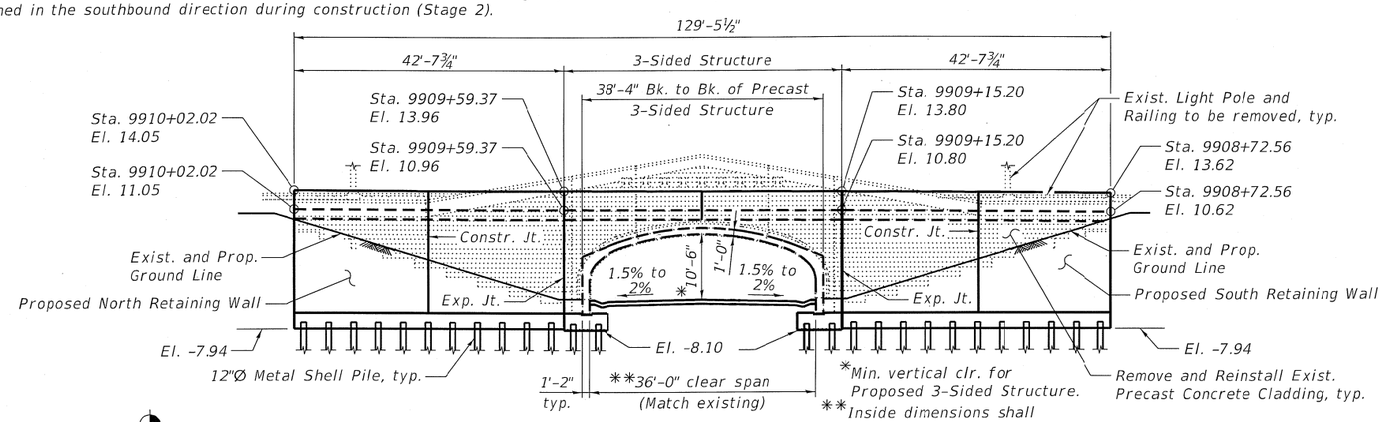
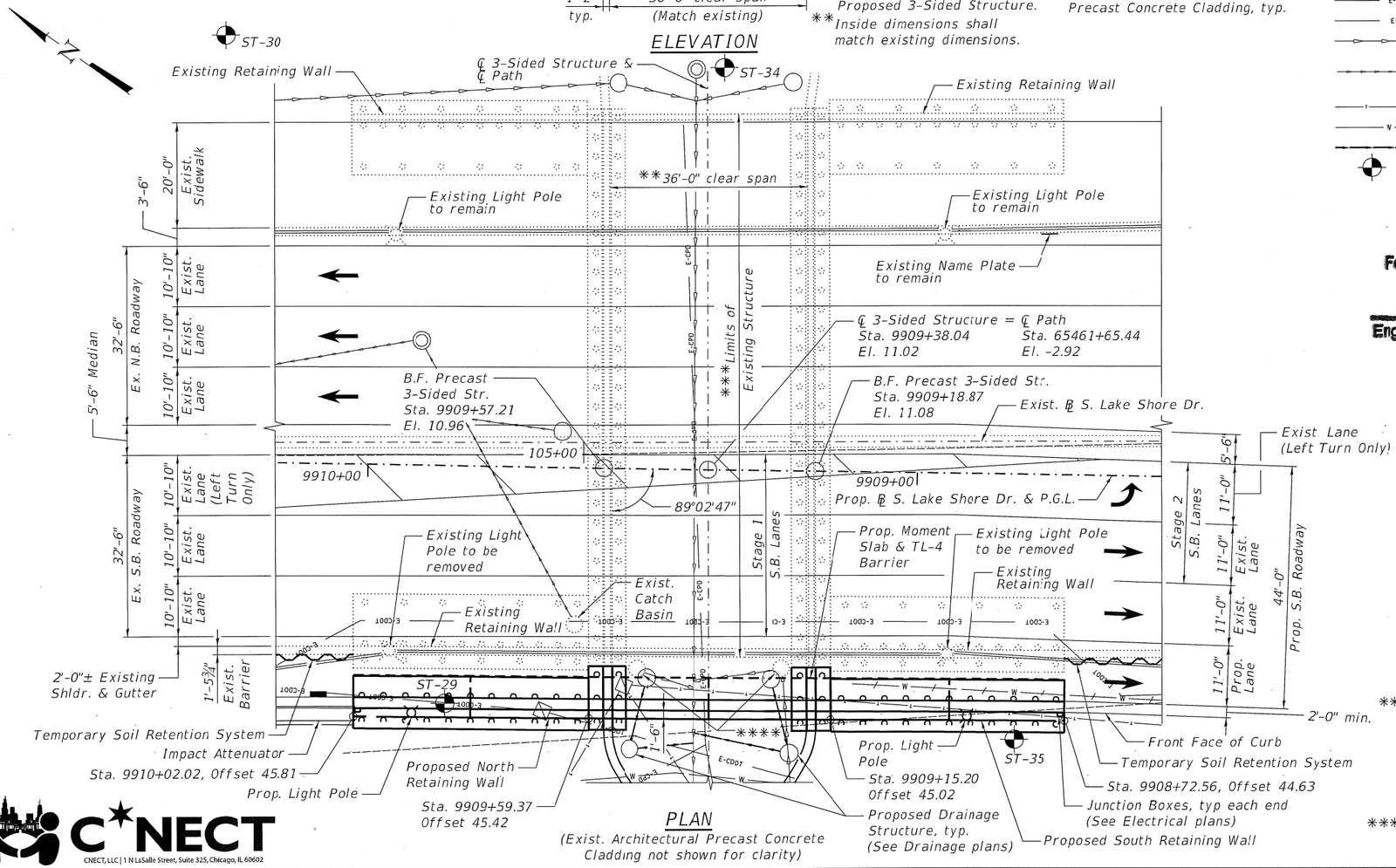
Bench Mark:
A cut sqaure in center of west side of concrete foundation of high mast light pole on the east side of pedestrian underpass, 300'± north of Hayes Drive. Elevation = 10.60 Chicago City Datum (CCD).

Existing Structure: S.N. 016-6546 was constructed in 2004 as F.A.U. Rte. 2873, Section 00-B0241-06-PV at Sta. 104+78.05. Existing structure is a single span three sided structure consisting of precast arch segments that are 5'-0" wide nominally except for the end two that are varying in size. The substructure is considered the vertical portions of the concrete arch which are supported on cast in place concrete footings supported on metal shell piles. The structure has a total length of 38'-4" back-to-back of arches and an out-to-out width of approximately 99'-0". Anticipated maintenance of traffic includes an initial period with no detours (Stage 1). After the initial period and as required for construction, one through lane and one left turn lane of traffic shall be maintained in the southbound direction during construction (Stage 2).

No salvage.

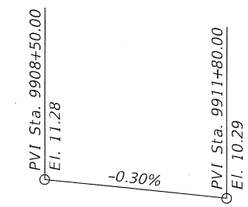


ELEVATION



PLAN

(Exist. Architectural Precast Concrete Cladding not shown for clarity)



PROPOSED PROFILE GRADE

(Along Prop. ℄ South Lake Shore Drive)
(See Path Profile Grade on Sheet SE-6)

LEGEND

- Exist. Underground Cable IDOT
- Exist. Lighting Conduit
- E-CDOT — Exist. Underground Electrical CDOT
- E-CPD — Exist. Underground Electrical CPD
- Exist. Underground Storm Sewer CPD
- Exist. Underground Storm Sewer DWM
- Exist. Underground Telephone ATT
- W — Exist. Underground Water CPD
- Prop. Underground Storm Sewer
- Soil Boring

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

JAMES L. SURBER
081-007741
LICENSED
STRUCTURAL
ENGINEER
STATE OF ILLINOIS

EXPIRATION DATE: 11-30-2022
DATE: 03-31-2020

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

WALL DEFLECTION CRITERIA

At any location, maximum total lateral deflection at the top of the wall shall not exceed 1.0 inch or 1% exposed height of the wall, whichever is minimum.

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

DESIGN STRESSES

PRECAST UNITS (New Construction)
f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)
FIELD UNITS (New Construction)
f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)
PRECAST UNITS (Exist. Construction)
f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Fabric)
FIELD UNITS (Exist. Construction)
f'c = 3,500 psi (Retaining Wall)
f'c = 4,000 psi (CDOT Barrier)
fy = 60,000 psi (Reinforcement)

SEISMIC DATA

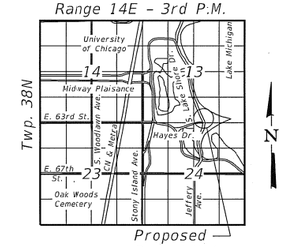
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.5

NOTES:

1. Stations and offsets are measured to front face of proposed cast-in-place Retaining Wall (not including Exist. Architectural Precast Concrete Cladding).
2. See Boring locations in General Sheets of Civil plans.

***Proposed structure has an out-to-out width of approximately 109'-10" along ℄ of 3-Sided Structure (not including Existing Architectural Precast Concrete Cladding).

****Exist. Catch Basin to be removed



Proposed Rehabilitation

LOCATION SKETCH

GENERAL PLAN AND ELEVATION
US 41 (SOUTH LAKE SHORE DRIVE)
UNDERPASS AT 63RD STREET
F.A.U. 2873 - SEC. 17-B7203-00-ES
COOK COUNTY
STATION 9909+38.04
STRUCTURE NO. 016-6546

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6546-gpe.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SHEET NO. SE-1 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	976
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.

2. The foundation design is based on the following maximum service reactions applied at the top of each of the metal shell piles:

   84 kips (vertical), 3 kips (horizontal)

   The contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete foundation design with calculations, details, and the required seals shall be submitted for review and approval.

3. The contractor shall furnish all tools, materials and equipment necessary to ensure that the precast units do not incur cracking while being transported to and from the project site, stored during construction and when being installed.

4. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor 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.

5. Elevations shall be verified in the field and may be adjusted as directed by the Engineer.

6. Slipforming of the barrier is not allowed.

7. Protective Concrete Sealer shall be applied to the entire top surface and inside vertical face of proposed barrier adjacent to the roadway along with the entire top surface of the exposed gutter of the proposed moment slab. All surfaces to be sealed shall be cleaned thoroughly prior to Protective Concrete Sealer application. See Special Provisions.

8. The Contractor must make his/her own investigation to determine the existence, nature and exact location of all utility lines and appurtenances within the limits of the project. The Contractor must provide all measures and precautions necessary to protect existing and new utilities.

9. All excavation for structures must be kept dewatered during construction operations until backfill is in place and provisions must be made to prevent the bottom of all excavations from freezing or flooding at all times. This work shall be paid for at the contract lump price for Dewatering Location #3. See Special Provisions.

10. Granular Backfill for Structures shall be placed per Article 586 of the 2019 Supplemental Specifications except mechanical compaction shall be required per Articles 502 and 205 of the Standard Specifications.

11. See Traffic Signal and Electrical Plans for traffic signal and lighting details.

12. See Drainage Plans for drainage details.

13. See Civil Plans for proposed contours.

14. Contractor shall prepare and submit Structural Assessment Reports (SARs) for the proposed work, including removals, on structure to the Engineer for approval before beginning work. See Special Provision for Structural Assessment Reports for Contractor's Means and Methods.

INDEX OF SHEETS

For existing structure plans, see Sheets SEX-1 thru SEX-50 immediately following Sheet SE-20.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	TOTAL
*	Concrete Removal	Cu. Yd.	33.4
	Structure Excavation	Cu. Yd.	572
	High Performance Concrete Structures	Cu. Yd.	242.4
	Protective Concrete Sealer	Sq. Yd.	94
	Reinforcement Bars, Epoxy Coated	Pound	41,090
	Furnishing Metal Shell Piles 12"x0.250"	Foot	1,350
	Driving Piles	Foot	1,350
	Test Pile Metal Shells	Each	2
	Pile Shoes	Each	56
	Temporary Soil Retention System	Sq. Ft.	700
	Geocomposite Wall Drain	Sq. Yd.	218
	Membrane Waterproofing System for Buried Structures	Sq. Yd.	85
	Granular Backfill for Structures	Cu. Yd.	522
	Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	5
	Grout Repair	Foot	19
	Three-Sided Precast Concrete Structures 36'x13'	Foot	12
	Pipe Underdrains for Structures, 4"	Foot	130
	Remove and Reinstall Architectural Precast Concrete Cladding	L. Sum	0.5
	Dewatering Location #3	L. Sum	1

* Removal of existing railing and light poles included with "Concrete Removal".

SCOPE OF WORK

1. Remove and store existing architectural precast concrete cladding.
2. Remove and dispose of existing aluminum railing, light poles and top of retaining wall as shown in the plans.
3. Install temporary soil retention system and excavate as required.
4. Drive metal shell piles for 3-sided structure widening.
5. Widen existing arch footing and 3-sided structure.
6. Construct retaining wall footings, stems, headwall, moment slab and barrier and apply Protective Concrete Sealer.
7. Place waterproofing system, geocomposite wall drain and backfill.
8. Remove temporary soil retention system.
9. Reinstall exist. architectural precast concrete cladding.
10. Backfill and grade in front of retaining walls.
11. Install new light poles on top of barrier.
12. Install new underpass lighting and architectural elements on inside of 3-sided structure.

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GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-6546
SHEET NO. SE-2 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	977
CDOT PROJECT NO. B-7-203		SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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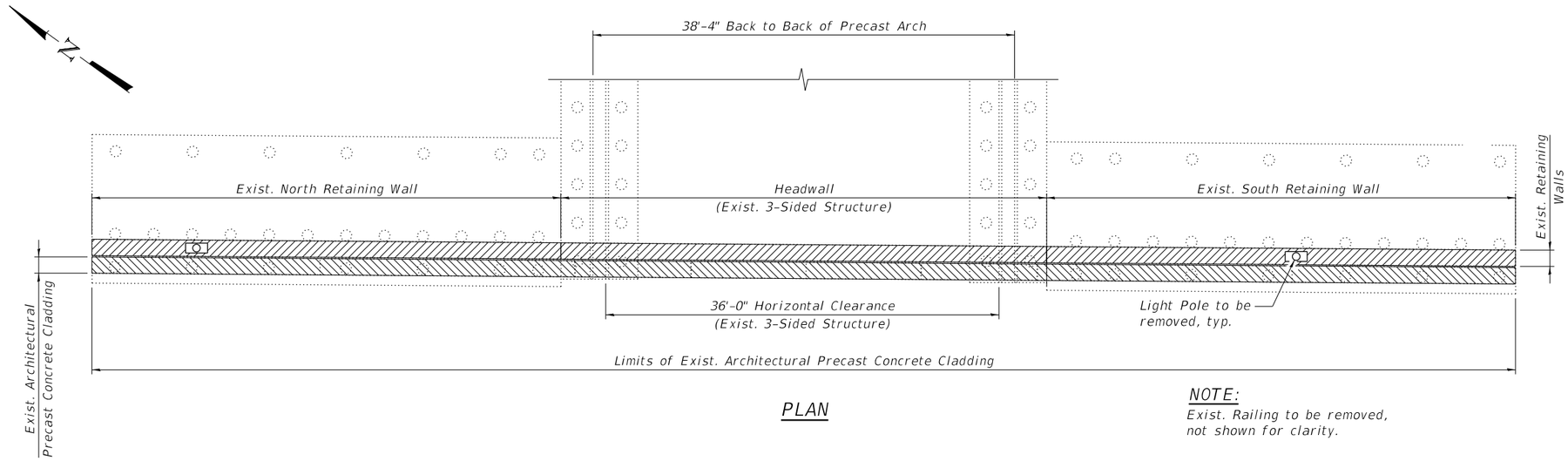
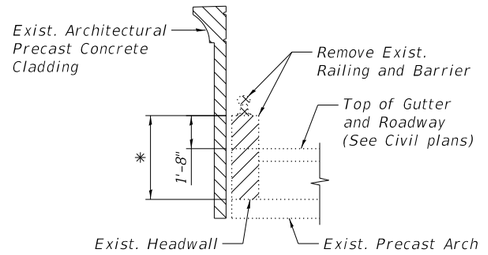


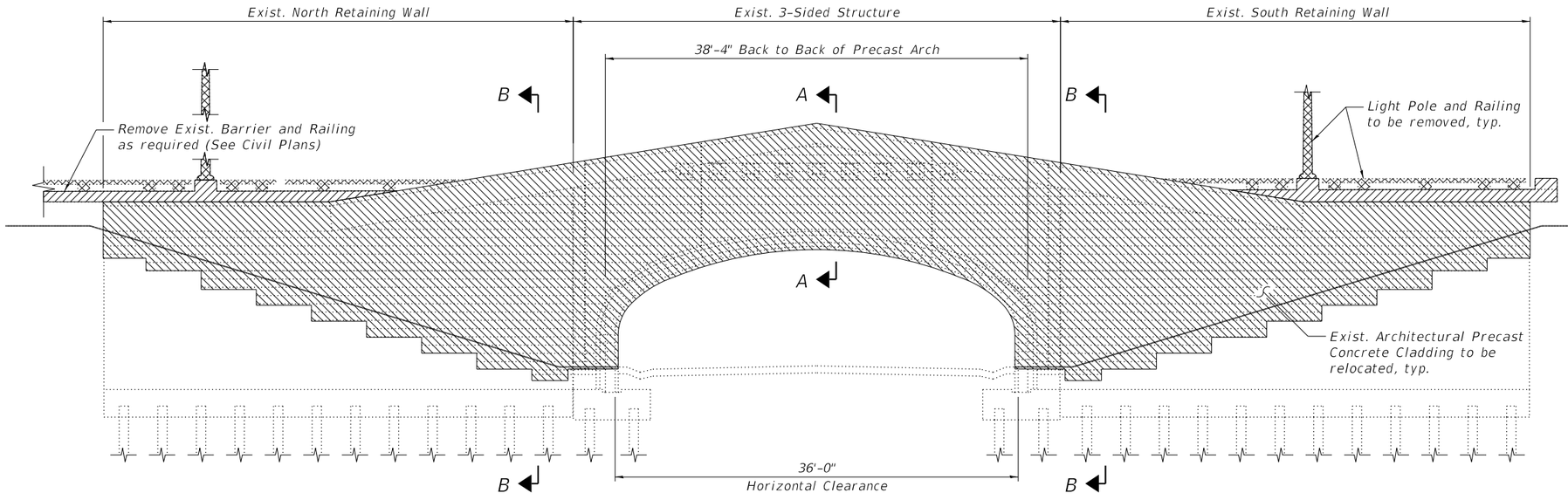
PLAN

NOTE:
Exist. Railing to be removed, not shown for clarity.

