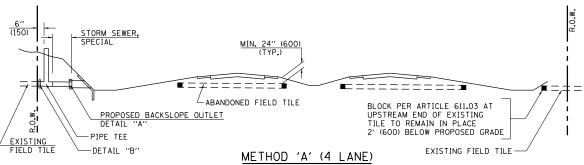
TRENCH BACKFILL

REQUIRED

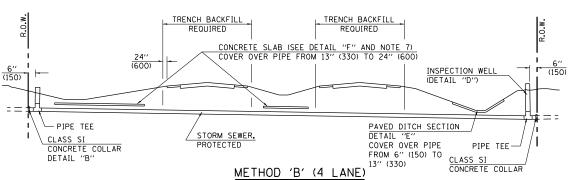


GENERAL NOTES

- 1. EXISTING FIELD TILE ENCOUNTERED BY EXPLORATION TRENCH SHALL BE INSPECTED BY THE ENGINEER FOR UNOBSTRUCTED FLOW WITHIN THE LIMITS OF THE RIGHT-OF-WAY.
- 2. ONLY FIELD TILE THAT DOES NOT HAVE SATISFACTORY FLOW AND OR HAS VISIBLE SIGNS OF DETERIORATION (SINK HOLES, ETC.) SHALL BE REPLACED WITHIN THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH METHOD "B".
- 3. INSPECTION WELLS SHALL BE CONSTRUCTED APPROXIMATELY 6" (150 mm) INSIDE OF BOTH RIGHT-OF-WAY LINES AT ALL FIELD TILE LOCATIONS.
- 4. EXISTING FIELD TILE ABANDONED UNDER EXISTING PAVEMENTS OR PAVED SHOULDERS SHALL BE FILLED WITH FLOWABLE GROUT AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.
- NON-CIRCULAR FIELD TILE SHALL BE REPLACED WITH STORM SEWER, SPECIAL OF AT LEAST THE SAME CROSS SECTIONAL AREA. ALL EXISTING FIELD TILE SHALL BE REPLACED WITH STORM SEWER OF THE TYPE REQUIRED FOR THE MINIMUM DEPTH OF COVER.
- 6. THE 6" (150 mm) CONCRETE SLAB OR DITCH LINING SHALL BE POURED THE LENGTH OF THE TRENCH AT ALL DITCH FLOW LINE LOCATIONS WITHIN THE RIGHT-OF-WAY WITH LESS THAN 2' (600 mm) OF EARTH COVER.
 MISCELLANEOUS CONCRETE SHALL BE USED ACCORDING TO SECTION 611.
- 7. ALL MISCELLANEOUS SLABS, APRONS AND DITCH LININGS SHALL BE REINFORCED WITH WELDED WIRE FABRIC AS SHOWN FOR PAVED DITCH IN STANDARD 606401.
- 8. HEADWALL FOR BACKSLOPE OUTLET MAY BE USED FOR PIPE DRAIN DIAMETERS UP TO 10" (250 mm). SPECIAL DESIGNS WILL BE REQUIRED
- 9. THE INSPECTION WELL LID FOR P.C.C. PIPE SHALL BE CONSTRUCTED OF 3/8" (10 mm) CAST IRON AND PROVIDED WITH A 1" (25 mm) DIAMETER HOLE IN CENTER. THE LID FOR THE OTHER PIPE MATERIALS SHALL BE A GRATE ASSEMBLY PREFABRICATED FOR AND COMPATIBLE WITH THE PIPE SYSTEM.



STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE



STORM SEWER LESS THAN 2' (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENTS AND PAVED DITCHES

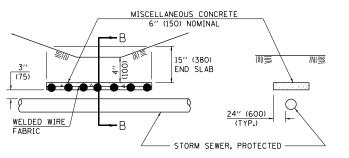
- TOP OF SLOPE

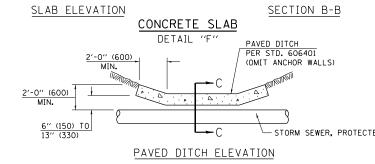
SECTION C-C

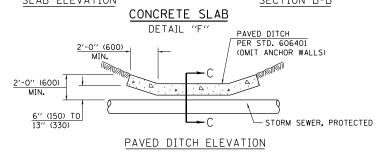
PAVED DITCH

DETAIL "E"

SCALE:







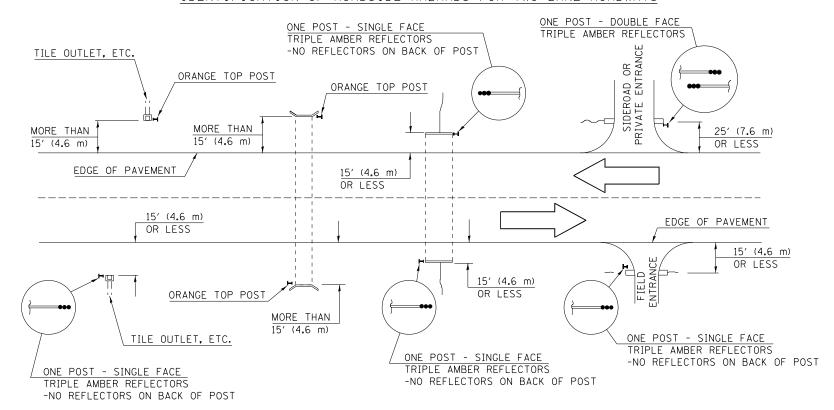
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

| FILE NAME = | USER NAME = Matt Uverbey | DESIGNED - | REVISED - 11/06 |
|--|-------------------------------------|-------------------|-----------------|
| \D570B99-sht-D5-District Standards.dgn | | DRAWN - | REVISED - |
| | PLOT SCALE = 40.0000 '/ in. | CHECKED - | REVISED - |
| Section 600 | PLOT DATE = 3/18/2021 - 12:47:50 PM | DATE - MARCH 2021 | REVISED - |