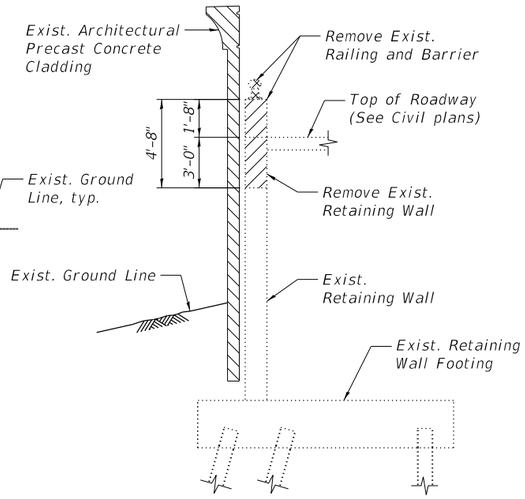


SECTION A-A

*Remove Exist. Barrier and Headwall to a minimum of 3'-0" below Top of Roadway or to top of Exist. Precast Arch, whichever is less.



ELEVATION



SECTION B-B

NOTE:
Refer to Existing plans for attachment details of Architectural Precast Concrete Cladding.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	33.4
Remove and Reinstall Architectural Precast Concrete Cladding	L. Sum	0.5

LEGEND

Remove Exist. Architectural Precast Concrete Cladding from 3-sided structure and retaining walls. Store and reinstall on widened structure. See Existing plans and Special Provision for "Remove and Reinstall Architectural Precast Concrete Cladding".

Concrete Removal

Remove exist. Light Poles and Aluminum Railing from 3-sided structure and retaining walls. Cost included with Concrete Removal.

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	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

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REMOVAL DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-3 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	978
CDOT PROJECT NO. B-7-203		SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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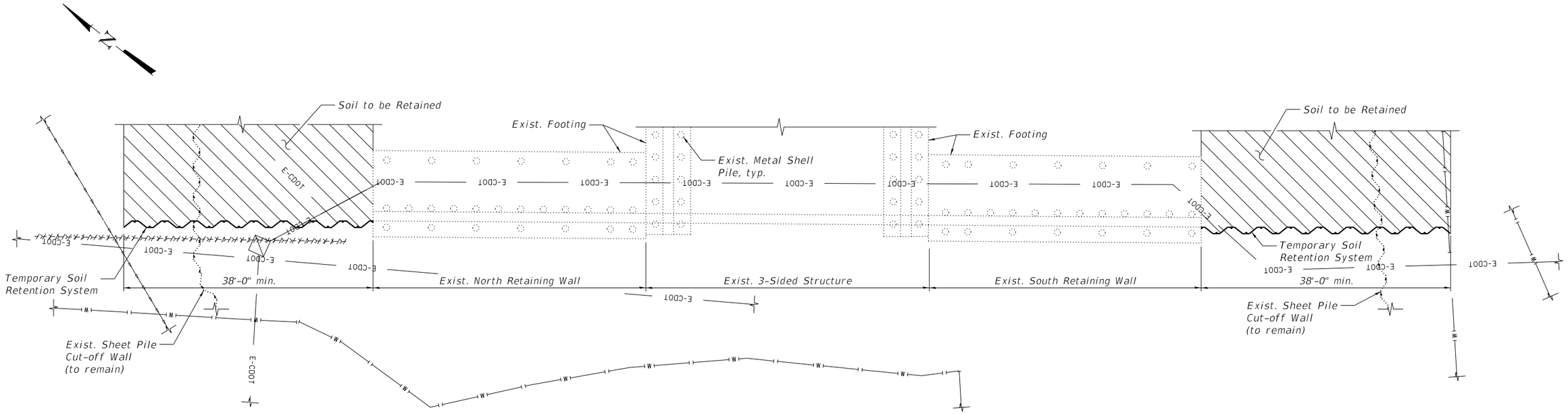
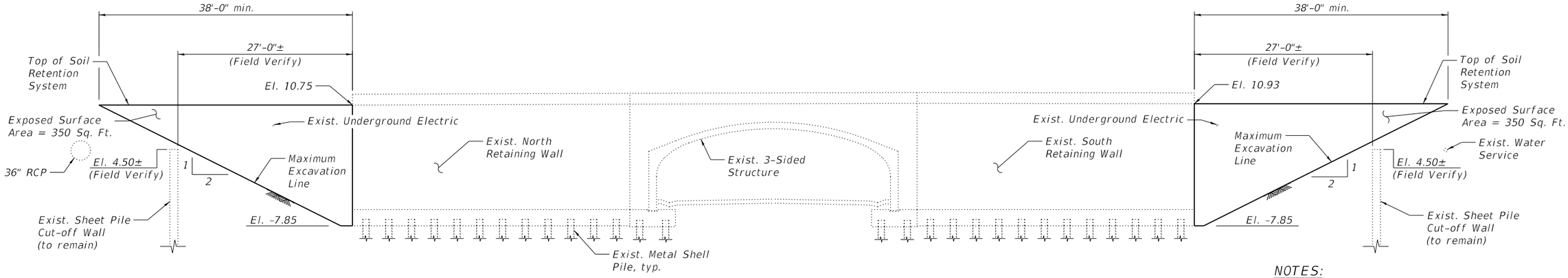


PLAN - TEMPORARY SOIL RETENTION SYSTEM



ELEVATION - TEMPORARY SOIL RETENTION SYSTEM

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Soil Retention System	Sq. Ft.	700

NOTES:

1. A cantelivered sheet pile design does not appear to be feasible and additional members or other retention systems may be necessary. The Contractor is responsible for retaining an Illinois Licensed Structural Engineer to detail the design of the proposed temporary soil retention system per Article 522 of the Standard Specifications. All supporting documents, calculations and details must be submitted to the Engineer for review and approval prior to starting construction.
2. The Temporary Soil Retention System shall be designed to support a minimum live load surcharge of 240 psf.
3. Existing utility locations to be field verified prior to design, approval and installation of Temporary Soil Retention System.

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TEMPORARY SOIL RETENTION SYSTEM DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-4 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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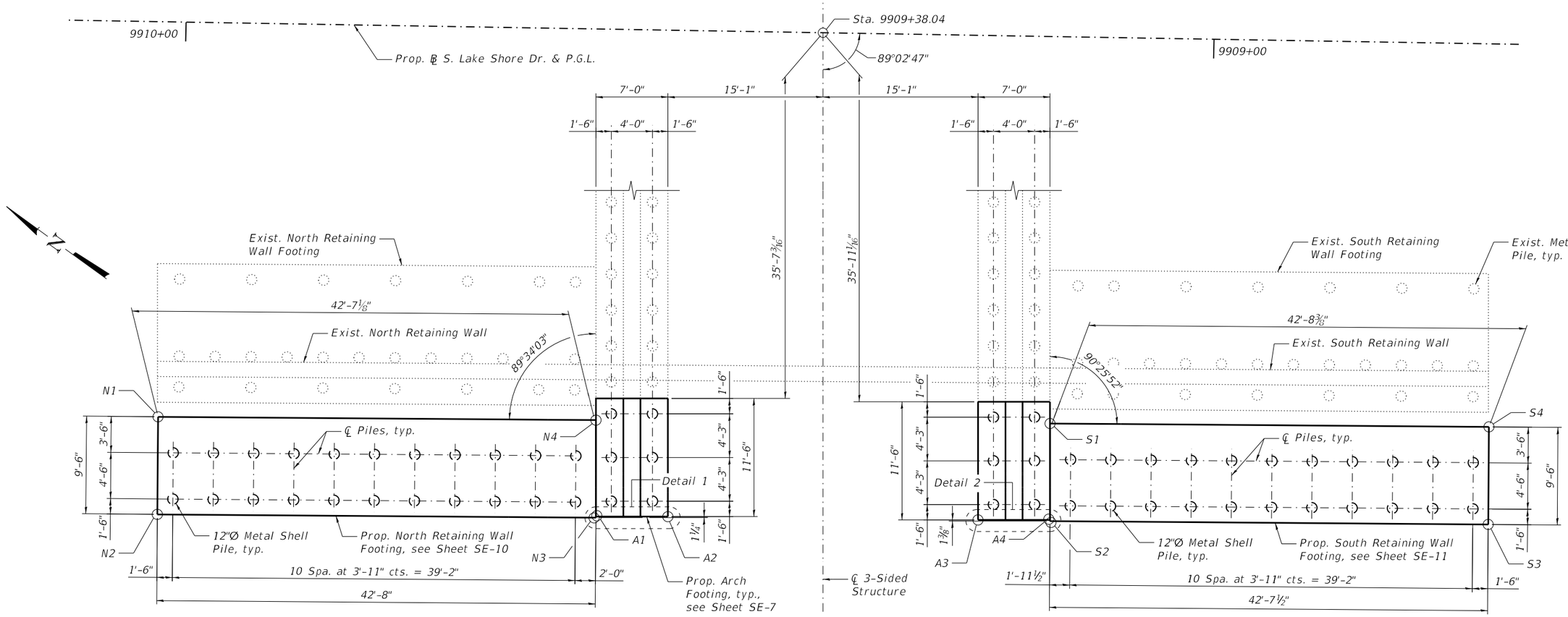
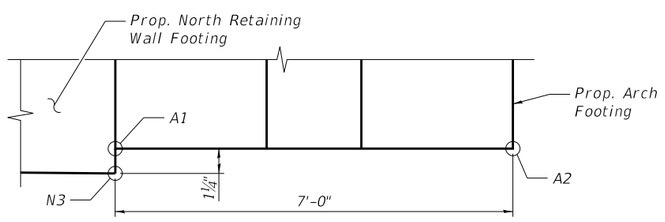
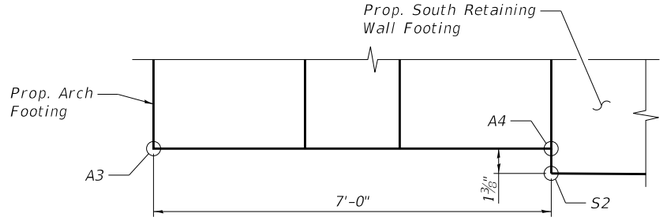
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				



PLAN – FOUNDATION AND PILE LAYOUT



DETAIL 1



DETAIL 2

FOUNDATION LAYOUT TABLE

Location	Station	Offset
A1	9909+59.34	47.46' Lt.
A2	9909+52.34	47.34' Lt.
A3	9909+22.17	47.16' Lt.
A4	9909+15.17	47.05' Lt.
N1	9910+02.08	38.45' Lt.
N2	9910+02.00	47.95' Lt.
N3	9909+59.34	47.56' Lt.
N4	9909+59.49	38.06' Lt.
S1	9909+15.33	37.66' Lt.
S2	9909+15.17	47.16' Lt.
S3	9908+72.54	46.77' Lt.
S4	9908+72.63	37.27' Lt.

NOTE:

See Sheet SE-14 for Metal Shell Pile Details.

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FOUNDATION LAYOUT
STRUCTURE NO. 016–6546
SHEET NO. SE-5 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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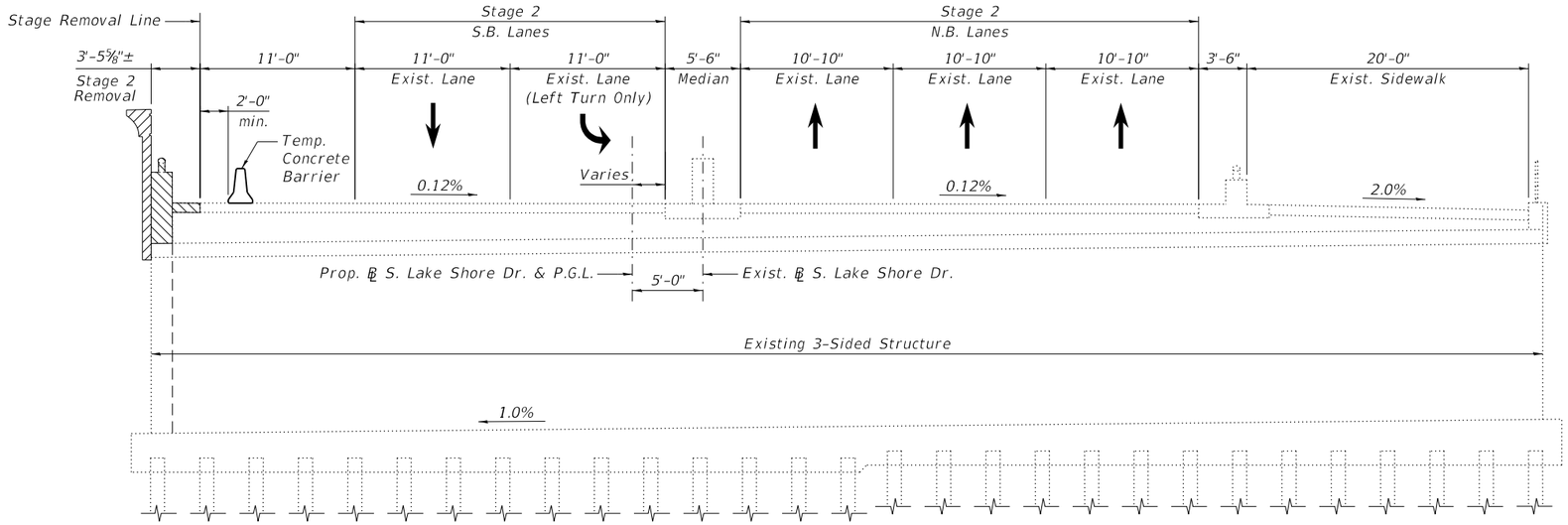
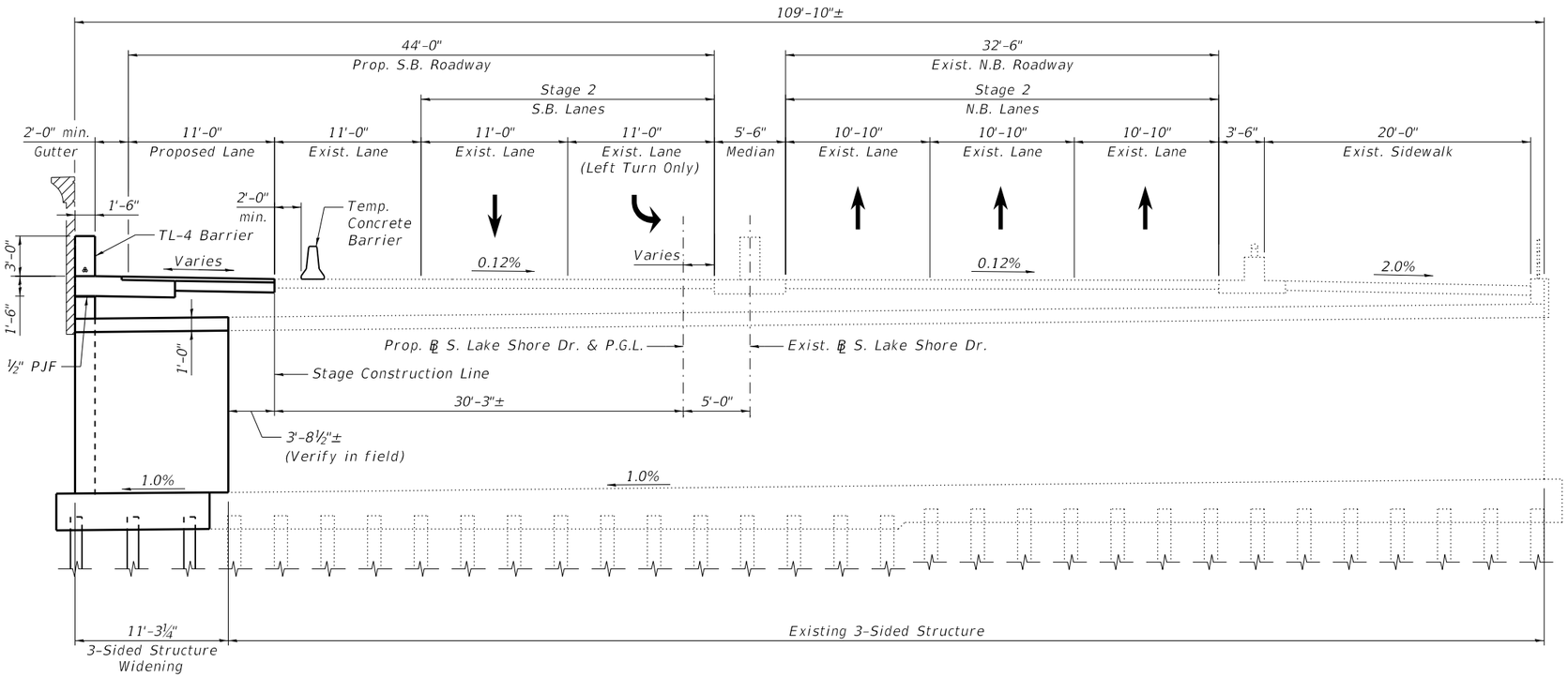
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				



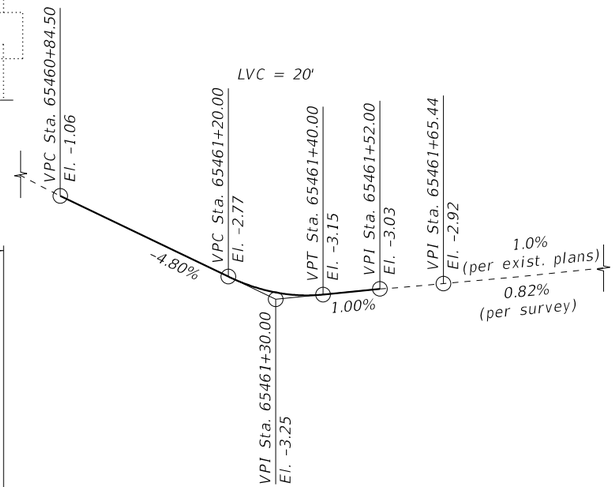
STAGE 2 REMOVAL - CROSS SECTION ALONG CENTERLINE OF 3-SIDED STRUCTURE

(Looking North)



STAGE 2 CONSTRUCTION - CROSS SECTION ALONG CENTERLINE OF 3-SIDED STRUCTURE

(Looking North)



PATH PROFILE GRADE

(Along ℄ Path)

NOTES:

1. See Maintenance of Traffic plans for additional details.
2. See Civil plans for proposed roadway widening, Temporary Concrete Barrier, and curb and gutter details.
3. PJF denotes Preformed Joint Filler.

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STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-6 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	981
CDOT PROJECT NO. B-7-203		SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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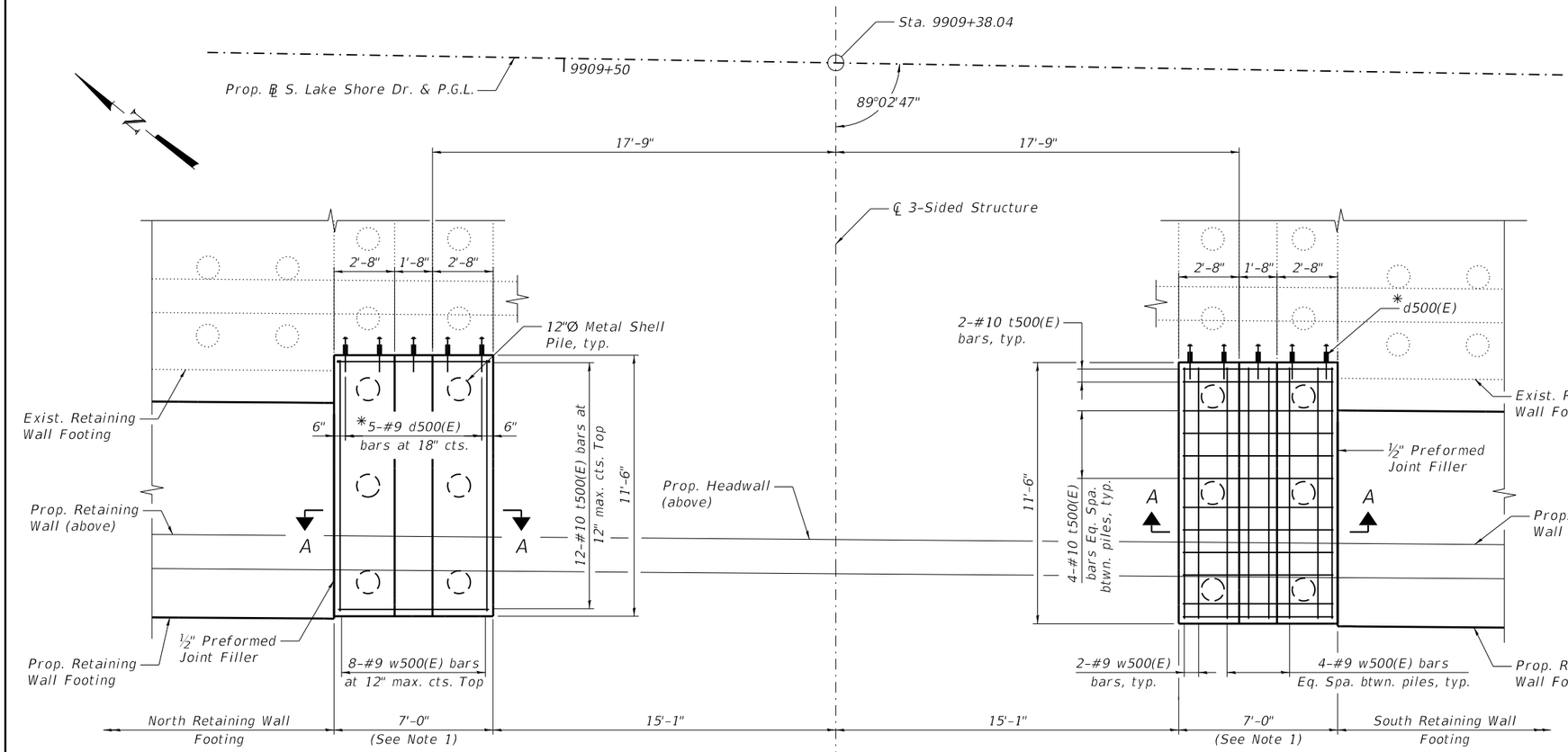
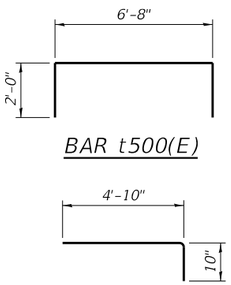


PLAN - ARCH FOOTING WIDENING



BAR t500(E)

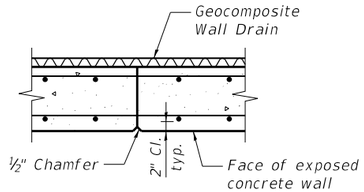
BAR n500(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d500(E)	10	#9	1'-6"	
n500(E)	20	#5	5'-8"	
t500(E)	48	#10	10'-8"	
w500(E)	40	#9	11'-2"	
High Performance Concrete Structures			Cu. Yd.	15.8
Reinforcement Bars, Epoxy Coated			Pound	3,890
Furnishing Metal Shell Piles 12"x0.250"			Foot	300
Driving Piles			Foot	300
Pile Shoes			Each	12

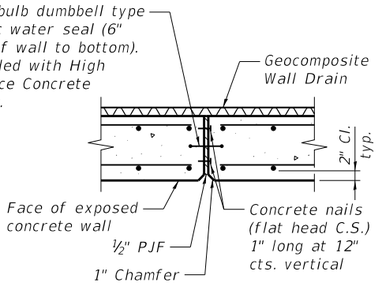
PILE DATA

Type: 12"Ø x 0.250" Metal Shell Pile w/ Pile Shoes
Nominal Required Bearing: 277 kips
Allowable Resistance Available: 92 kips
Est. Length: 25 ft.
No. Production Piles: 12
No. Test Piles: 0



CONSTRUCTION JOINT

(Architectural Precast Concrete Cladding not shown for clarity)

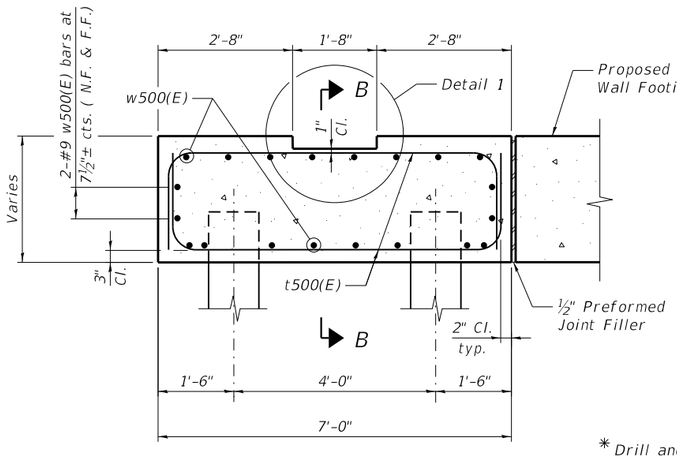


EXPANSION JOINT

(Architectural Precast Concrete Cladding not shown for clarity)

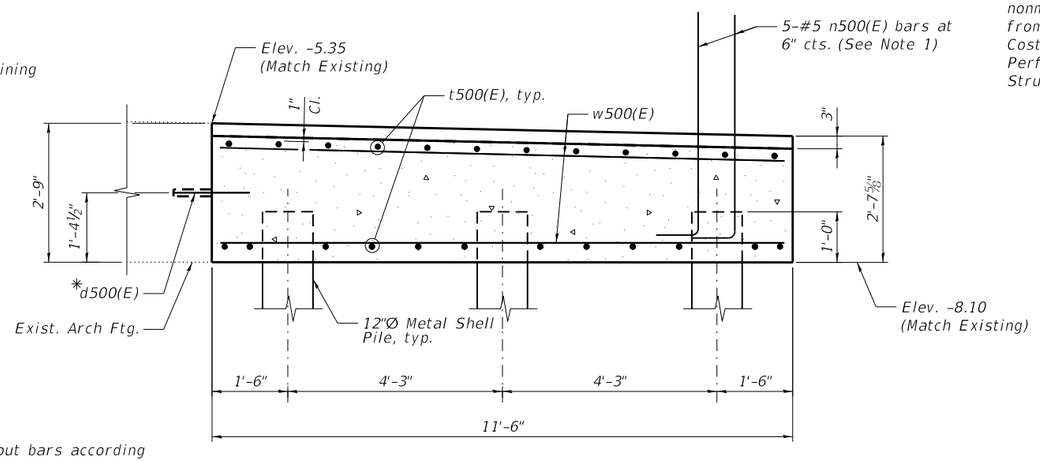
TOP REINFORCING

(Typical for both footings)



BOTTOM REINFORCING

(Typical for both footings)



* Drill and grout bars according to Article 584 of the Standard Specifications with a minimum embedment of 9". Cost included with High Performance Concrete Structures.

SECTION A-A

SECTION B-B

NOTES:

1. Arch Footing to Headwall dowels not shown in Plan for clarity. Work this sheet with Sheets SE-1 and SE-9 for placement of n500(E) bars. Avoid piles as necessary.
2. Detail 1 shown on Sheet SE-8.
3. N.F. denotes Near Face. F.F. denotes Far Face.

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FILE NAME = ABC-sht-6546-archftg.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

ARCH FOOTING DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-7 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	982
CDOT PROJECT NO. B-7-203		SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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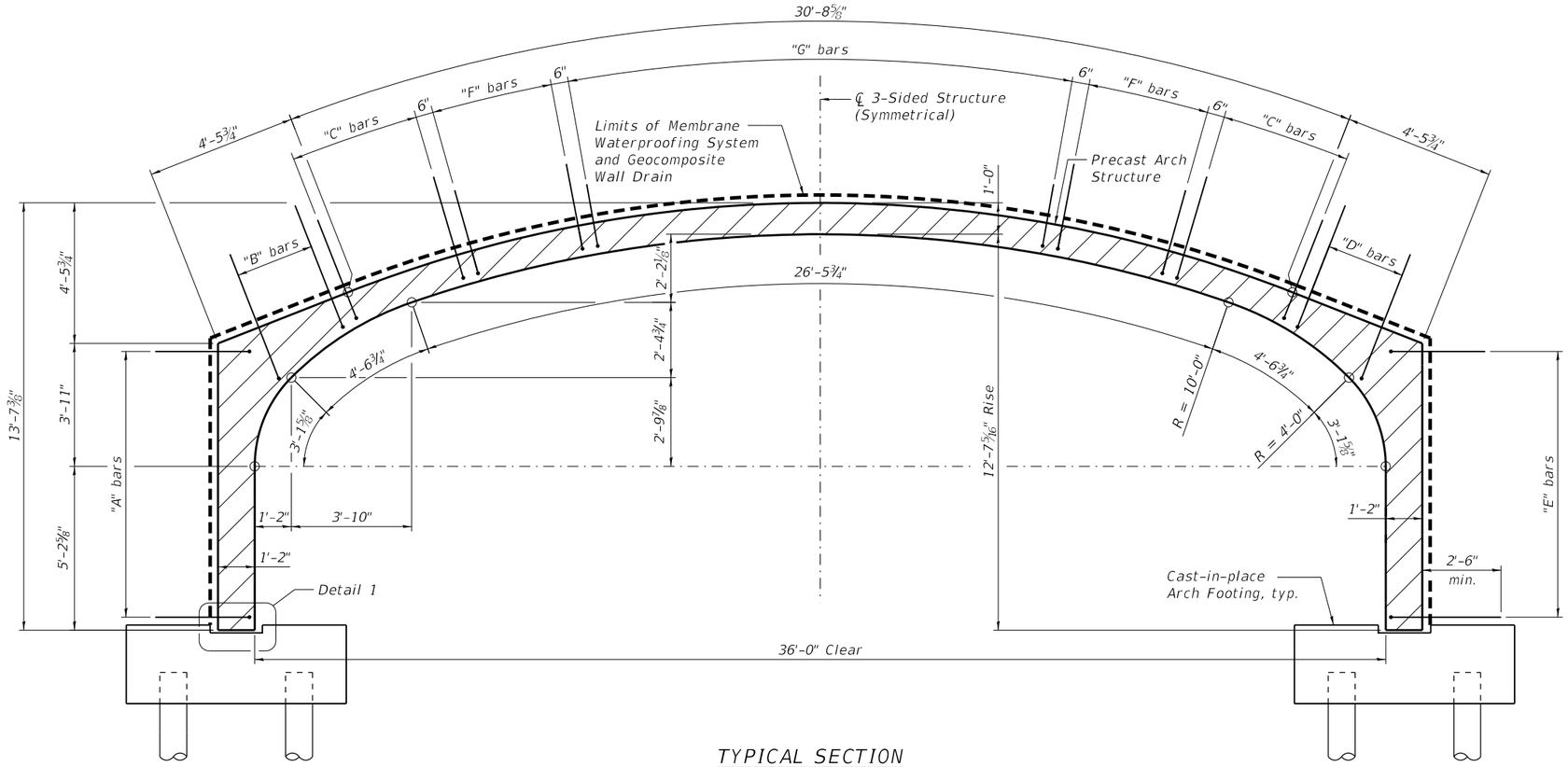
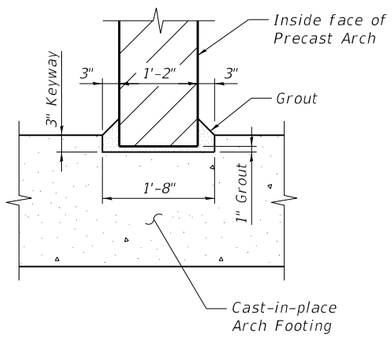
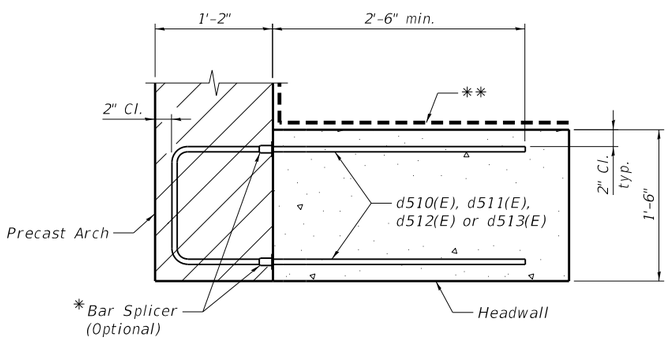


TYPICAL SECTION

(Dowel bars "A" through "G" only required at Headwall)



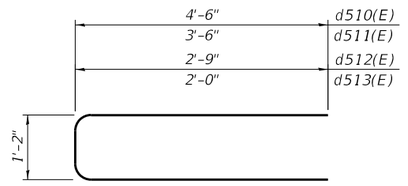
DETAIL 1



MECHANICAL SPLICE IN PRECAST ARCH DETAIL (OPTIONAL)

*Contractor may provide mechanical splicers as shown at no additional cost.

**Limits of Membrane Waterproofing System and Geocomposite Wall Drain.



BARS d510(E), d511(E), d512(E) & d513(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d510(E)	16	#5	10'-2"	⊂
d511(E)	54	#5	8'-2"	⊂
d512(E)	14	#5	6'-8"	⊂
d513(E)	30	#5	5'-2"	⊂
Geocomposite Wall Drain		Sq. Yd.	63	
Membrane Waterproofing System for Buried Structures		Sq. Yd.	63	
Three-Sided Precast Concrete Structures 36'x13'		Foot	12	
*Reinforcement Bars, Epoxy Coated		Pound	890	

*For Information Only. Cost included with Three-Sided Precast Concrete Structures.

"A" bars = 18-#5 d511(E) bars at 6" cts.
"B" bars = 8-#5 d510(E) bars at 6" cts.
"C" bars = 9-#5 d511(E) bars at 6" cts.
"D" bars = 8-#5 d510(E) bars at 6" cts.
"E" bars = 18-#5 d511(E) bars at 6" cts.
"F" bars = 7-#5 d512(E) bars at 6" cts.
"G" bars = 30-#5 d513(E) bars at 6" cts.

NOTES:

1. The Contractor shall submit a complete design of the Precast Arch Structure and all construction documents to the Engineer for review and approval prior to starting construction. All documents shall be prepared and sealed by an Illinois Licensed Structural Engineer.
2. The three-sided concrete structure shall be designed, manufactured, installed and load rated per the requirements of the Special Provision for "Three-Sided Precast Concrete Structure" except that the design shall be according to the AASHTO LFD Standard Specifications, as shown on the plans, and shall include the effects of unyielding foundation conditions for the sequence of construction anticipated.
3. Joint waterproofing, Membrane Waterproofing System and Geocomposite Wall Drain shall be applied to the outer surfaces of the arch and headwall below the proposed roadway prior to backfilling per the applicable portions of Sections 503, 504, 540.06 and 591 of the Standard Specifications and per the Special Provisions for "Membrane Waterproofing System for Buried Structures" and "Three-Sided Precast Concrete Structure". Waterproofing must also meet the minimum requirements of the three-sided structure manufacturer. Joint spacing between precast arches shall be per the manufacturer's recommendations and shall be ¼" minimum.
4. Work this drawing with Sheet SE-9, Headwall Details, for placing of reinforcing bars shown.
5. Painting of the underside of arch and other architectural elements on the underside of arch to be installed in a future contract.
6. See Electrical Lighting Plans for Precast Arch Lighting Details.