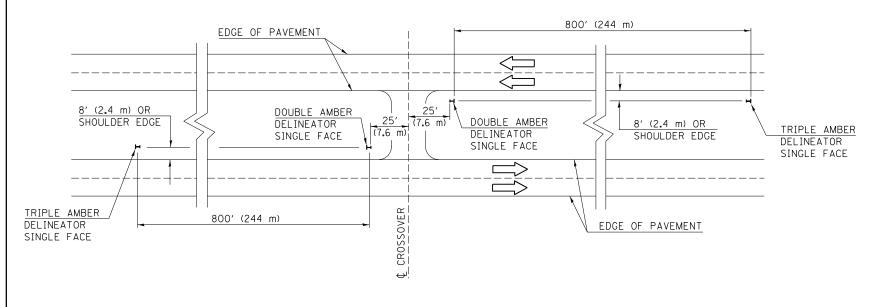
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

| | | | | | | DI | SIRICI 5 DETAIL | | | |
|--|-------|--------|--------|------|---------|----------------|------------------|------------|-----------------|--------------|
| FIELD TILE SYSTEMS (TREATMENT OF EXISTING) | | | | | | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| DISTRICT 5 DETAILS | | | | | 57 | (10-34-1)HBK | CHAMPAIGN | 1039 | | |
| | | וווטוט | | | | | | CONTRACT | NO. 7 | 70B99 |
| | SHEET | OF | SHEETS | STA. | TO STA. | | TILLINOIS FED. A | ID PROJECT | | |

IDENTIFICATION OF ROADSIDE HAZARDS FOR TWO-LANE ROADWAYS



MEDIAN DELINEATORS AT CROSSOVER (FOR INTERSTATES, EXPRESSWAYS, DUAL HIGHWAYS)



BILL OF MATERIALS

| - | | | | |
|-----------------|----------------|----------------|-----------------|----------------------|
| DELINEATOR TYPE | SINGLE FACE | DOUBLE FACE | NO REFLECTOR | TOTAL DELINEATORS |
| | TACL | | | DELINEATORS |
| SINGLE CRYSTAL | | N/A | N/A | |
| DOUBLE CRYSTAL | | | N/A | |
| SINGLE AMBER | | | N/A | |
| DOUBLE AMBER | | N/A | N/A | |
| TRIPLE AMBER | | | N/A | |
| ORANGE TOP | N/A | N/A | | |
| | | | TOTAL | |

NOTES

DELINEATORS FOR ROADSIDE HAZARDS SHALL ONLY BE PLACED AT LOCATIONS WHERE THERE IS NO GUARDRAIL, OR OTHERPERMANENT BARRIER, ON THE SAME SIDE OF ROAD AS THE HAZARD.

DELINEATORS FOR ROADSIDE HAZARDS SHALL ONLY BE PLACED AT LOCATIONS WHERE DELINEATORS ARE NOT IN PLACE ALONG THE EDGE OF SHOULDER.

EACH POST SHALL BE CONSIDERED AS ONE DELINEATOR FOR PAYMENT, REGARDLESS OF THE NUMBER OF DELINEATORS ATTACHED TO IT.

POSTS INDICATED AS "ORANGE TOP" SHALL HAVE NO REFLECTORS. THEY SHALL HAVE THE TOP 12" (300 mm) (MINIMUM) OF THE POST PAINTED A BRIGHT ORANGE COLOR SIMILAR TO CONSTRUCTION SIGNS, AND SHALL MEET THE APPROVAL OF THE ENGINEER. FLUORESCENT PAINT OR OTHER SPECIAL RETROREFLECTIVE COATINGS WILL NOT BE REQUIRED.

FOR ONE-WAY ROADWAYS THE APPLICATION SHALL BE SIMILAR WITH DELINEATORS PLACED ON THE TRAFFIC APPROACH SIDE OF HAZARDS AND OBJECTS. ONLY SINGLE FACE DELINEATORS WILL BE REQUIRED ON ONE-WAY ROADWAYS.

FOR OTHER DELINEATOR APPLICATIONS. REFER TO HIGHWAY STANDARD 635001.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