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FILE NAME = ABC-sht-6546-archdet.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
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	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

ARCH DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-8 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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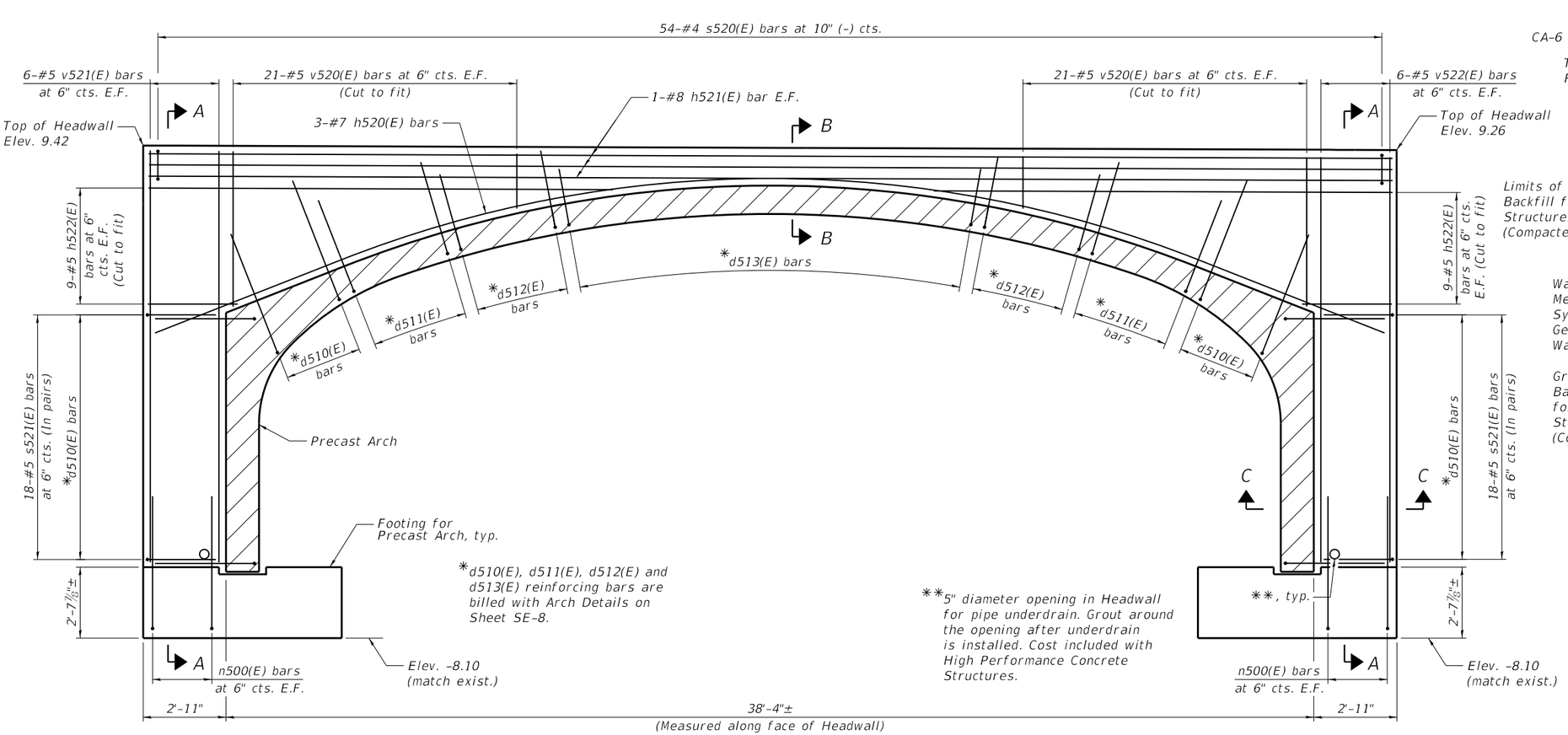
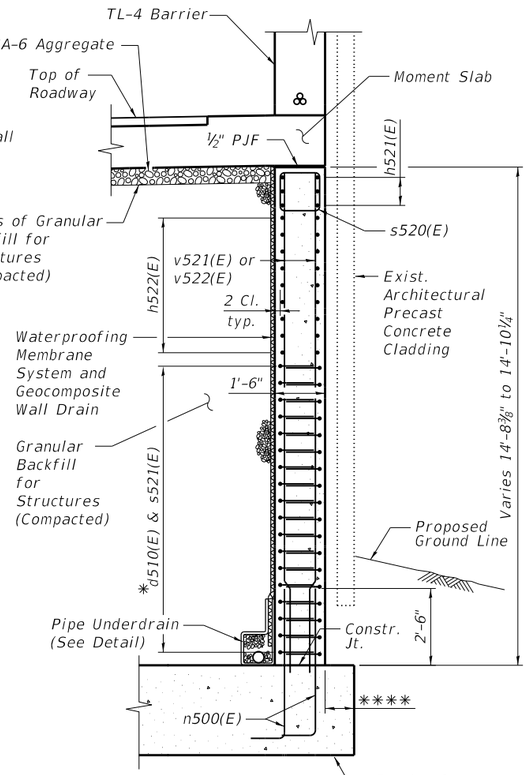
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

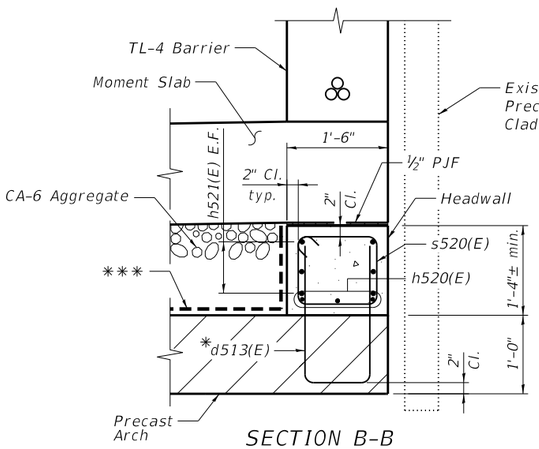


*d510(E), d511(E), d512(E) and d513(E) reinforcing bars are billed with Arch Details on Sheet SE-8.

**5" diameter opening in Headwall for pipe underdrain. Grout around the opening after underdrain is installed. Cost included with High Performance Concrete Structures.



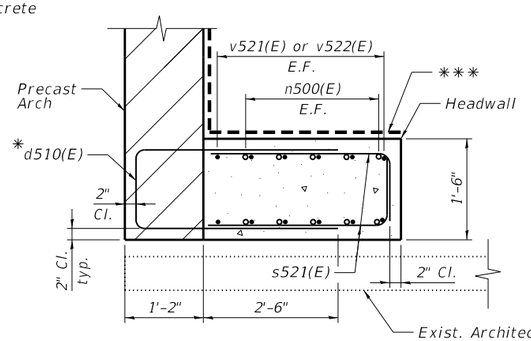
SECTION A-A



SECTION B-B

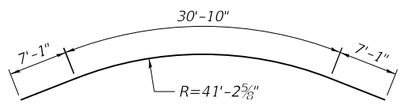
ELEVATION - HEADWALL

(Looking East)

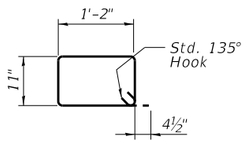


SECTION C-C

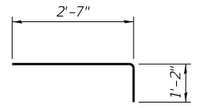
***Limits of Membrane Waterproofing System and Geocomposite Wall Drain



BAR h520(E)



BAR s520(E)



BAR s521(E)

****2'-0½" N. Footing (N. end)
1'-11⅞" N. Footing (S. end)
2'-1" S. Footing (N. end)
2'-0⅜" S. Footing (S. end)

NOTES:

1. Work this sheet with Sheet SE-8, Arch Details, for billing of bars d510(E), d511(E), d512(E) and d513(E).
2. See Special Provision for "Remove and Reinstall Architectural Precast Concrete Cladding".
3. E.F. denotes Each Face. PJF denotes Preformed Joint Filler
4. Piles in Footing for Precast Arch not shown for clarity.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h520(E)	3	#7	45'-0"	
h521(E)	6	#8	43'-10"	
h522(E)	36	#5	16'-7"	
s520(E)	54	#4	4'-11"	
s521(E)	72	#5	3'-9"	
v520(E)	84	#5	5'-4"	
v521(E)	12	#5	14'-7"	
v522(E)	12	#5	14'-5"	
Geocomposite Wall Drain		Sq. Yd.	22	
Membrane Waterproofing System for Buried Structures		Sq. Yd.	22	
High Perfomance Concrete Structures		Cu. Yd.	10.9	
Reinforcement Bars, Epoxy Coated		Pound	2,890	

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	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

HEADWALL DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-9 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	984
CDOT PROJECT NO. B-7-203		SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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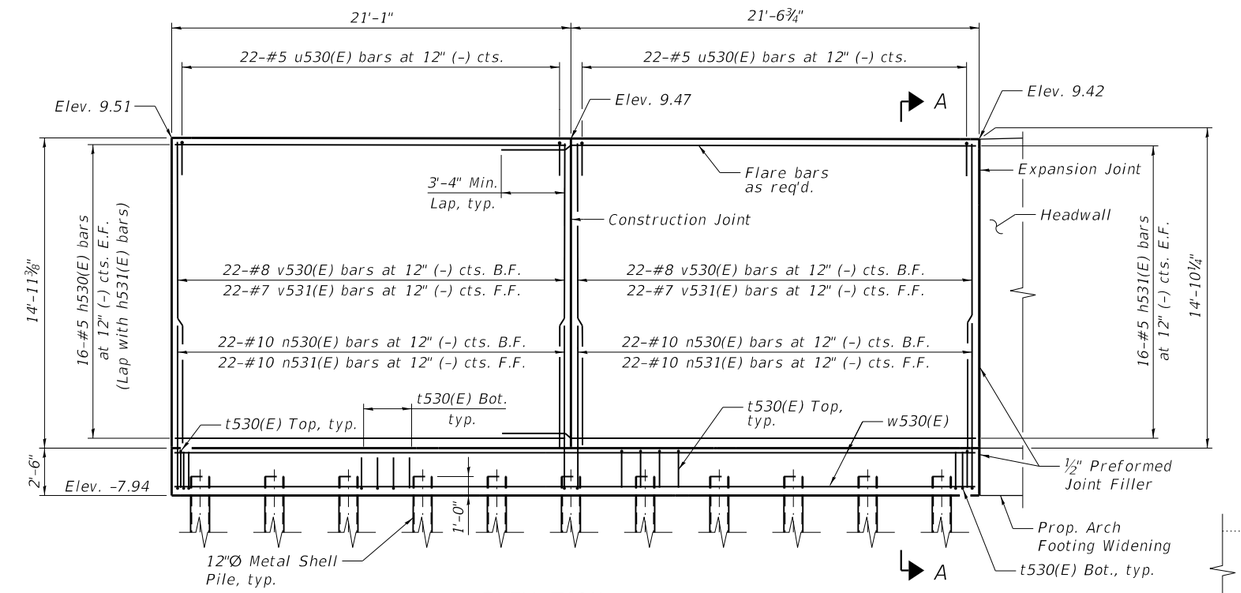
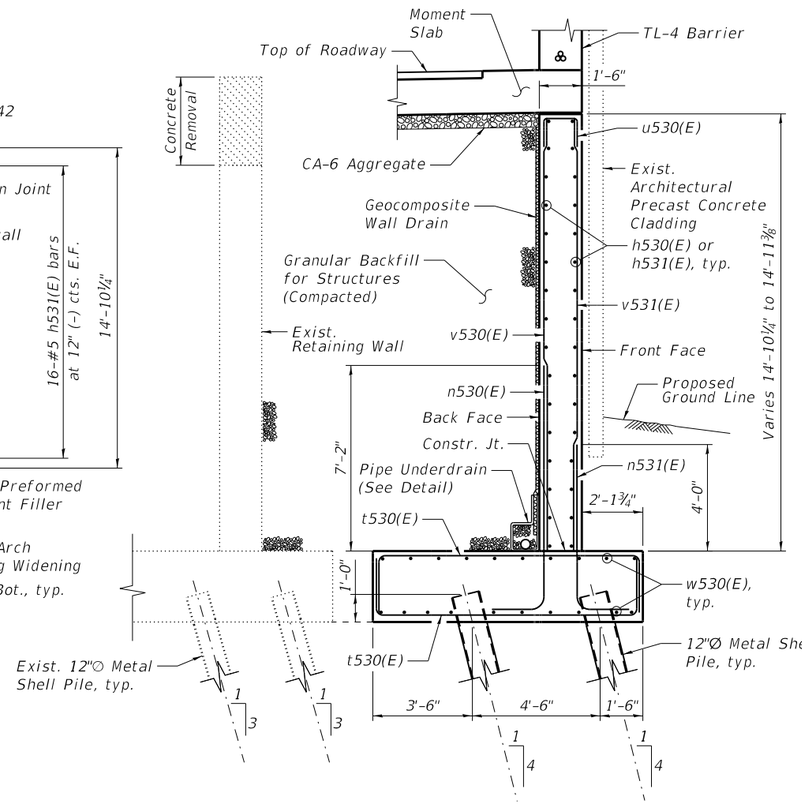


ELEVATION



SECTION A-A

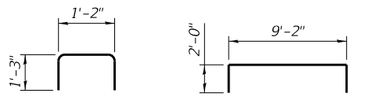
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h530(E)	32	#5	20'-9"	
h531(E)	32	#5	24'-11"	
n530(E)	44	#10	11'-1"	
n531(E)	44	#10	7'-11"	
t530(E)	88	#7	13'-2"	
u530(E)	44	#5	3'-8"	
v530(E)	44	#8	14'-8"	
v531(E)	44	#7	14'-8"	
w530(E)	20	#5	42'-3"	

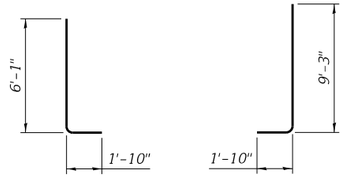
Geocomposite Wall Drain	Sq. Yd.	67
High Performance Concrete Structures	Cu. Yd.	72.8
Reinforcement Bars, Epoxy Coated	Pound	11,580
Furnishing Metal Shell Piles 12"x0.250"	Foot	525
Driving Piles	Foot	525
Test Pile Metal Shells	Each	1
Pile Shoes	Each	22

PILE DATA

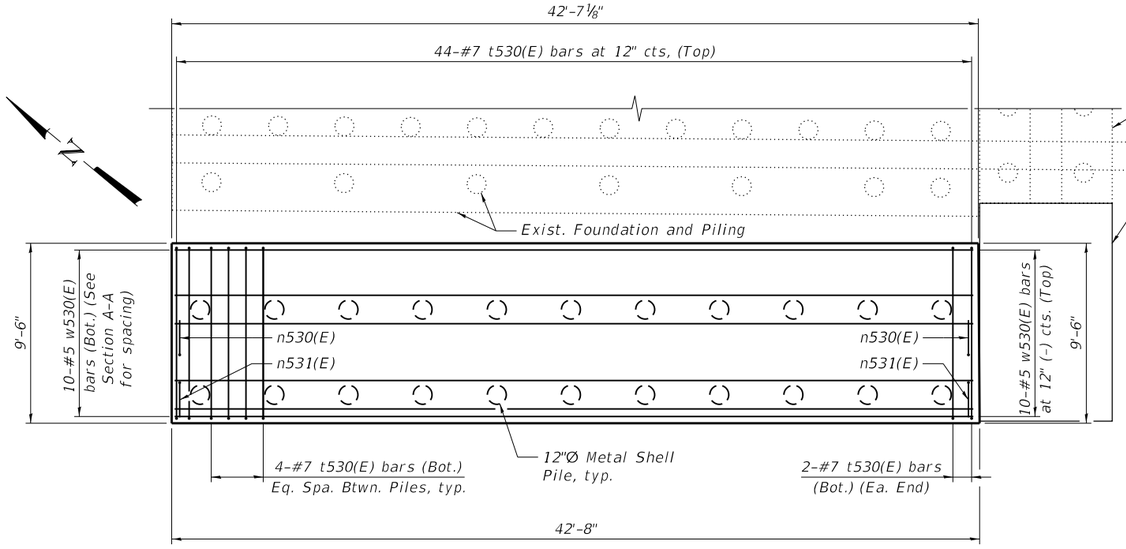
Type: 12"Ø x 0.250" Metal Shell Pile w/ Pile Shoes
Nominal Required Bearing: 277 kips
Allowable Resistance Available: 92 kips
Est. Length: 25 ft.
No. Production Piles: 21
No. Test Piles: 1



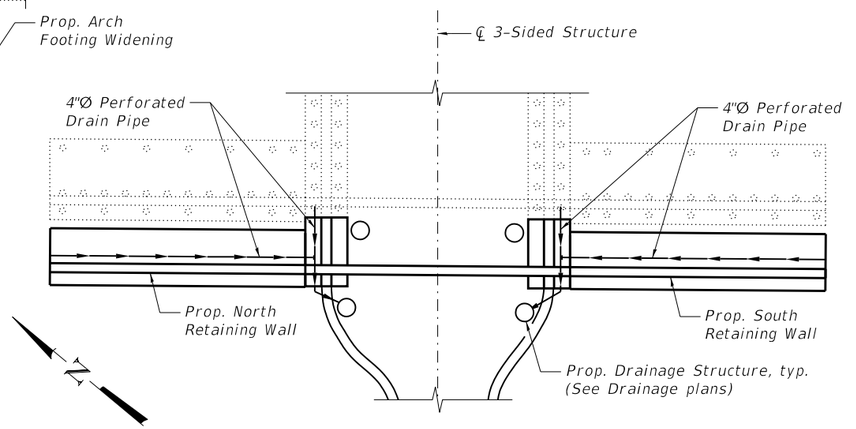
BAR u530(E) BAR t530(E)



BAR n531(E) BAR n530(E)



PLAN



PLAN - PIPE UNDERDRAIN LAYOUT

NOTE:
Existing underdrain connections to storm drainage system shall be maintained. Cost included with Pipe Underdrains for Structures, 4".

NOTES:

1. See Sheet SE-5 for Pile Layout.
2. See Sheet SE-11 for Pipe Underdrain Detail.
3. Work this sheet with Sheet SE-12, Barrier Details, for placing of d530(E) bars shown and placing of Anchor Rods for Light Poles.
4. F.F. denotes Front Face.
   B.F. denotes Back Face
   E.F. denotes Each Face.
5. For Construction Joint and Expansion Joint Details, see Sheet SE-7.