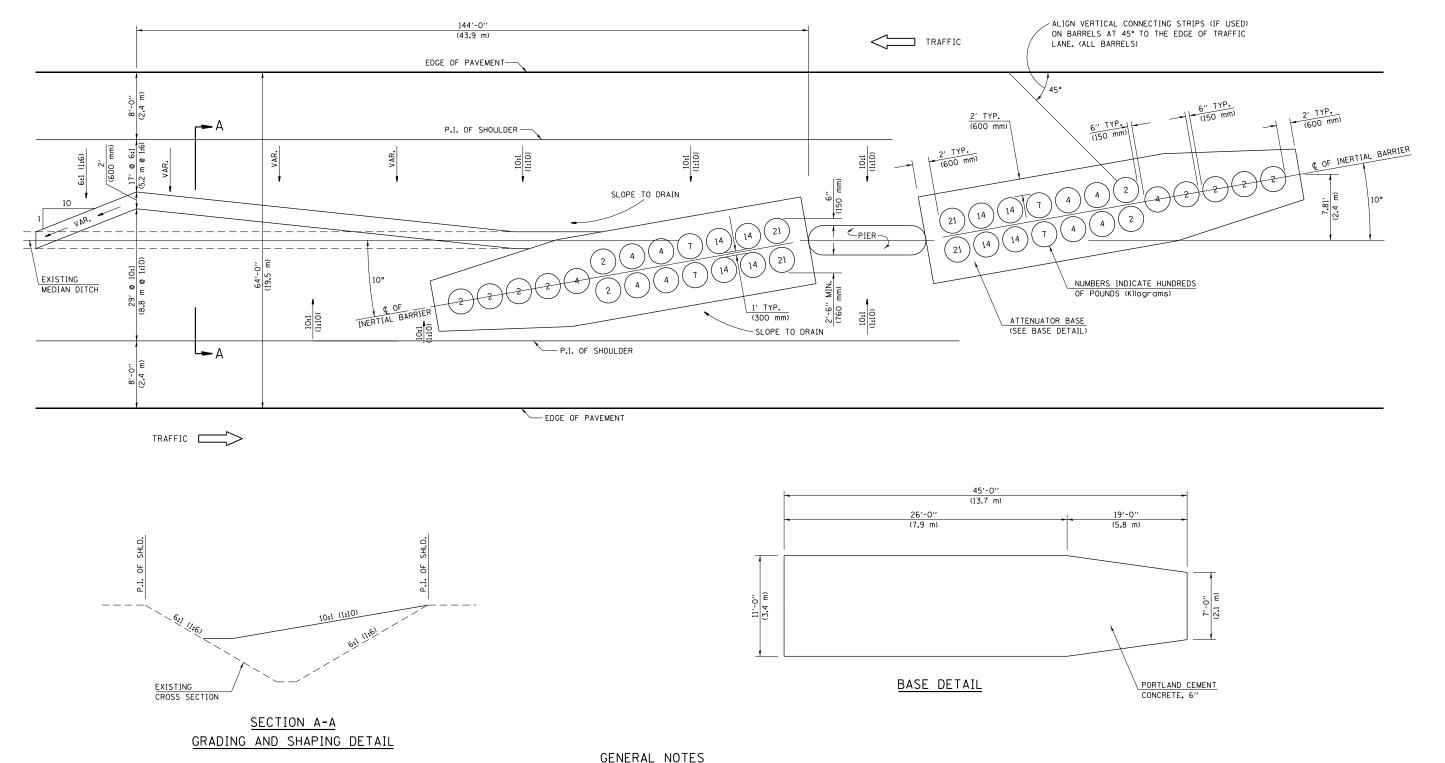
| n | ISTRIC: | T 5 | DETAIL | NΩ | 6350 | በ1በ5 |
|---|---------|-----|--------|----|------|------|
| | | | | | | |

COUNTY

CHAMPAIGN 1187 1040 CONTRACT NO. 70B99

| FILE NAME = | USER NAME = Matt Overbey | DESIGNED - | REVISED - 12/06 | | | | DE | LINEATOR | c | | F.A.I. | SECTION |
|--|-------------------------------------|-------------------|-----------------|------------------------------|--------|-------|-------|-----------|------|---------|--------|---------------|
| \D570B99-sht-D5-District Standards.dgn | | DRAWN - | REVISED - | STATE OF ILLINOIS | | | | | | | 57 | (10-34-1)HBK |
| 1 | PLOT SCALE = 40.0000 '/ in. | CHECKED - | REVISED - | DEPARTMENT OF TRANSPORTATION | | | DISTR | ICT 5 DET | AILS | | 5. | 110 31 1/1010 |
| Section 600 | PLOT DATE = 3/18/2021 - 12:47:50 PM | DATE - MARCH 2021 | REVISED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO STA. | 1 | ILL INDIS FE |

70 MPH (110 km/h) DESIGN - 64' (19.5 m) MEDIAN



1. ALL 10:1 (1:10) SLOPES SHOWN ON THIS DETAIL SHALL BE CONSTRUCTED 10:1 (1:10) OR FLATTER.

- 2. THE SLOPES AS SHOWN ON THIS DETAIL SHALL APPLY TO BOTH ENDS OF THE BRIDGE PIERS.
- 3. THE LENGTH X WIDTH OF MODULE LAYOUT IS 41.0' \times 7.0': 19 MODULES 14.400 LBS. (12.5 m \times 2.1 m : 19 MODULES 6532 kg).
- 4. IN AREAS OF 10:1 (1:10) SLOPES PRECEDING THE ATTENUATOR IN THE MEDIAN INSTALLATION, FOUR OR MORE WOOD POSTS SHALL BE PLACED AT 5' (1.5 m) INTERVALS IN THE MEDIAN & SEE SPECIAL PROVISIONS AND SCHEDULES.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

| DISTRICT | 5 | DETAIL | NO. | Z0030150D |
|----------|---|--------|------|------------------|
| DIGITIO | • | DEIAIL | INO. | 20030130D |

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------|-----------------|------------|-----------------|--------------|
| 57 | (10-34-1)HBK | CHAMPAIGN | 1187 | 1041 |
| | | CONTRACT | NO. 7 | OB99 |
| | ILLINOIS FED. A | ID PROJECT | | |

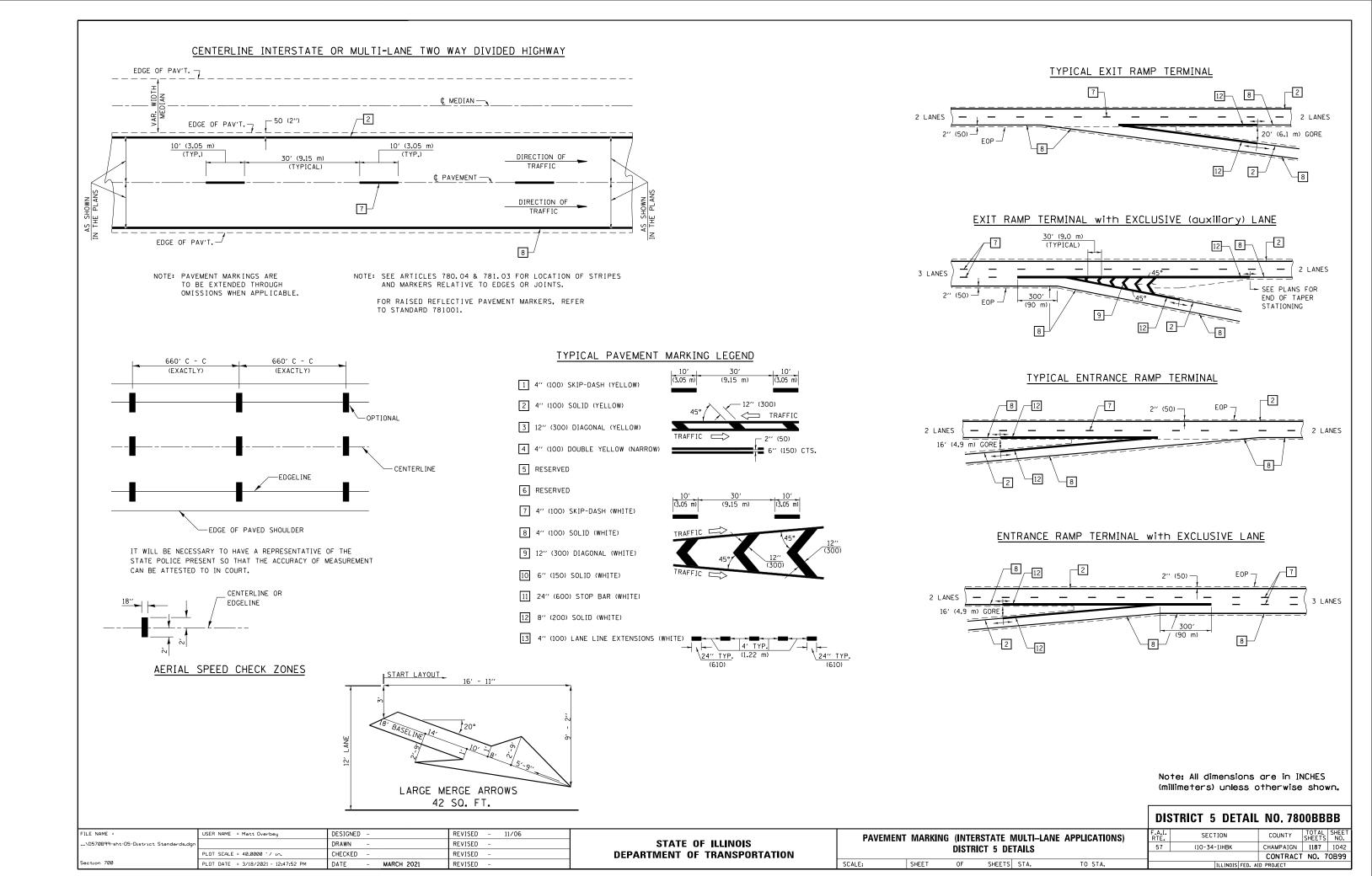
| FILE NAME = | USER NAME = Matt Overbey | DESIGNED - | REVISED - 11/06 |
|--|-------------------------------------|-------------------|-----------------|
| \D570B99-sht-D5-District Standards.dgn | | DRAWN - | REVISED - 12/08 |
| | PLOT SCALE = 40.0000 '/ in. | CHECKED - | REVISED - 05/11 |
| Section 600 | PLOT DATE = 3/18/2021 - 12:47:50 PM | DATE - MARCH 2021 | REVISED - |

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

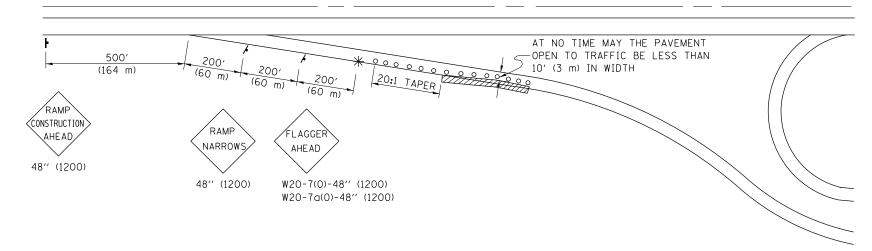
IMPACT ATTENUATORS (NON-REDIRECTIVE) TEST LEVEL 3

DISTRICT 5 DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.



APPLICATION NO. 1 DAY OPERATION ONLY PARTIAL RAMP CLOSURE



GENERAL NOTES

CONSTRUCTION OPERATIONS SHALL BE CONFINED TO AN AREA NARROW ENOUGH THAT A MINIMUM OF 10' (3 m) OF PAVEMENT SHALL BE OPEN TO TRAFFIC AT ALL TIMES.

FULL WIDTH PAVEMENT ON THE RAMPS SHALL BE OPEN TO TRAFFIC AT NIGHT.

WHEN NO WORK IS BEING PERFORMED, THE FLAGGER WILL NOT BE REQUIRED. IF THE FLAGGER IS NOT PRESENT, THE FLAGGER SIGNS SHALL BE REMOVED OR COVERED.

ALL SIGNS SHALL BE POST MOUNTED IF WORK IN THE AREA EXCEEDS FOUR DAYS OF DAYTIME OPERATIONS.

LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.

ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGER) AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE DISTRICT ENGINEER.