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FILE NAME = ABC-sht-6546-wingwall-001.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
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	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

NORTH RETAINING WALL AND FOOTING DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-10 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	985
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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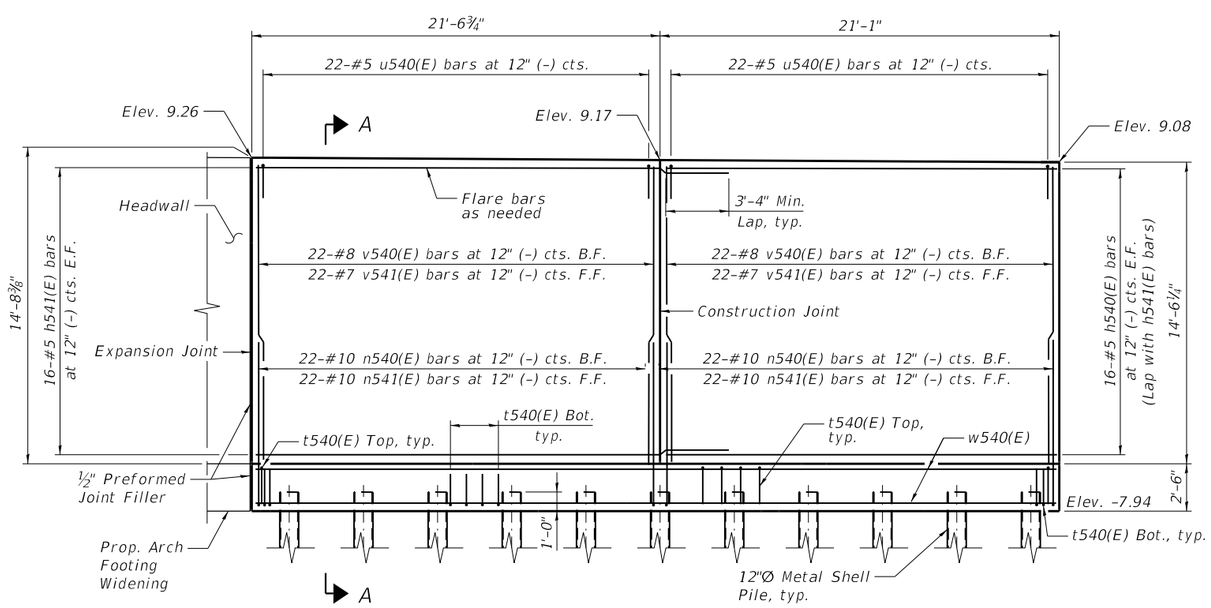
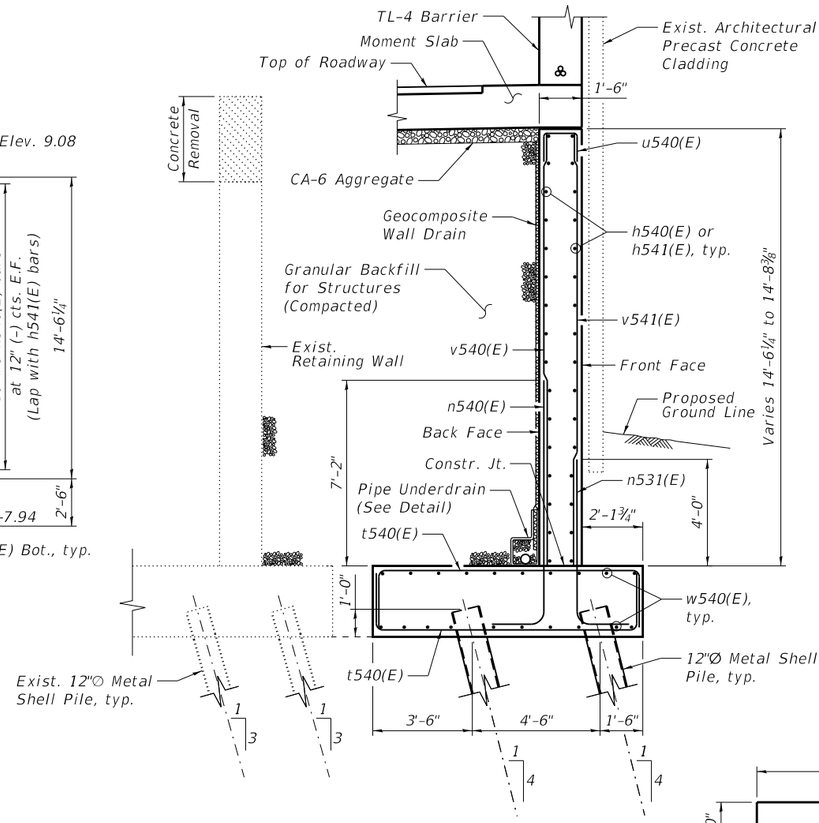


ELEVATION



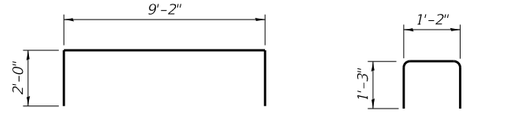
SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h540(E)	32	#5	20'-9"	
h541(E)	32	#5	24'-11"	
n540(E)	44	#10	11'-1"	
n541(E)	44	#10	7'-11"	
t540(E)	88	#7	13'-2"	
u540(E)	44	#5	3'-8"	
v540(E)	44	#8	14'-3"	
v541(E)	44	#7	14'-3"	
w540(E)	20	#5	42'-3"	
Geocomposite Wall Drain			Sq. Yd.	66
High Performance Concrete Structures			Cu. Yd.	72.1
Reinforcement Bars, Epoxy Coated			Pound	11,500
Furnishing Metal Shell Piles 12"x0.250"			Foot	525
Driving Piles			Foot	525
Test Pile Metal Shells			Each	1
Pile Shoes			Each	22

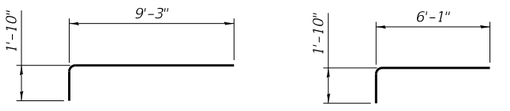
PILE DATA

Type: 12"Ø x 0.250" Metal Shell Pile w/ Pile Shoes
Nominal Required Bearing: 277 kips
Allowable Resistance Available: 92 kips
Est. Length: 25 ft.
No. Production Piles: 21
No. Test Piles: 1



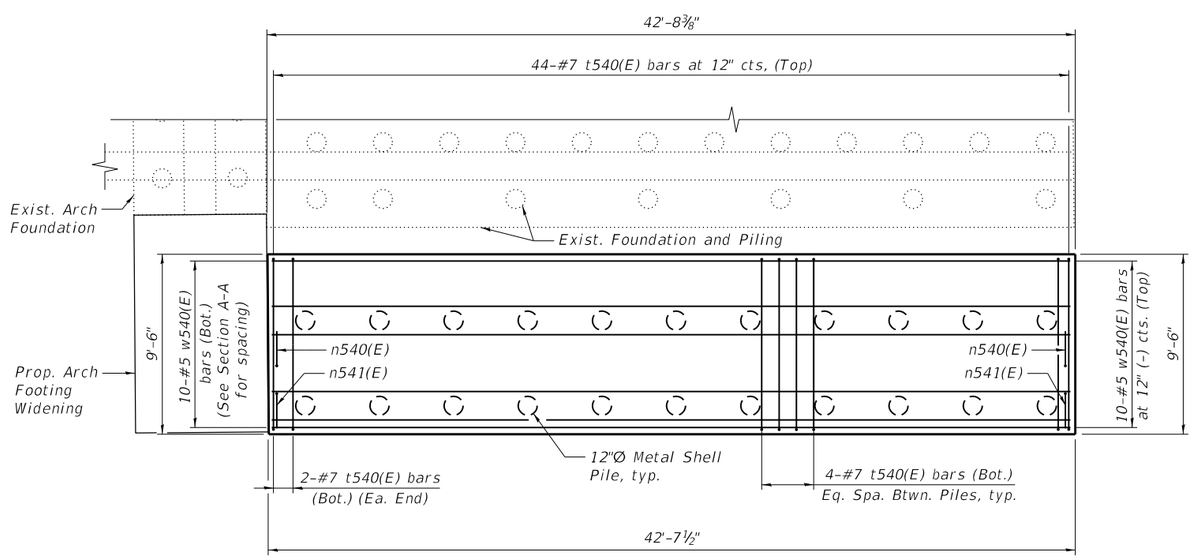
BAR t540(E)

BAR u540(E)

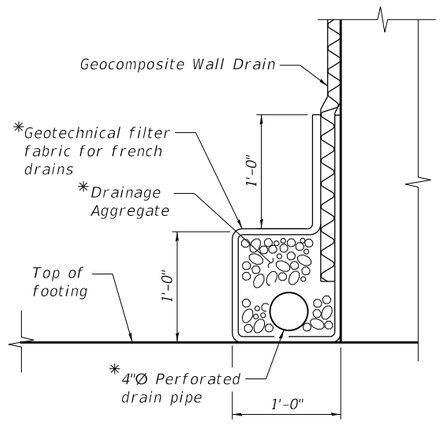


BAR n540(E)

BAR n541(E)



PLAN



PIPE UNDERDRAIN DETAIL

*Included in the cost of Pipe Underdrains for Structures, 4".

NOTES:

1. See Sheet SE-5 for Pile Layout.
2. Work this sheet with Sheet SE-12, Barrier Details, for placing of d530(E) bars shown and placing of Anchor Rods for Light Poles.
3. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
4. For Construction Joint and Expansion Joint Details, see Sheet SE-7.

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	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOUTH RETAINING WALL AND FOOTING DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-11 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	986
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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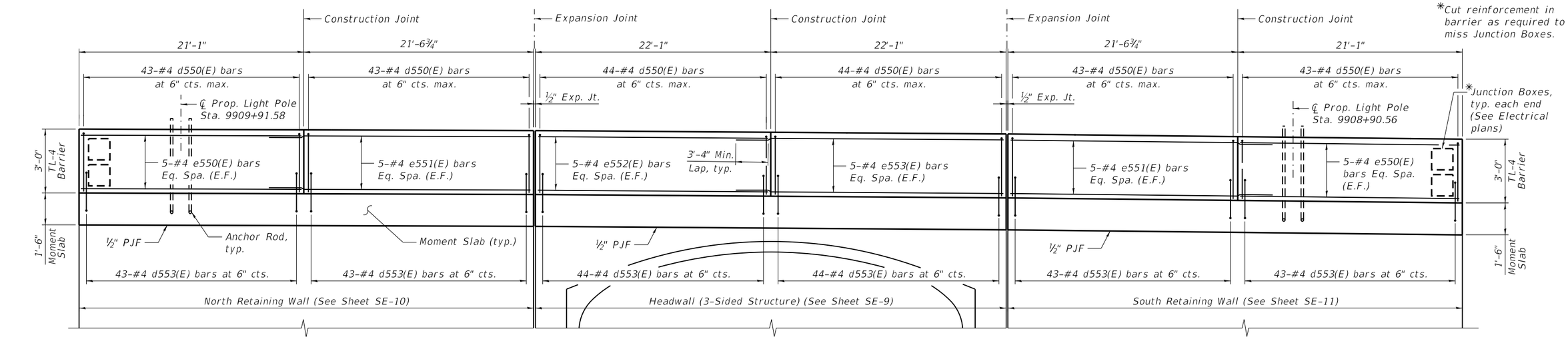
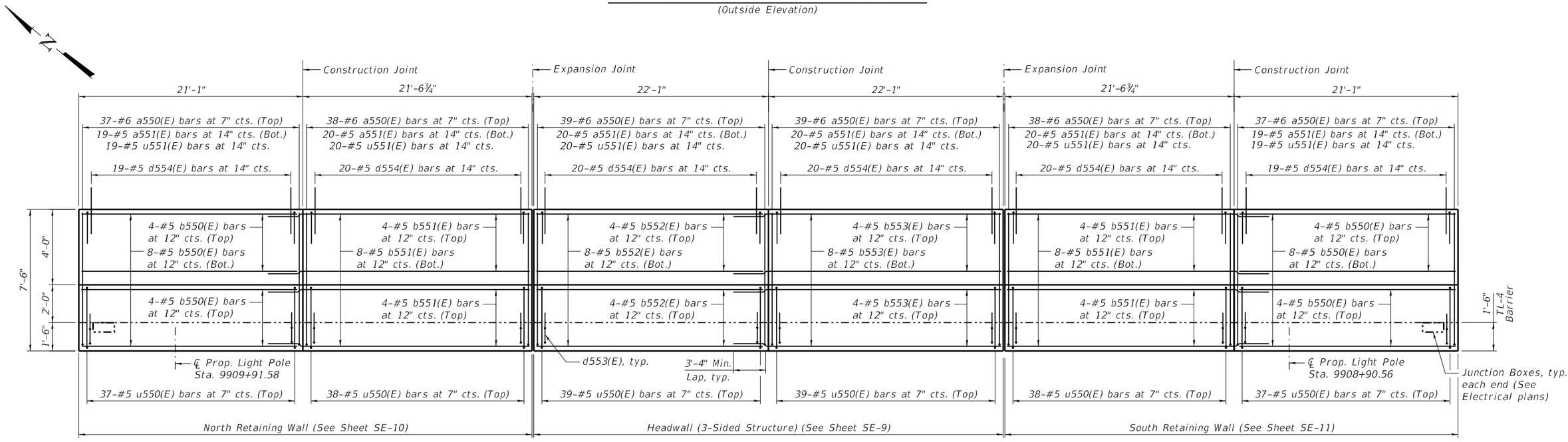


ELEVATION - MOMENT SLAB AND BARRIER

(Outside Elevation)



PLAN - MOMENT SLAB

NOTES:

1. See Sheet SE-13 for Typical Section thru barrier, moment slab and Section at Light Pole.
2. E.F. denotes Each Face.
   PJF denotes Preformed Joint Filler.
3. See Sheet SE-13 for Moment Slab and TL-4 Barrier details and Bill of Material.

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FILE NAME = ABC-sht-6546-momslab.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
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	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION
STRUCTURE NO. 016-6546
SHEET NO. SE-12 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	987
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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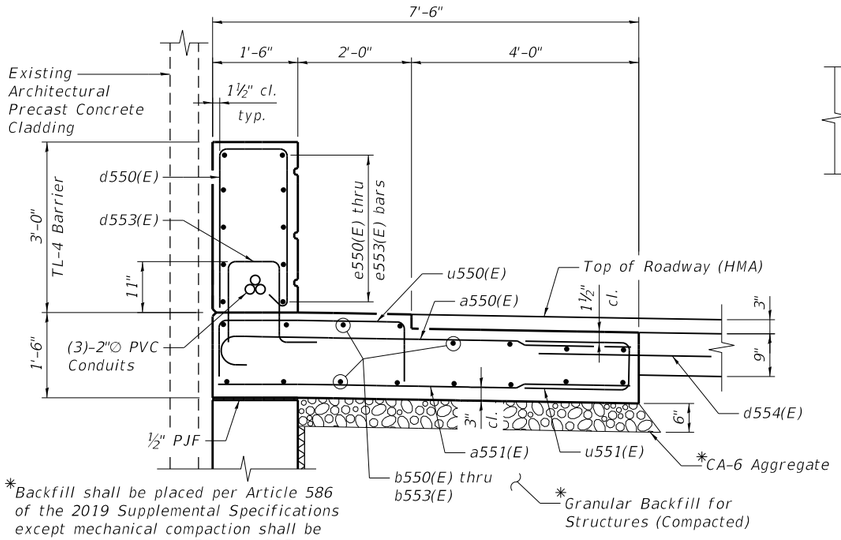
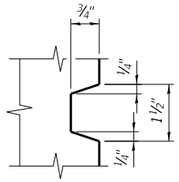
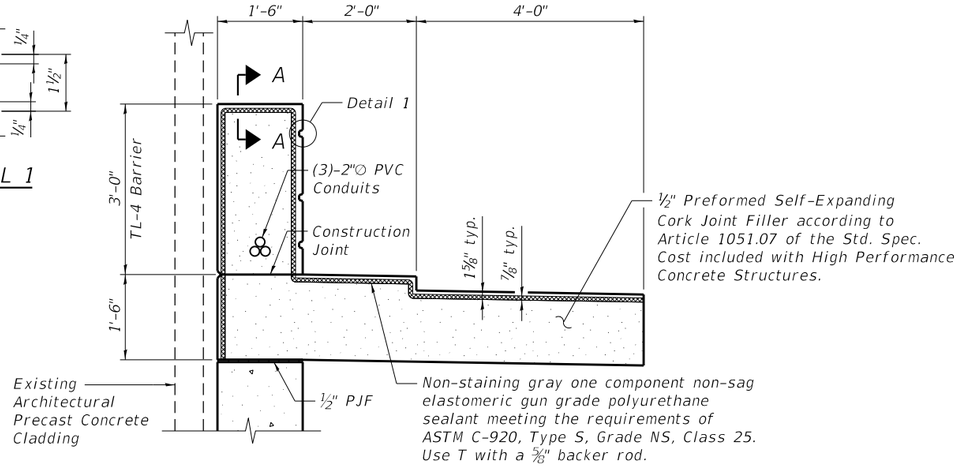


*Backfill shall be placed per Article 586 of the 2019 Supplemental Specifications except mechanical compaction shall be required per Articles 502 and 205 of the Standard Specifications. Cost of CA-6 aggregate specific layer below moment slab included with Granular Backfill for Structures.

TYPICAL SECTION



DETAIL 1

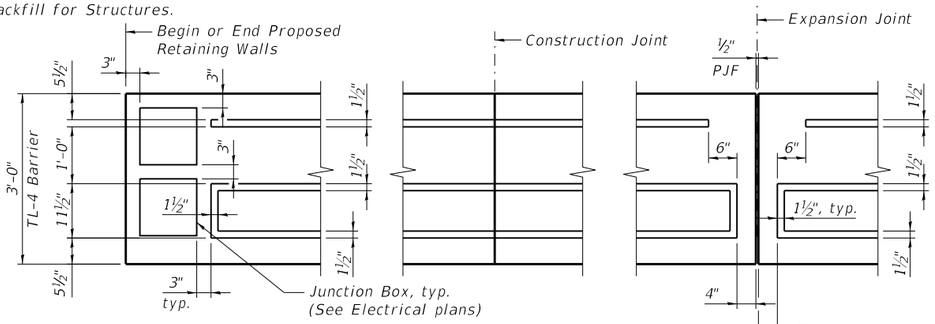


FULL HEIGHT EXPANSION JOINT DETAIL

BILL OF MATERIAL

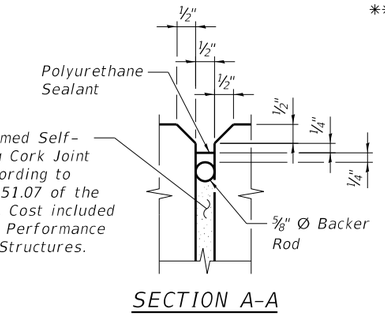
Bar	No.	Size	Length	Shape
a550(E)	228	#6	7'-10"	
a551(E)	118	#5	7'-2"	
b550(E)	32	#5	20'-9"	
b551(E)	32	#5	24'-11"	
b552(E)	16	#5	21'-9"	
b553(E)	16	#5	25'-5"	
d550(E)	260	#4	7'-1"	
d551(E)	10	#6	8'-5"	
d552(E)	6	#6	3'-9"	
d553(E)	260	#4	4'-5"	
d554(E)	118	#5	3'-0"	
e550(E)	20	#4	20'-9"	
e551(E)	20	#4	24'-11"	
e552(E)	10	#4	21'-9	
e553(E)	10	#4	25'-5"	
u550(E)	228	#5	5'-6"	
u551(E)	118	#5	4'-10"	
High Performance Concrete Structures		Cu. Yd.	70.8	
Protective Concrete Sealer		Sq. Yd.	94	
Reinforcement Bars, Epoxy Coated		Pound	11,230	

**Drill and grout bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

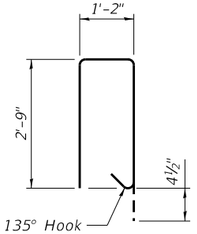


BARRIER NOTCH LAYOUT DETAIL

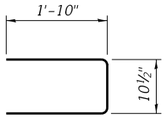
(See Detail 1, this sheet, for horizontal and vertical notch details.)