APPLICATION NO. 2 RAMP CLOSURE

SYMBOLS

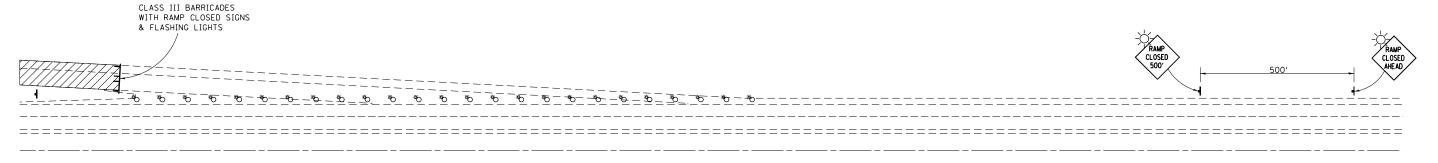
- (APPLICATION NO. 1) TYPE I OR II BARRICADES OR DRUMS @ 50' (15 m) CTS.
- ♦ (APPLICATION NO. 2) TYPE I OR II BARRICADES OR DRUMS @ 25' (7.5 m) CTS. W/STEADY BURNING LIGHTS
- * (APPLICATION NO. 1) FLAGGER PLACED AS DIRECTED BY THE ENGINEER
- ▶ SIGN ON PORTABLE OR PERMANENT SUPPORT

WORK AREA

TYPICAL APPLICATIONS

PAVEMENT PATCHING PIPE UNDERDRAINS HMA RESURFACING

Traffic Control for all ramps shall be in accordance with the appropriate application of plan detail TRAFFIC CONTROL FOR RAMPS and will not be paid for separately, but shall be included in the contract lump sum prices for Traffic Control and Protection, Standard 701401 and Traffic Control and Protection, Standard 701406.



GENERAL NOTES

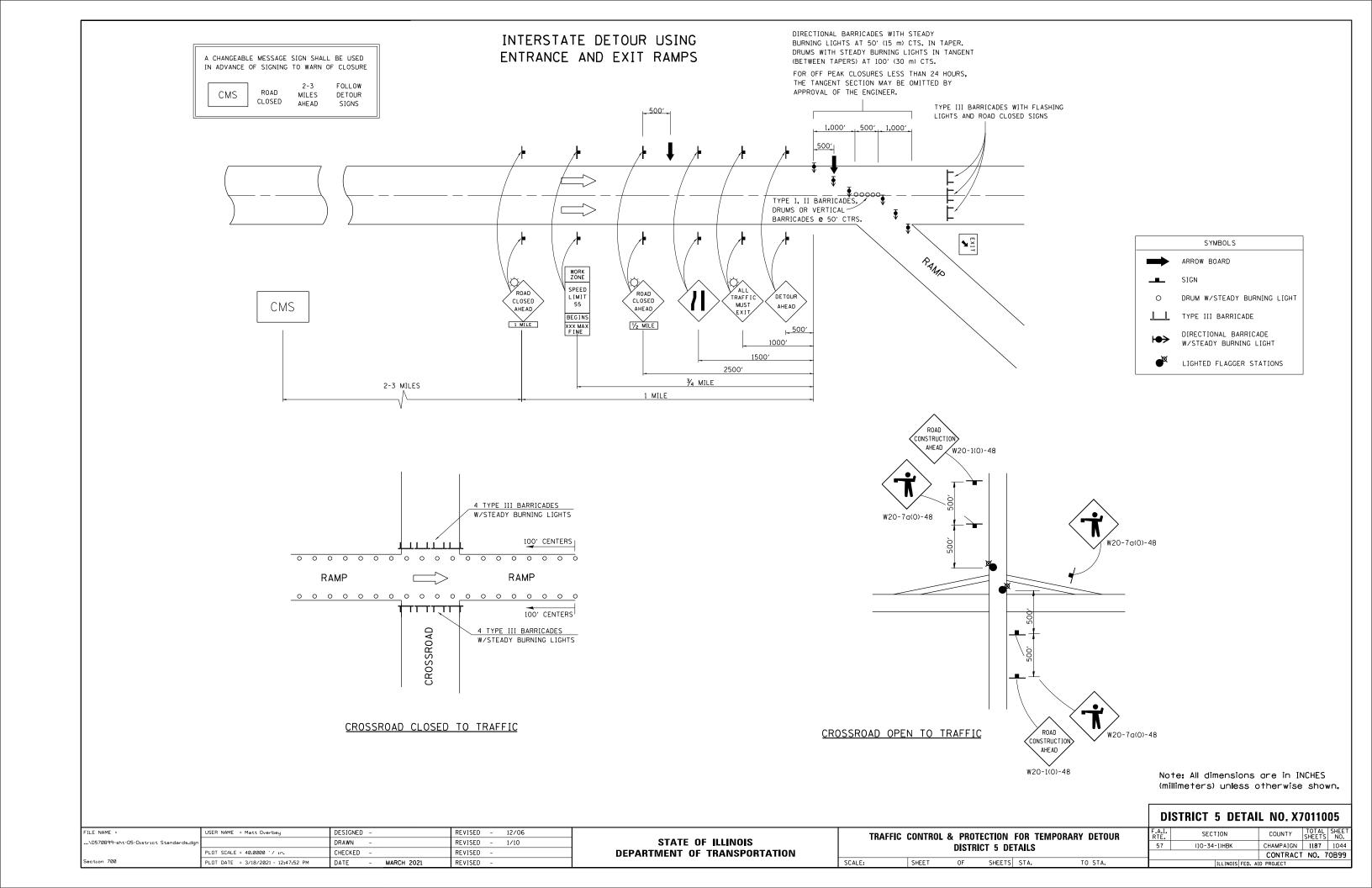
STEADY BURN LIGHTS ARE NOT REQUIRED FOR DAYTIME OPERATIONS.

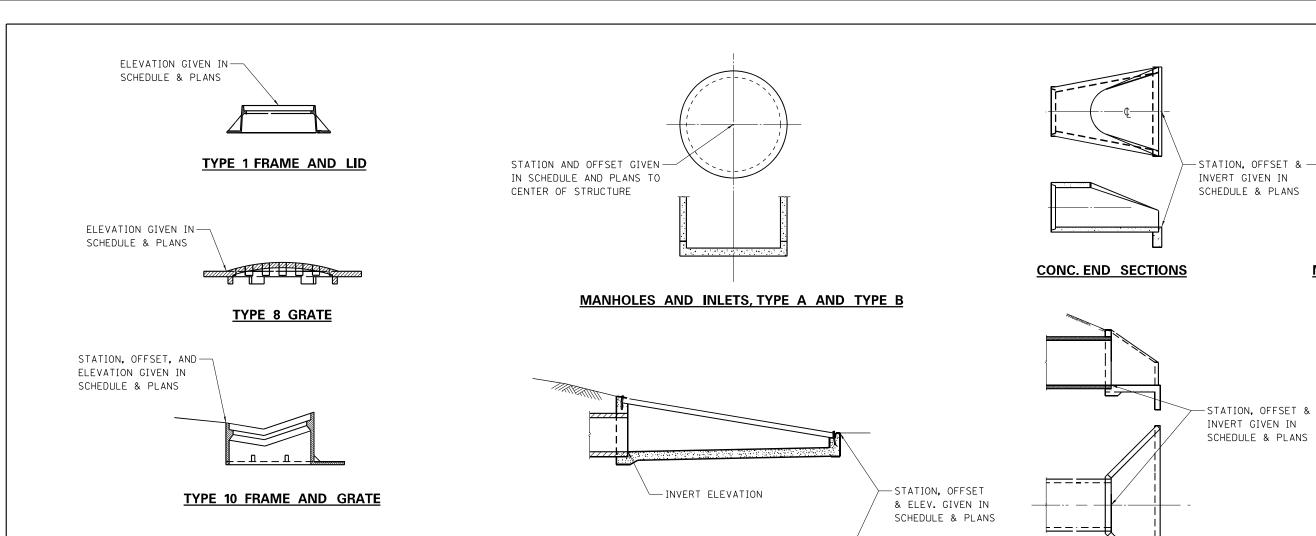
CONTACT THE DISTRICT TRAFFIC OPERATIONS ENGINEER AT 217-465-4181, ONE WEEK PRIOR TO CLOSING THE RAMP.

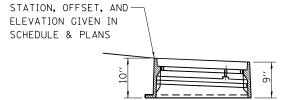
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 70103710

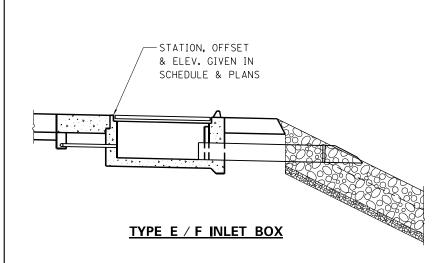
| FILE NAME = | USER NAME = Matt Overbey | DESIGNED - | REVISED - 11/09 | | TRAFFIC CONTROL FOR RAMPS | | F.A.I. | SECTION | COUNTY TOTAL SHEETS | EET |
|--|-------------------------------------|-------------------|-----------------|------------------------------|---------------------------|------------------------------|--------|-----------------|---------------------|-----|
| \D570B99-sht-D5-District Standards.dgr | ח | DRAWN - | REVISED - | STATE OF ILLINOIS | | DISTRICT 5 DETAILS | 57 | (10-34-1)HBK | CHAMPAIGN 1187 1 | 043 |
| | PLOT SCALE = 40.0000 '/ in. | CHECKED - | REVISED - | DEPARTMENT OF TRANSPORTATION | | DISTRICT 3 DETAILS | | | CONTRACT NO. 70E | 99 |
| Section 700 | PLOT DATE = 3/18/2021 - 12:47:52 PM | DATE - MARCH 2021 | REVISED - | | SCALE: | SHEET OF SHEETS STA. TO STA. | 1 | TILINOIS FED AT | D PROJECT | |

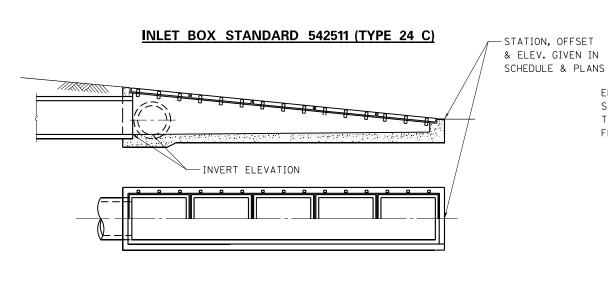






TYPE 20 FRAME AND GRATE

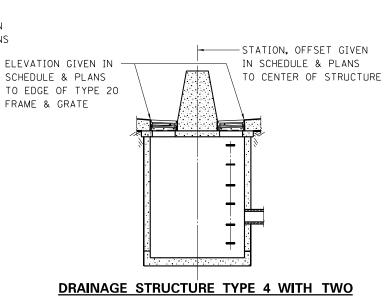






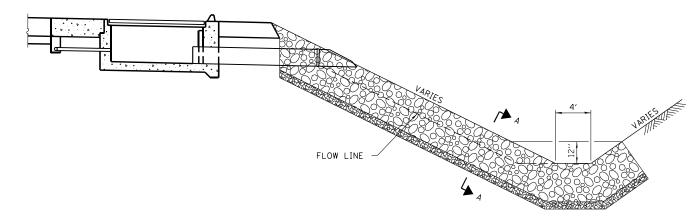


METAL END SECTIONS

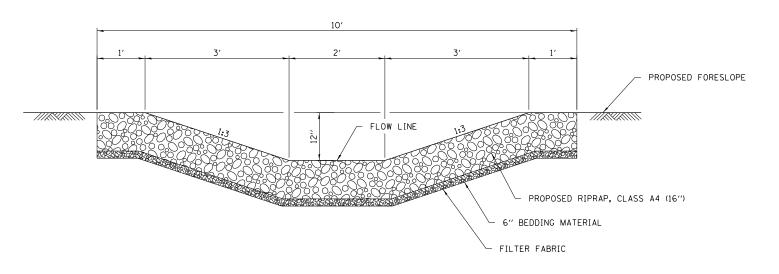


| RAINAGE | STR | <u>UCTURE</u> | TYPE | 4 | WITH | TWO |
|---------|-----|---------------|------|----|-------------|-----|
| TYPE | 20 | FRAME | AND | GR | <u>ATES</u> | |