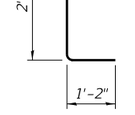
SECTION A-A



BAR d550(E)



BAR u551(E)



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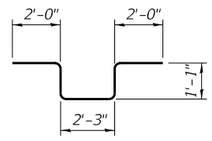
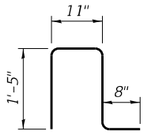


BAR d551(E)



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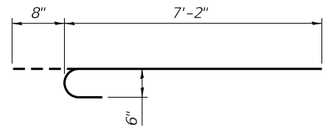
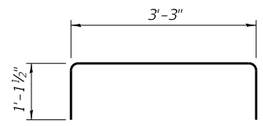
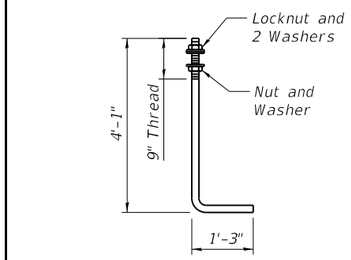


BAR a550(E)

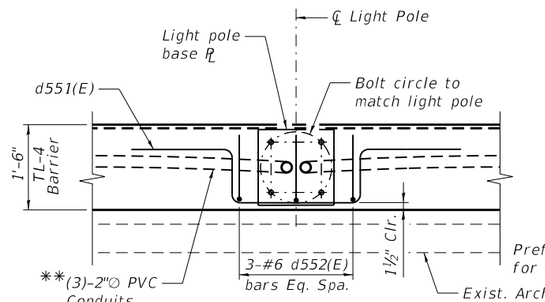


BAR u550(E)



ANCHOR ROD

(Diameter as specified for light poles, ASTM F1554, Grade 105, full length hot dip galvanized)

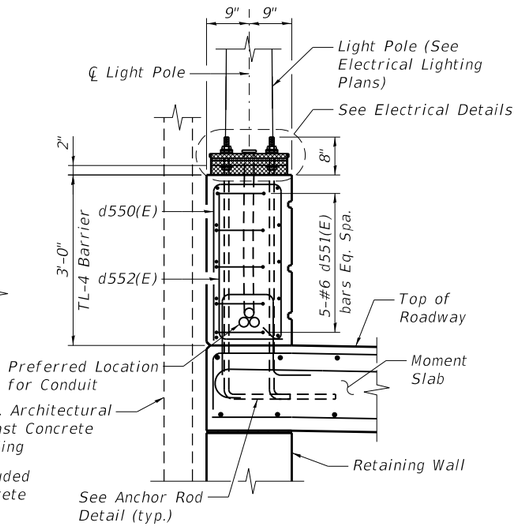


** Min. Clr. 1½" from all reinforcement

NOTE:

Cost of anchor rods is included with High Perfomance Concrete Structures.

PLAN - LIGHT POLE BASE



SECTION AT LIGHT POLE

NOTES:

1. See Electrical Lighting Plans for conduit, light pole and mounting details.
2. Cost of bond breaker, PJF, backer rod and sealant included with the cost of High Performance Concrete Structures.
3. Protective Concrete Sealer shall only be applied to the roadway face of barrier, top of barrier and top surface of 2'-0" gutter line of the proposed monent slab.
4. PJF denotes Preformed Joint Filler.

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FILE NAME = ABC-sht-6546-momdetails.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

MOMENT SLAB DETAILS AND BILL OF MATERIAL
STRUCTURE NO. 016-6546
SHEET NO. SE-13 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	988
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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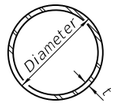
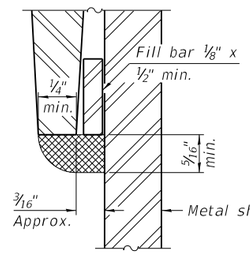
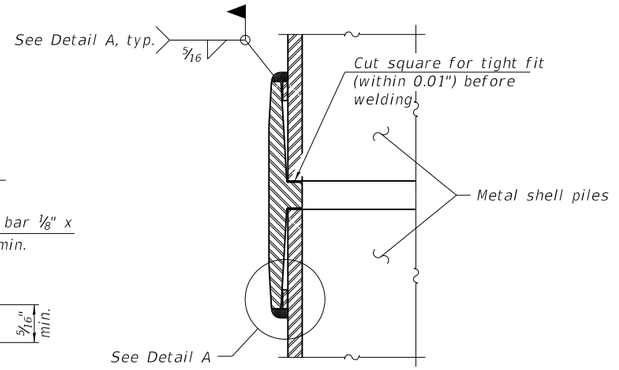


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3/ft.$)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470

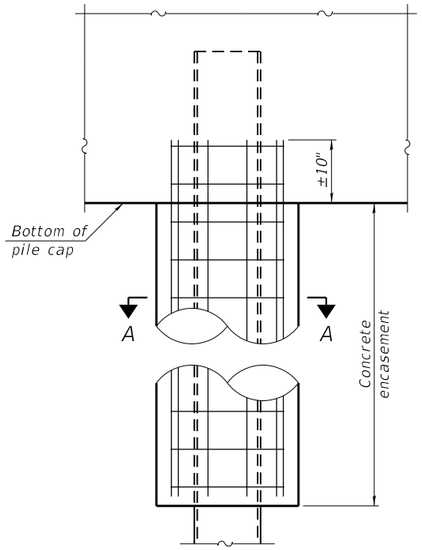


DETAIL A

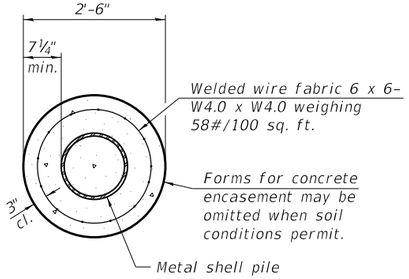


WELDED COMMERCIAL SPLICE

Notes:
The ⅛" x ½" min. fill bar may be constructed of 2 bars with a ⅛" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.



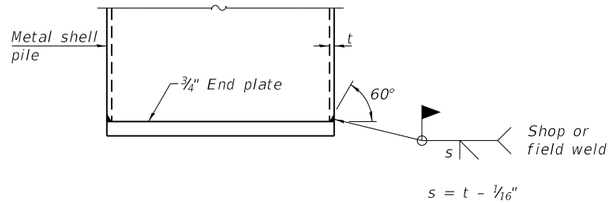
ELEVATION



SECTION A–A

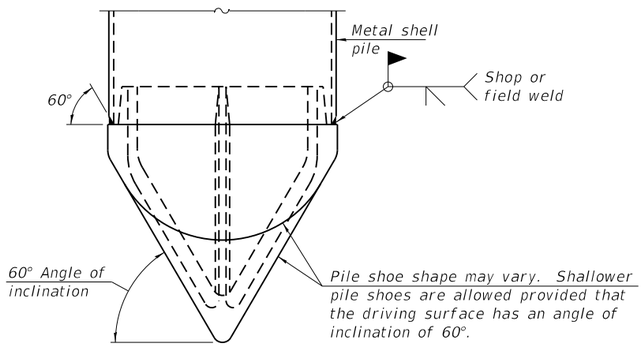
INDIVIDUAL PILE CONCRETE ENCASEMENT

(When specified)



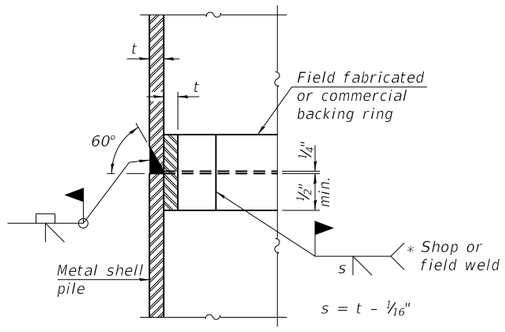
$s = t - 1/16"$

END PLATE ATTACHMENT



PILE SHOE ATTACHMENT

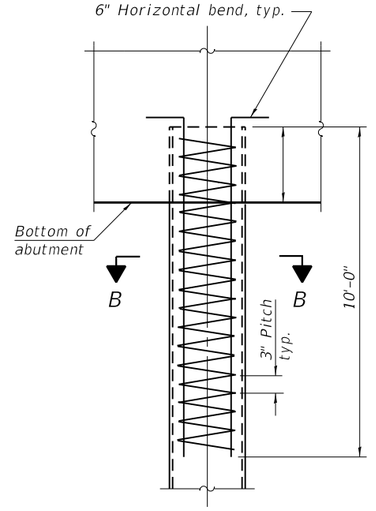
(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 80–50 or AASHTO M 103 Grade 65–35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).



$s = t - 1/16"$

COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



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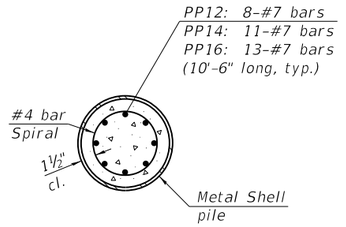

SECTION B–B

REINFORCEMENT AT ARCH FOOTINGS AND RETAINING WALLS

(Omit when concrete encasement is specified)

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

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F-MS 1-1-2020

FILE NAME = ABC-sht-6546-piledetail.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

METAL SHELL PILE DETAILS
STRUCTURE NO. 016–6546
SHEET NO. SE-14 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	989
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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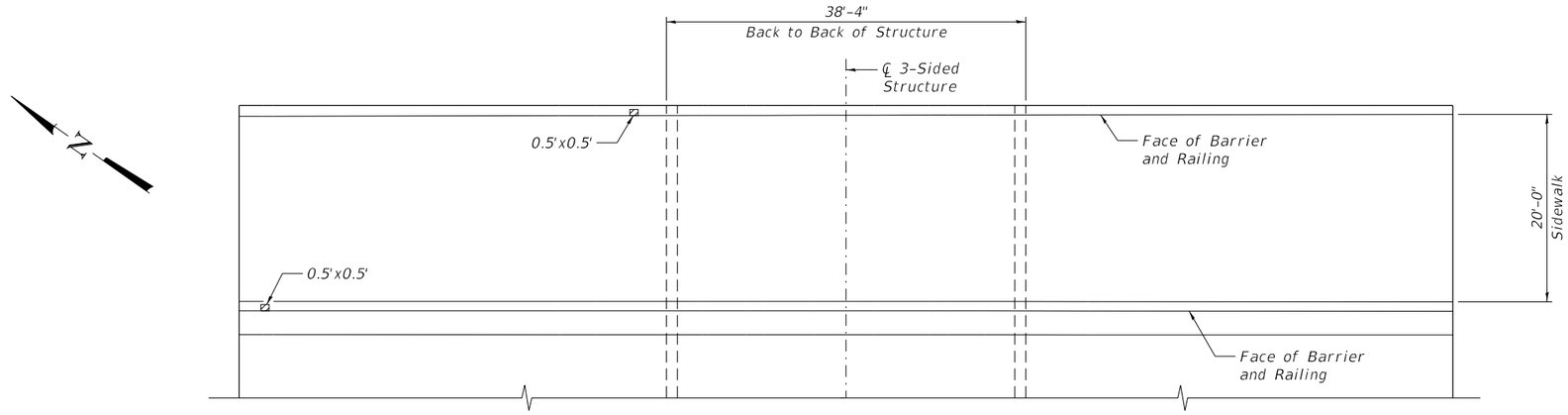
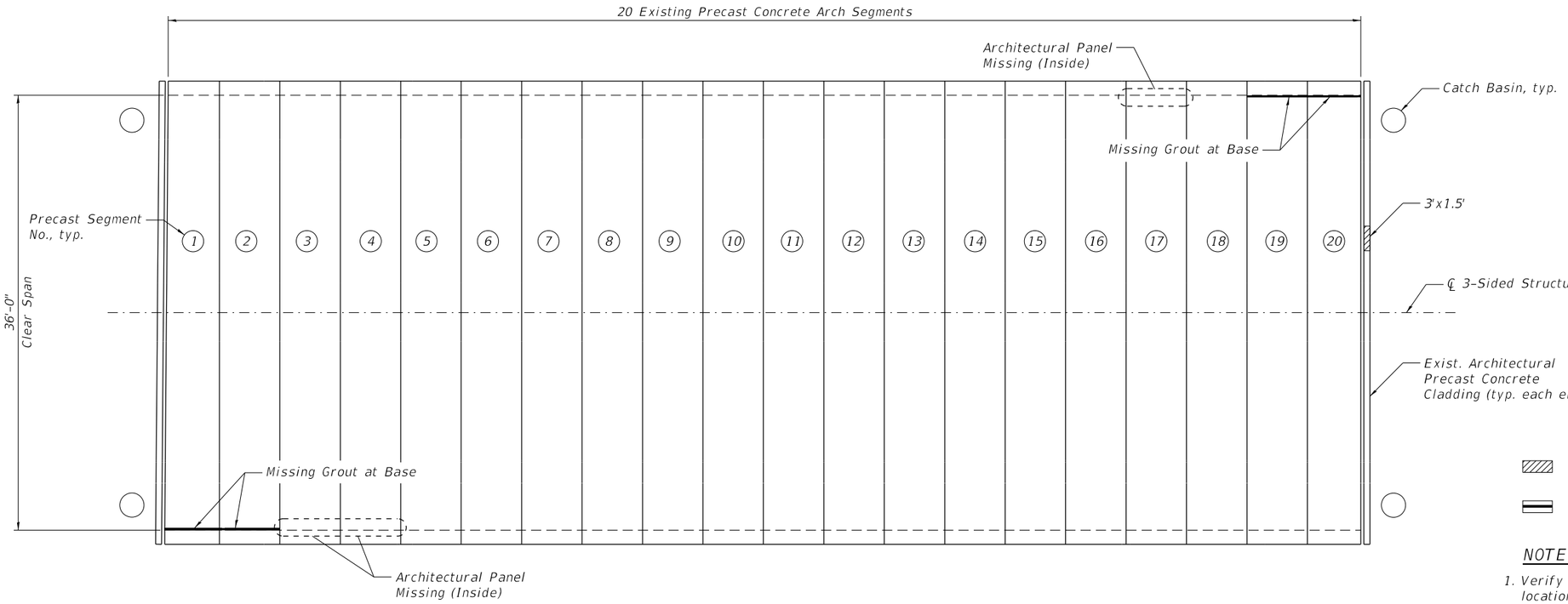


PLAN - TOP OF SIDEWALK AND BARRIER REPAIR DETAILS



PLAN - PRECAST ARCH AND CLADDING REPAIR DETAILS

LEGEND

- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
- Grout Repair (for Missing Non-shrink Grout)

NOTES:

1. Verify in the field during construction all locations that require repairs. All quantities of repairs shall be approved by the Engineer.
2. Wingwalls not shown for clarity as there were no repairs required at the time of inspection.
3. Match existing finish of architectural precast concrete cladding for structural repairs to cladding. Cost included with Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches).
4. In-kind replacement of missing Architectural Panels to be installed in a future contract.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	5
Grout Repair	Foot	19

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FILE NAME = ABC-sht-6546-repair.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING STRUCTURE REPAIR DETAILS
STRUCTURE NO. 016-6546
SHEET NO. SE-15 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	990
CDOT PROJECT NO. B-7-203		SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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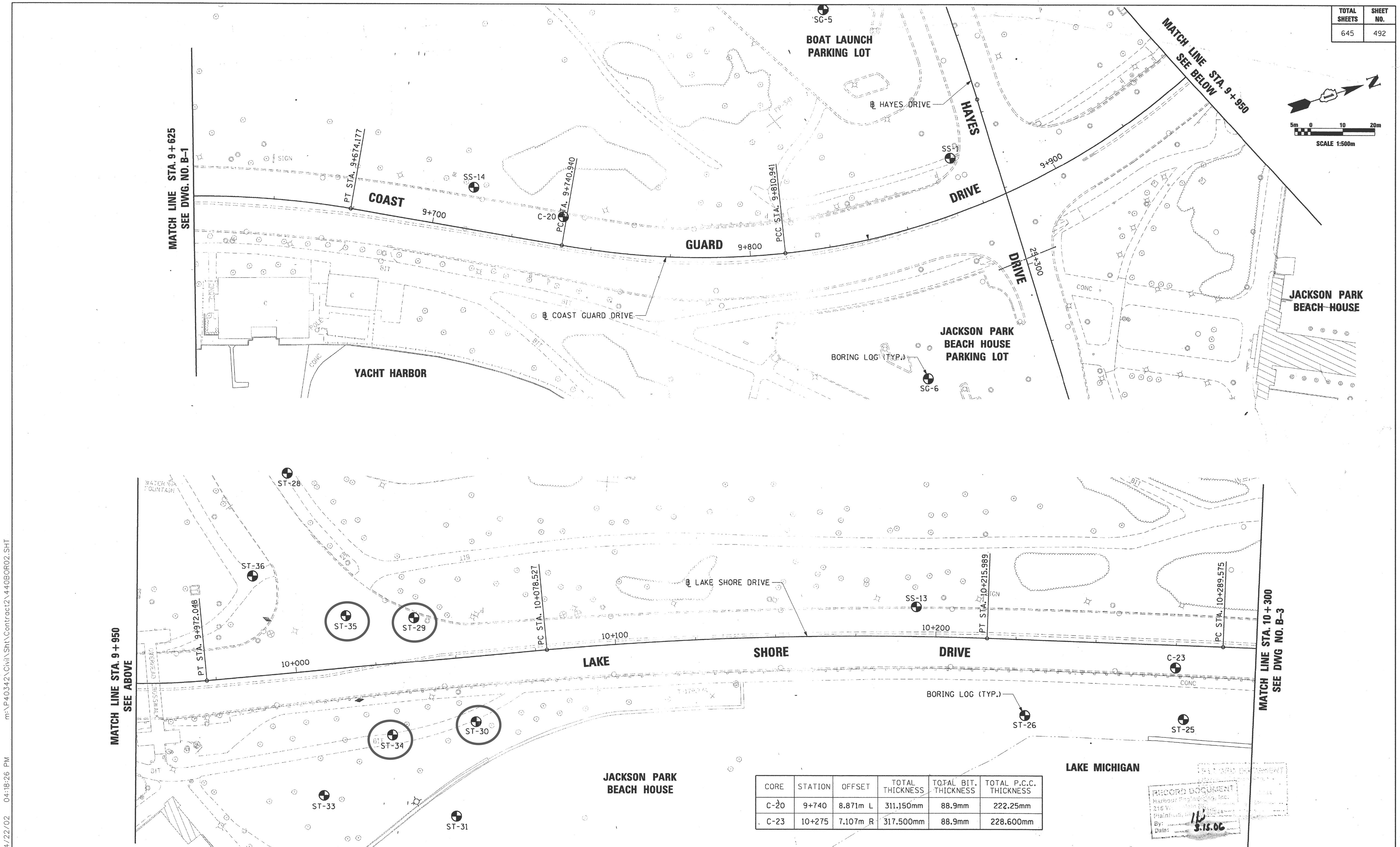
TOTAL SHEETS	SHEET NO.
645	492



CORE	STATION	OFFSET	TOTAL THICKNESS	TOTAL BIT. THICKNESS	TOTAL P.C.C. THICKNESS
C-20	9+740	8.871m L	311.150mm	88.9mm	222.25mm
C-23	10+275	7.107m R	317.500mm	88.9mm	228.600mm

DESIGN:	MD			
DRAWN:	LM			
CHECKED:	MD			
APPROVED:	SL			
DATE:	4/16/02			
SCALE:	1:500m			
FILE:		NO.	BY	DATE	DESCRIPTION
		REVISIONS		

KEY PLAN: JEFFERY, HAYES, MARQUETTE, CGD, LSD, 57TH

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

BORING LOCATION PLAN
COAST GUARD DRIVE / LAKE SHORE DRIVE

CONTRACT NO. 00-B0241-06-PV
DRAWING NO. B-2
PROJECT NO. B-1-440
1640091803

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CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

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	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

2001 SOIL BORING LOGS (1 OF 5)
STRUCTURE NO. 016-6546
SHEET NO. SE-16 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	991
CDOT PROJECT NO. B-7-203		SN 016-6546		
		ILLINOIS	FED. AID PROJECT	

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CDOT Project No. B-0-242 LOG OF BORING NO. ST-29 SHEET 1 OF 2

CLIENT: Consoer Townsend Envirodyne Engineers, Inc. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+038.099/ 13.843 LT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3
						GROUND SURFACE ELEVATION CCD 179.8	
0.3						Black, Topsoil, with gravel 179.5	
	1	SS	33			Brown, fine to medium SAND, trace silt and gravel, moist, loose (SP)	
1.5	2	SS	56				
	3	SS	56			-moist	
3.0	4	SS	56			-brown and gray, wet, very loose	
	5	SS	67			-gray, moist, medium dense	
3.8						176.0	
	6	SS	100			Gray, silty fine to medium SAND, wet, dense (SM)	
4.5							
	7	SS	100			-medium dense	

UNCONFINED COMPRESSIVE STRENGTH kPa
CALIBRATED PENETROMETER kPa
100 200 300 400 500 600 +
WATER ● CONTENT %
STANDARD "N" PENETRATION BLOWS/0.305 m.
10 20 30 40 50 60 +

Continued Next Page

WATER LEVEL OBSERVATIONS		
W.L.	2.6 WD	▽
W.L.	2.6 AB	▼
W.L.		▽

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

BORING STARTED	1/30/01
BORING COMPLETED	1/30/01
RIG 853	FOREMAN CJ
DRAWN MS	APPROVED RL

CDOT Project No. B-0-242 LOG OF BORING NO. ST-29 SHEET 2 OF 2

CLIENT: Consoer Townsend Envirodyne Engineers, Inc. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+038.099/ 13.843 LT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3
						(CONTINUED)	
6.1						173.7	
7.5	8	SS	100			Gray, SILTY CLAY, trace sand and gravel, saturated, very soft (CL)	
9.0	9	SS	100			-medium stiff	
9.1						170.6	
10.5						END OF BORING End of Boring @ 9.1 Meter	

UNCONFINED COMPRESSIVE STRENGTH kPa
CALIBRATED PENETROMETER kPa
100 200 300 400 500 600 +
WATER ● CONTENT %
STANDARD "N" PENETRATION BLOWS/0.305 m.
10 20 30 40 50 60 +

WATER LEVEL OBSERVATIONS		
W.L.	2.6 WD	▽
W.L.	2.6 AB	▼
W.L.		▽

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

BORING STARTED	1/30/01
BORING COMPLETED	1/30/01
RIG 853	FOREMAN CJ
DRAWN MS	APPROVED RL

CDOT Project No. B-0-242 LOG OF BORING NO. ST-30 SHEET 1 OF 3

CLIENT: Consoer Townsend Envirodyne Engineers, Inc. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+054.401/ 20.319 RT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3
						GROUND SURFACE ELEVATION CCD 180.0	
0.8						Black Topsoil 179.2	
	1	SS	100				
1.5	2	SS	100			Dark brown, SAND with clay and topsoil, moist, medium dense, Fill 178.4	
	3	SS	100			Brown, fine to medium SAND, trace silt, moist, loose (SP)	
3.0	4	SS	100			-brown and gray, wet	
	5	SS	100			-gray, medium dense	
4.5	6	SS	67				
	7	SS	100				

UNCONFINED COMPRESSIVE STRENGTH kPa
CALIBRATED PENETROMETER kPa
100 200 300 400 500 600 +
WATER ● CONTENT %
STANDARD "N" PENETRATION BLOWS/0.305 m.
10 20 30 40 50 60 +

Continued Next Page

WATER LEVEL OBSERVATIONS		
W.L.	2.6 WD	▽
W.L.	2.6 AB	▼
W.L.		▽

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

BORING STARTED	2/2/01
BORING COMPLETED	2/2/01
RIG 853	FOREMAN CJ
DRAWN MS	APPROVED RL

C★NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546-boring-002.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

2001 SOIL BORING LOGS (2 OF 5)
STRUCTURE NO. 016-6546
SHEET NO. SE-17 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	992
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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CDOT Project No. B-0-242 LOG OF BORING NO. ST-30 SHEET 2 OF 3

CLIENT: Consoer Townsend Envirodyne Engineers, Inc. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+054.401/ 20.319 RT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3	UNCONFINED COMPRESSIVE STRENGTH kPa / CALIBRATED PENETROMETER kPa / WATER ● CONTENT % / STANDARD "N" PENETRATION BLOWS/0.305 m.
						(CONTINUED)		100 200 300 400 500 600 + / 10 20 30 40 50 60 +
6.1						173.9		
7.5	8	SS		100		Gray, SILTY CLAY, trace sand and gravel, damp, very soft (CL)		
9.0	9	SS		100		-medium stiff		
10.5	10	SS		100				
						-very stiff		

Continued Next Page

WATER LEVEL OBSERVATIONS			
W.L.	2.6 WD	BORING STARTED	2/2/01
W.L.	2.6 AB	BORING COMPLETED	2/2/01
W.L.		RIG 853	FOREMAN CJ
		DRAWN MS	APPROVED RL

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

CDOT Project No. B-0-242 LOG OF BORING NO. ST-30 SHEET 3 OF 3

CLIENT: Consoer Townsend Envirodyne Engineers, Inc. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+054.401/ 20.319 RT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3	UNCONFINED COMPRESSIVE STRENGTH kPa / CALIBRATED PENETROMETER kPa / WATER ● CONTENT % / STANDARD "N" PENETRATION BLOWS/0.305 m.
						(CONTINUED)		100 200 300 400 500 600 + / 10 20 30 40 50 60 +
	11	SS		100		Gray, SILTY CLAY, trace sand and gravel, damp, very stiff (CL)		
13.5	12	SS		100		-hard		
13.7						166.3		
						END OF BORING End of Boring @ 13.7 Meter		

WATER LEVEL OBSERVATIONS			
W.L.	2.6 WD	BORING STARTED	2/2/01
W.L.	2.6 AB	BORING COMPLETED	2/2/01
W.L.		RIG 853	FOREMAN CJ
		DRAWN MS	APPROVED RL

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

CDOT Project No. B-0-242 LOG OF BORING NO. ST-34 SHEET 1 OF 2

CLIENT: Consoer Townsend Envirodyne Engineers, Inc. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+028.121/ 22.108 RT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3	UNCONFINED COMPRESSIVE STRENGTH kPa / CALIBRATED PENETROMETER kPa / WATER ● CONTENT % / STANDARD "N" PENETRATION BLOWS/0.305 m.
						GROUND SURFACE ELEVATION CCD 179.9		100 200 300 400 500 600 + / 10 20 30 40 50 60 +
	1	SS		78		Black Topsoil		
0.8						179.1		
1.5	2	SS		100		Black, Sand, trace gravel, topsoil, loose, FIll		
1.5						178.4		
	3	SS		100		Brown and gray, fine to medium SAND, trace gravel and silt, moist, medium, dense (SP)		
3.0	4	SS		100		-gray, wet, loose		
	5	SS		100		-dense		
4.5	6	SS		100		4.6 175.3		
						Gray, silty SAND, trace gravel, wet, medium dense (SP-SM)		
	7	SS		100				

Continued Next Page

WATER LEVEL OBSERVATIONS			
W.L.	2.6 WD	BORING STARTED	2/2/01
W.L.	2.6 AB	BORING COMPLETED	2/2/01
W.L.		RIG 853	FOREMAN CJ
		DRAWN MS	APPROVED RL

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

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CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546-boring-003.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

2001 SOIL BORING LOGS (3 OF 5)
STRUCTURE NO. 016-6546
SHEET NO. SE-18 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	993
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS	FED. AID PROJECT			

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CDOT Project No. B-0-242 LOG OF BORING NO. ST-34 SHEET 2 OF 2

CLIENT: Consoer Townsend Envirodyne Engineers, Inc. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+028.121/ 22.108 RT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3
						(CONTINUED)	
						6.1 173.8	
7.5	8	SS	100			Gray, SILTY CLAY, trace sand and gravel, saturated, very soft (CL)	
9.0	9	SS	100			-soft	
						9.1 170.8	
						END OF BORING End of Boring @ 9.1 Meter	
10.5							

UNCONFINED COMPRESSIVE STRENGTH kPa

CALIBRATED PENETROMETER kPa

100 200 300 400 500 600 +

WATER ● CONTENT %

STANDARD "N" PENETRATION BLOWS/0.305 m.

10 20 30 40 50 60 +

WATER LEVEL OBSERVATIONS		
W.L.	2.6 WD	▽
W.L.	2.6 AB	▼
W.L.		▽

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

BORING STARTED	2/2/01
BORING COMPLETED	2/2/01
RIG B53	FOREMAN CJ
DRAWN MS	APPROVED RL

CDOT Project No. B-0-242 LOG OF BORING NO. ST-35 SHEET 1 OF 4

CLIENT: Consoer Townsend Envirodyne Engineers, Inc. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+017.077/ 16.427 LT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3
						GROUND SURFACE ELEVATION CCD 179.8	
						0.3 Asphalt Pavement and Gravel Base 179.5	
	1	SS	44			0.8 Gray, SAND & GRAVEL, moist, very dense, Fill 179.1	
1.5	2	SS	100			Brown, fine to medium SAND, trace gravel and silt, moist, medium dense (SP)	
	3	SS	100			-loose	
3.0	4	SS	83			-gray and brown, wet, loose ▼	
	5	SS	0			-no recovery	
4.5	6	SS	89			-medium dense	
	7	SS	100			-gray, some silt, dense	

Continued Next Page

UNCONFINED COMPRESSIVE STRENGTH kPa

CALIBRATED PENETROMETER kPa

100 200 300 400 500 600 +

WATER ● CONTENT %

STANDARD "N" PENETRATION BLOWS/0.305 m.

10 20 30 40 50 60 +

WATER LEVEL OBSERVATIONS		
W.L.	2.7 WD	▽
W.L.	2.7 AB	▼
W.L.		▽

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

BORING STARTED	2/1/01
BORING COMPLETED	2/1/01
RIG B53	FOREMAN CJ
DRAWN MS	APPROVED RL

CDOT Project No. B-0-242 LOG OF BORING NO. ST-35 SHEET 2 OF 4

CLIENT: Consoer Townsend Envirodyne Engineers. | PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 10+017.077/ 16.427 LT | LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/m3
						(CONTINUED)	
						6.1 173.7	
7.5	8	SS	100			Gray, SILTY CLAY, trace sand and gravel, damp, very soft (CL)	
9.0	9	SS	100			-medium stiff	
10.5	10	SS	100			-stiff	
						-very stiff	

Continued Next Page

UNCONFINED COMPRESSIVE STRENGTH kPa

CALIBRATED PENETROMETER kPa

100 200 300 400 500 600 +

WATER ● CONTENT %

STANDARD "N" PENETRATION BLOWS/0.305 m.

10 20 30 40 50 60 +

WATER LEVEL OBSERVATIONS		
W.L.	2.7 WD	▽
W.L.	2.7 AB	▼
W.L.		▽

Ground Engineering Consultants, Inc.
350 Pfingsten Road, Suite 106
Northbrook, IL 60062
(847) 559-0085 Fax (847) 559-0181

BORING STARTED	2/1/01
BORING COMPLETED	2/1/01
RIG B53	FOREMAN CJ
DRAWN MS	APPROVED RL

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546-boring-004.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

2001 SOIL BORING LOGS (4 OF 5)
STRUCTURE NO. 016-6546
SHEET NO. SE-19 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	994
CDOT PROJECT NO. B-7-203		SN 016-6546		
		ILLINOIS FED. AID PROJECT		

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CDOT Project No. B-0-242 LOG OF BORING NO. ST-35 SHEET 3 OF 4

CLIENT: Consoer Townsend Envirodyne Engineers. PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 0+017.077/ 16.427 L LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/M3	UNCONFINED COMPRESSIVE STRENGTH kPa / CALIBRATED PENETROMETER kPa (100 200 300 400 500 600 +) / WATER ● CONTENT % / STANDARD "N" PENETRATION BLOWS/0.305 m. (10 20 30 40 50 60 +)
						(CONTINUED)		
	11	SS		94		Gray, SILTY CLAY, trace sand and gravel, very stiff (CL)		
13.5	12	SS		67		-hard		
15.0	13	SS		100				
16.5	14	SS		100				

Continued Next Page

WATER LEVEL OBSERVATIONS		Ground Engineering Consultants, Inc.	BORING STARTED 2/1/01	
W.L.	2.7 WD	350 Pfingsten Road, Suite 106	BORING COMPLETED 2/1/01	
W.L.	2.7 AB	Northbrook, IL 60062	RIG B53	FOREMAN CJ
W.L.		(847) 559-0085 Fax (847) 559-0181	DRAWN MS	APPROVED RL

CDOT Project No. B-0-242 LOG OF BORING NO. ST-35 SHEET 4 OF 4

CLIENT: Consoer Townsend Envirodyne Engineers. PROJECT: Lake Shore Drive Reconstruction, Chicago Department of Transportation

STATION: and OFFSET (m): 0+017.077/ 16.427 L LOCATION: Jackson Park Section, Chicago

DEPTH BELOW GROUND SURFACE	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	% RECOVERY	GRAPHIC LOG	DESCRIPTION OF MATERIAL	UNIT DRY WT. KN/M3	UNCONFINED COMPRESSIVE STRENGTH kPa / CALIBRATED PENETROMETER kPa (100 200 300 400 500 600 +) / WATER ● CONTENT % / STANDARD "N" PENETRATION BLOWS/0.305 m. (10 20 30 40 50 60 +)
						(CONTINUED)		
	15	SS		100				
18.3						END OF BORING End of Boring @ 18.3 Meter	161.5	
19.5								
21.0								
22.5								

WATER LEVEL OBSERVATIONS		Ground Engineering Consultants, Inc.	BORING STARTED 2/1/01	
W.L.	2.7 WD	350 Pfingsten Road, Suite 106	BORING COMPLETED 2/1/01	
W.L.	2.7 AB	Northbrook, IL 60062	RIG B53	FOREMAN CJ
W.L.		(847) 559-0085 Fax (847) 559-0181	DRAWN MS	APPROVED RL

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546-boring-005.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - JLW	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

2001 SOIL BORING LOGS (5 OF 5)
STRUCTURE NO. 016-6546
SHEET NO. SE-20 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	995
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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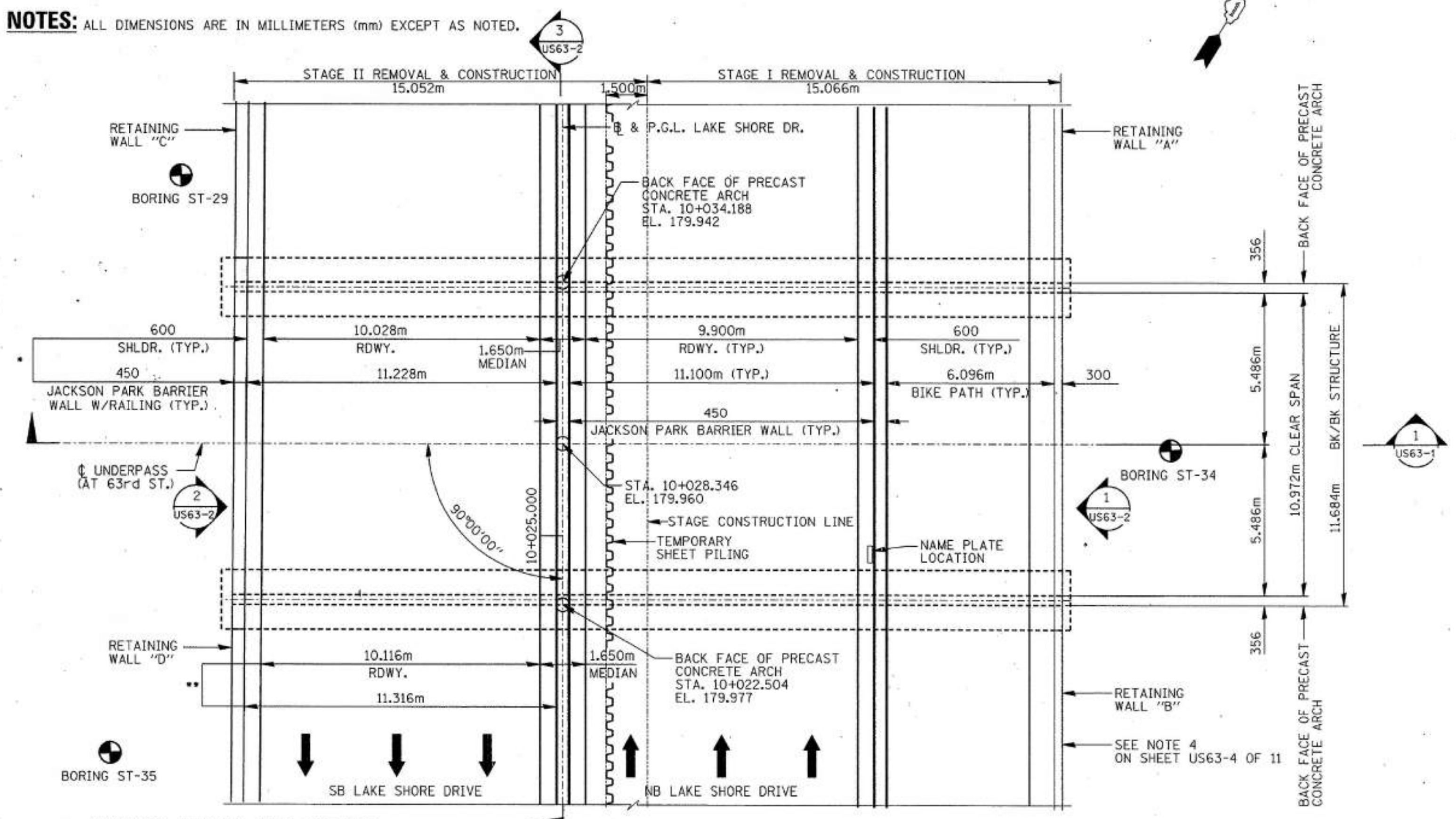
TOTAL SHEETS	SHEET NO.
[illegible]	339

BENCH MARK: CONTROL POINT NO. 9706: P.K. NAIL ON PATH WEST OF FAP 341 (US ROUTE 41)/ LAKE SHORE DRIVE, NORTH OF HAYES DRIVE, LOCATED AT 19.099 m SE OF A 254 mm DIAMETER TREE; 13.594 m SW OF A 610 mm DIAMETER TREE; AND 16.986 m NW OF A 356 mm DIAMETER TREE. ELEV. 178.638.