| FILE NAME = | USER NAME = Matt Overbey | DESIGNED - SCD | REVISED - | | MISCELLANEOUS DETAILS | | F.A.I. | SECTION | COUNTY SE | TOTAL SHEET | | | | |
|-------------------------------|-------------------------------------|-------------------|-----------|------------------------------|-------------------------------------|-------|--------|---------|--------------|-------------|-----------|-----------------|-------------|--|
| \C-3\D570B99-sht-Det-DrainRef | | DRAWN - SCD | REVISED - | STATE OF ILLINOIS | | | | 57 | (10-34-1)HBK | CHAMPAIGN 1 | 1187 1045 | | | |
| | PLOT SCALE = 2.0000 ' / in. | CHECKED - | REVISED - | DEPARTMENT OF TRANSPORTATION | DRAINAGE STRUCTURE REFERENCE POINTS | | | | CONTRACT N | NO. 70B99 | | | | |
| Default | PLOT DATE = 3/18/2021 - 12:48:48 PM | DATE - MARCH 2021 | REVISED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO STA. | | ILLINOIS FED. A | NID PROJECT | |

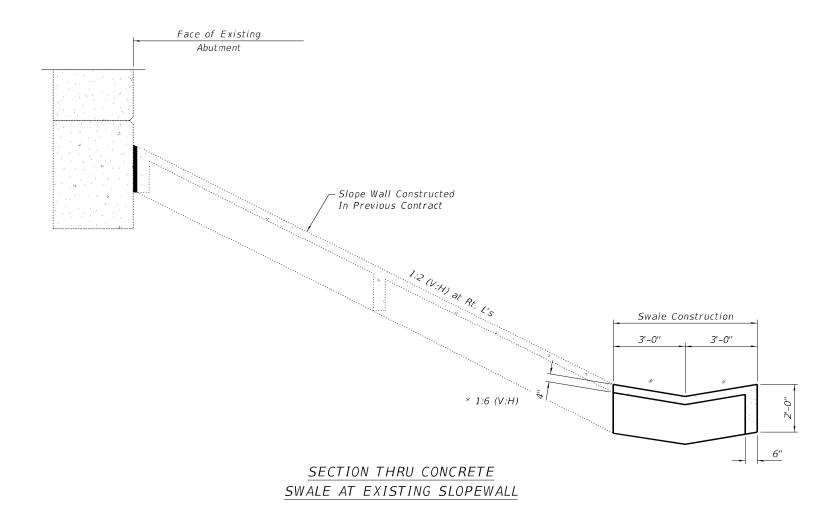


RIPRAP DETAIL AT DRAINAGE OUTLET



SECTION A-A

| FILE NAME = | USER NAME = Matt Overbey | DESIGNED - SCD | REVISED - | | MISCELLANEOUS DETAILS | | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | | | | |
|------------------------------|-------------------------------------|-------------------|-----------|------------------------------|-----------------------|-------|----------------|---------|--------------|-----------------|--------------|---------------|-------------|--|--|
| \D570B99-sht-Det-DrainDetail | | DRAWN - RG | REVISED - | STATE OF ILLINOIS | RIPRAP | | | 57 | (10-34-1)HBK | CHAMPAIGN | 1187 | 1046 | | | |
| | PLOT SCALE = 2.0000 ' / in. | CHECKED - | REVISED - | DEPARTMENT OF TRANSPORTATION | KIPKAP | | | | CONTRAC | T NO. 7 |)B99 | | | | |
| Default | PLOT DATE = 3/18/2021 - 12:48:50 PM | DATE - MARCH 2021 | REVISED - | | SCALE: | SHEET | OF | SHEETS | S STA. | TO STA. | | ILLINOIS FED. | AID PROJECT | | |



BILL OF MATERIAL

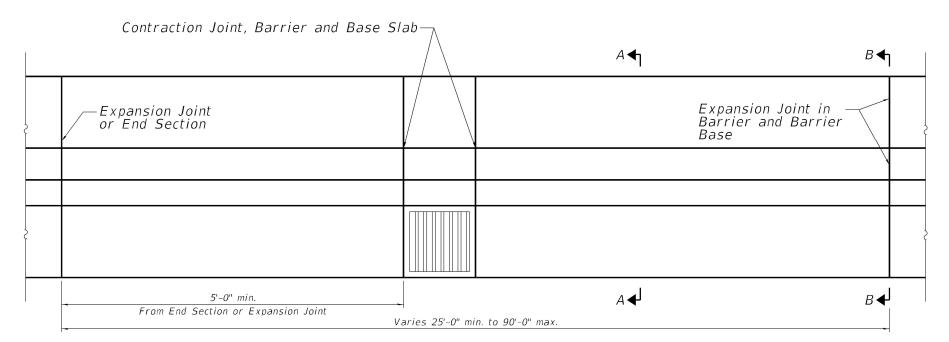
| S.N. 010-1050 (U.S. 150 OVER I-57) | | | | | | | | | |
|------------------------------------|---------|------|--|--|--|--|--|--|--|
| Slope Wall, 4 inch | Sq. Yd. | 30.6 | | | | | | | |
| , | | | | | | | | | |
| S.N. 010-1100 (MATTIS OVER I-57) | | | | | | | | | |
| Slope Wall, 4 inch | Sq. Yd. | 59.7 | | | | | | | |
| | | | | | | | | | |
| Total | | | | | | | | | |
| Slope Wall, 4 inch | Sq. Yd. | 90.3 | | | | | | | |

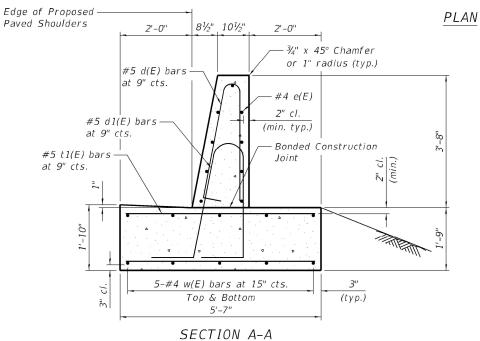
Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft. Cost included in Slope Wall, 4 inch.

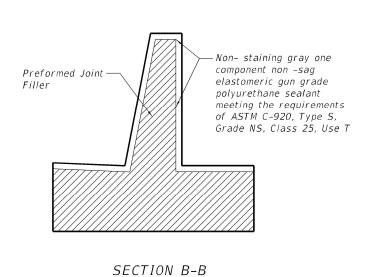
S.N. 010-1050 (U.S. 150 OVER I-57) - WEST SLOPE WALL S.N. 010-1100 (MATTIS OVER I-57) - SOUTH SLOPE WALL

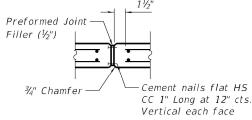


| FILE NAME = | USER NAME = Matt Overbey | DESIGNED - KEG | REVISED - | | MISCELLANEOUS DETAILS | | | | F.A.I. | SECTION | COUNTY TOTAL SHEET | |
|--------------------------------|-------------------------------------|-------------------|-----------|------------------------------|---|-------|----|---------------|---------------------|--------------------|--------------------|-------------|
| \C-3\D570B99-sht-Det-Slopewall | | DRAWN - KEG | REVISED - | STATE OF ILLINOIS | SWALE CONSTRUCTION AT EXISTING SLOPE WALL | | | (10-34-1) HBK | CHAMPAIGN 1187 1047 | | | |
| | PLOT SCALE = 0.1667 ' / in. | CHECKED - KEG | REVISED - | DEPARTMENT OF TRANSPORTATION | SWALL CONSTRUCTION AT EXISTING SLOTE WALL | | | | | CONTRACT NO. 70B99 | | |
| Default | PLOT DATE = 3/18/2021 - 12:48:52 PM | DATE - MARCH 2021 | REVISED - | | SCALE: | SHEET | OF | SHEETS STA. | TO STA. | | ILLINOIS FED. | AID PROJECT |











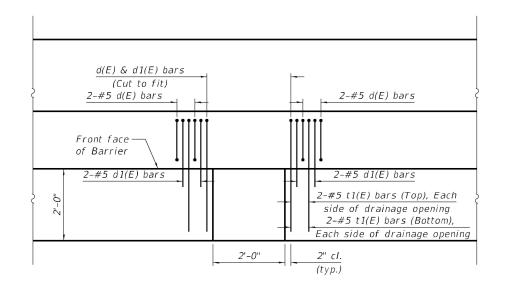
EXPANSION JOINT

| FILE NAME = | USER NAME = Matt Overbey | DESIGNED | - | KEG | REVISED - |
|------------------------------------|-------------------------------------|----------|---|------------|-----------|
| \D570B99-sht-Det-BarrierSingleFace | | DRAWN | - | KEG | REVISED - |
| | PLOT SCALE = 0.1667 ' / in. | CHECKED | - | KEG | REVISED - |
| Default | PLOT DATE = 3/18/2021 - 12:48:55 PM | DATE | - | MARCH 2021 | REVISED - |

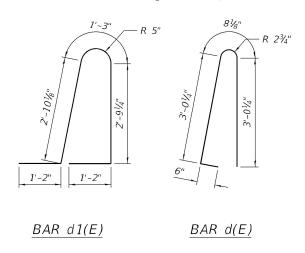
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SCALE:

SECTION MISCELLANEOUS DETAILS CONCRETE BARRIER, SINGLE FACE, 44 INCH (TL-4) (10-34-1) HBK SHEET OF SHEETS STA.



PLAN (Reinforcement shown around Drainage Structure)



This is a reinforced concrete TL-4 roadside barrier. The minimum length of installation shall be 25'-0".

Top of shoulder edge of barrier base gutter shall match the top of shoulder elevation.

1" deep contraction joints shall be constructed in both the reinforced concrete barrier wall and base. Contraction joints shall also be constructed at both sides of all drainage structures. Maximum contraction joint spacing shall be 30'-0"

The forming of contraction joints shall be done with an approved finishing tool or by sawing subject to the satisfactory control of cracking.

Reinforcement bars designated (E) shall be epoxy coated. Reinforcement bars bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures", ACI 315, Latest Edition. Reinforcement bar bending dimensions are out to out.

At drainage structures, cut footing bars to fit. Add an additional pair of d(E), d1(E), t(E) and t1(E) bars on each side of the drainage structure.

Expansion joints shall be constructed in barrier wall at a maximum joint spacing of 90'-0" and a minimum joint spacing of 25'-0". See section B-B for details.

COUNTY

CHAMPAIGN 1187 1048

CONTRACT NO. 70B99