EXISTING STRUCTURE: NONE, STAGING AS PER STAGING PLAN

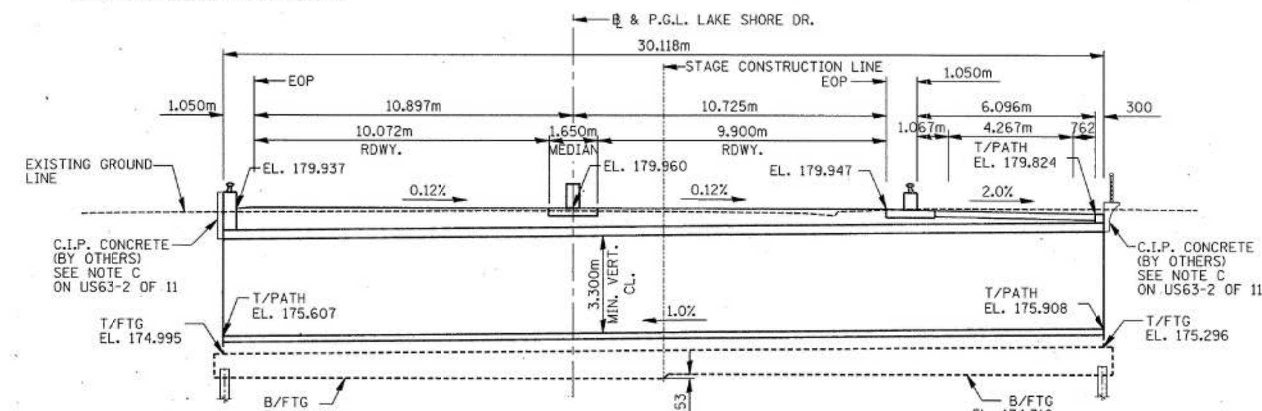
NOTES: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.



* DIMENSIONS MEASURED ALONG BACK FACE OF PRECAST CONCRETE ARCH (NORTH)

** DIMENSIONS MEASURED ALONG BACK FACE OF PRECAST CONCRETE ARCH (SOUTH)

GENERAL PLAN
SCALE: 1:100



SECTION THRU CENTERLINE OF UNDERPASS
(LOOKING NORTH)

FOR BARRIER ELEVATIONS AND ROADWAY & PAVEMENT DETAILS SEE CIVIL DRAWINGS.

DESIGN SPECIFICATIONS
1996 AASHTO WITH INTERIMS UP TO 2000

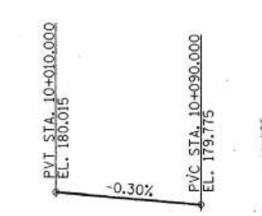
LOADING MS18
ALLOW 2.4 KN/m^2 FOR FUTURE WEARING SURFACES

DESIGN STRESSES
FIELD UNITS
f'c = 28 MPa (CDOT BARRIER)
f'c = 24 MPa (RETAINING WALL)
fy = 410 MPa (REINFORCEMENT)

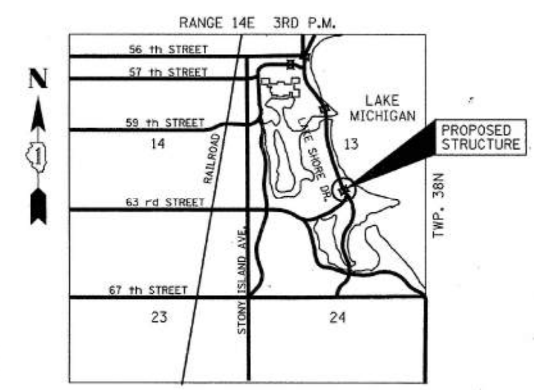
SEISMIC DATA
SEISMIC PERFORMANCE CATEGORY (SPC) = A
BEDROCK ACCELERATION CONSTANT (A) = 0.038g
SITE COEFFICIENT (S) = 1.5

UNDERPASS AT 63RD STREET
BUILT BY
CITY OF CHICAGO
SEC. 00-B0241-06-PV
STATION 10+028.346.
STR. NO. 016-6546 LOADING HS20

NAME PLATE
SEE STD. 515001



PROFILE GRADE
SOUTH LAKE SHORE DRIVE



LOCATION SKETCH
NOT TO SCALE

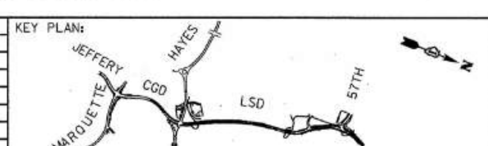
HOR. SCALE 1:100

APPROVED FOR STRUCTURAL ADEQUACY ONLY

Syed M. Kazi
Licensed Structural Engineer
State of Illinois
Lic. No. 081-004047
Expires: 11-30-2002

DESIGN: MTP/N.S.				
DRAWN: NDS				
CHECKED: MTP/SMK				
APPROVED: SMK				
DATE: 02/25/02				
SCALE: AS NOTED				
FILE:	NO.	BY	DATE	DESCRIPTION
	REVISIONS			

KEY PLAN:



CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

DELTA ENGINEERING, INC.
CONSULTING ENGINEERS, CHICAGO ILLINOIS.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

GENERAL PLAN AND SECTION
UNDERPASS AT 63RD STREET
STRUCTURE NUMBER 016-6546

CONTRACT NO. 00-B0241-06-PV
DRAWING NO. US63-1 of 11
PROJECT NO. B-1-440

1665460014 1640091617

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME =	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
ABC-sht-6546ex-001.dgn	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (1 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-1 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	996
CDOT PROJECT NO. B-7-203		SN 016-6546		
		ILLINOIS FED. AID PROJECT		

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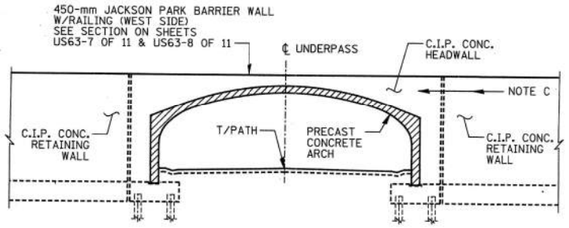
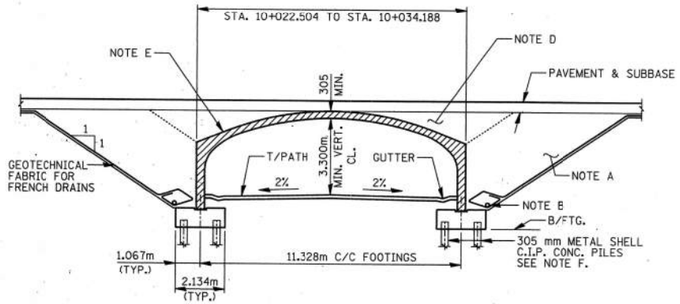
TOTAL SHEETS	SHEET NO.
645	340



1 US63-2 **EAST ELEVATION** (LOOKING WEST)

2 US63-2 **WEST ELEVATION SIMILAR** (LOOKING EAST)



3 US63-2 **TYPICAL TRANSVERSE SECTION** (LOOKING WEST)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUBSTRUCTURE	SUPERSTRUCTURE	TOTAL
STRUCTURE EXCAVATION	CU. M.	2520		2520
POROUS GRANULAR EMBANKMENT	CU. M.	2400		2400
CONTROLLED LOW-STRENGTH MATERIAL	CU. M.		660.3	660.3
CONCRETE STRUCTURES	CU. M.	394.4	22.1	416.5
REINFORCEMENT BARS, EPOXY COATED	KG	35,160	3,520	38,680
ERECTING THREE SIDED PRECAST CONCRETE STRUCTURE	M.	30.1		30.1
FURNISHING METAL PILE SHELLS	M.	2,970.0		2,970.0
DRIVING AND FILLING SHELLS	M.	2,970.0		2,970.0
TEST PILES, METAL SHELLS	EACH	6		6
TEMPORARY SHEET PILING	SQ.M.	484.0		484.0
WATERPROOFING MEMBRANE SYSTEM	SQ.M.		604.5	604.5
NAME PLATE	EACH		1	1
TEMPORARY CONCRETE BARRIER	M.		39.50	39.50
TEMPORARY CONCRETE BARRIER, SPECIAL	M.		79.00	79.00

TEST PILE DATA - ABUTMENT W. SIDE
VULCAN 506 42 BLOWS/MIN 5FT STROKE
21 BLOWS/2FT
10 BLOWS/3IN
6 BLOWS/1IN
ORDER TIP 162.0

TEST PILE WALL C 12/13/02
MIN TIP 165.5

TEST PILE WALL B 3/13/03
MIN TIP 165.5
ORDER 163.0

TEST PILE WALL A : ABOUT 3/20/03
MIN TIP 166.6
ORDER 163.0

NOTE A
BACKFILL WITH UNCOMPACTED POROUS GRANULAR EMBANKMENT PER MANUFACTURER'S REQUIREMENTS, AFTER PRECAST CONCRETE ARCHES ARE IN PLACE.

NOTE B
A 150mm PERFORATED DRAIN PIPE MUST BE SITUATED AT THE BOTTOM OF AN APPROXIMATE 600mm X 600mm AREA OF POROUS GRANULAR EMBANKMENT. THE 600mm X 600mm AREA MUST BE WRAPPED COMPLETELY IN GEOTECHNICAL FABRIC FOR FRENCH DRAINS. CONNECT PIPE TO STORM DRAINAGE SYSTEM. INCIDENTAL TO "POROUS GRANULAR EMBANKMENT".

NOTE C
ARCHITECTURAL C.I.P. CONCRETE CLADDING ON HEADWALLS AND RETAINING WALLS (NOT PART OF THIS CONTRACT SHOWN FOR INFORMATION ONLY).

NOTE D
BACKFILL WITH CONTROLLED LOW-STRENGTH MATERIAL

NOTE E
WATERPROOFING MEMBRANE SYSTEM AROUND PRECAST CONC. ARCH.

INSTALL POROUS GRANULAR EMBANKMENT IN LIEU OF CONTROLLED LOW STRENGTH MATERIAL PER ENFO #20 DATED 3/25/03

City of Chicago
Department of Transportation
Bureau of Highways

Extra Work Field Order

Extra Work Authorization No: 00020
Date: 122503
Project Description: B-1-440 -SLSD- Jackson Park Mainline
Project No.: B-1-440
Attention: Bruce Williams

You are hereby directed to comply with the following:

Description:
Furnish labor, equipment and materials to install Porous Granular Embankment (Special), FA-6, at the locations prescribed on the attached sketches. Work shall include compactive efforts. This change also includes the deletion of Item 353 - Controlled Low Strength Material and its replacement with Porous Granular Embankment (Special), FA-6.

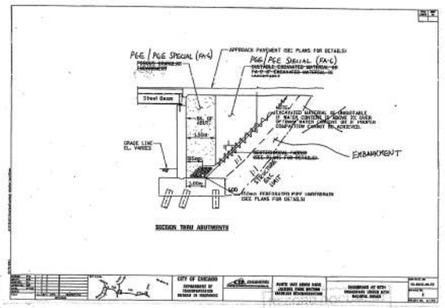
Reason:
The Contract Documents contemplate the reuse of on-site embankment for the backfilling operations of various bridge and retaining wall structures. Concerns were raised relative to the suitability of the material with respect to long-term settlement of the pavement structure above. This scenario promulgated the use of an engineered, graded material to provide a more controllable compactive effort that might not be achievable by reusing on-site embankment.

Cost Implications:
Work shall be performed on a negotiated unitprice basis.
Item 353A - Porous Granular Embankment (Special), FA-6 < Approximately = 15,200.0 CM >

Line item decrease to:
Item 353 - Controlled Low Strength Material < - 2,370.0 CM >

☒ Proceed with work immediately
☐ Proceed with work after authorization

Resident Engineer
Bureau of Highways



HOR. SCALE 1:100

RECORD DOCUMENT
Harbour Engineering, Inc.
218 West Main St.
Plainfield, IL 60544
3.15.06

1665460015 1640091618

DESIGN: M.P./N.S.					
DRAWN: GMK					
CHECKED: GBC/SMK					
APPROVED:					
DATE: 4/16/02					
SCALE: AS NOTED					
FILE:	NO.	BY	DATE	DESCRIPTION	
	REVISIONS				

KEY PLAN: JEFFERY, HAYES, MARQUETTE, CGD, LSD, 57TH

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS — CONSOR TOWNSEND ENVIRODYNE ENGINEERS, INC.
DELTA ENGINEERING, INC. — CONSULTING ENGINEERS, CHICAGO ILLINOIS.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

ELEVATION, SECTION AND BILL OF MATERIAL UNDERPASS AT 63RD STREET STRUCTURE NUMBER 016-6546

CONTRACT NO. 00-B0241-06-PV
DRAWING NO. US63-2
PROJECT NO. B-1-440

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-002.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (2 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-2 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	997
CDOT PROJECT NO. B-7-203		SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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TOTAL SHEETS	SHEET NO.
645	341

NOTES:

GENERAL:

1. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY CONSTRUCTION REQUIRED FOR, BUT NOT LIMITED TO, SHORING, UNDERPINNING AND BRACING, FOR THE PROTECTION OF THE EXISTING STRUCTURES OR UTILITIES WHETHER OR NOT SHOWN ON THE CONTRACT DRAWINGS. THE CONTRACTOR MUST PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PREVENT DAMAGE AND SETTLEMENT OF EXISTING OR NEW CONSTRUCTION INSIDE OR OUTSIDE THE PROJECT LIMITS DURING EXCAVATION. ANY DAMAGE TO NEW OR EXISTING CONSTRUCTION INSIDE OR OUTSIDE OF THE PROJECT LIMITS, CAUSED BY CONSTRUCTION TECHNIQUES OR MOVEMENTS OF THE SOIL OR STRUCTURE RETENTION SYSTEM, IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLAN AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS WILL NOT BE CAUSE FOR ADDITIONAL COMPENSATION OR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
3. THE CONTRACTOR MUST MAKE HIS/HER OWN INVESTIGATION TO DETERMINE THE EXISTENCE, NATURE AND EXACT LOCATION OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR MUST PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PROJECT EXISTING AND NEW UTILITIES.
4. EXISTING AREAS DISTURBED BY CONSTRUCTION OPERATIONS MUST BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AND WILL BE INCIDENTAL TO THE COST OF THIS CONTRACT.
5. DESIGN AND CONSTRUCTION MUST CONFORM TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION 1997.
6. THE BACK FACE OF RETAINING WALLS MUST BE WATERPROOFED ACCORDING TO ARTICLE 503.18 OF THE STANDARD SPECIFICATIONS.
7. ARCHITECTURAL PRECAST CONCRETE CLADDING IS SHOWN FOR REFERENCE ONLY. ARCHITECTURAL PRECAST CONCRETE WILL BE FURNISHED AND ERECTED UNDER A SEPARATE CONTRACT
8. ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.

REINFORCEMENT AND CONCRETE:

1. REINFORCEMENT BARS MUST CONFORM TO THE REQUIREMENTS OF AASHTO M 31M OR M53M GRADE 400. ALL REINFORCING BARS MUST BE EPOXY COATED UNLESS OTHERWISE NOTED.
2. UNLESS OTHERWISE SHOWN, THE COVER FOR REINFORCING STEEL MUST BE AS FOLLOWING:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	75 MM
CONCRETE EXPOSED TO EARTH OR WEATHER; PRIMARY REINFORCEMENT	50 MM
STIRRUPS, TIES, AND SPIRALS	40 MM

3. HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS SHOWN OR NOTED ON THE PLANS ARE RECOMMENDED. ANY DEVIATION FROM THOSE SHOWN MUST HAVE APPROVAL OF THE COMMISSIONER.
4. ALL EXPOSED EDGES OF SLABS, WALLS, AND CURBS MUST BE CHAMFERED 19 MM UNLESS OTHER MEMBERS ARE ERECTED FLUSH WITH THEM.
5. ALL EXPOSED CONCRETE SURFACES MUST BE TREATED WITH SIALANE SEALER, LINSEED OIL OR OTHER SURFACE TREATMENT ARE NOT ACCEPTABLE.

FOUNDATIONS:

1. GROUNDWATER INFORMATION AT THIS LOCATION IS INCLUDED IN THR GEOTECHNICAL REPORT. ALL EXCAVATION FOR STRUCTURES MUST BE KEPT DEWATERED DURING CONSTRUCTION OPERATIONS UNTILL BACKFILL IS IN PLACE AND PROVISIONS MUST BE MADE TO PREVENT THE BOTTOM OF ALL EXCAVATIONS FROM FREEZING OR FLOODING AT ALL TIMES. CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTION THE STRUCTURE AGAINST FLOATATION OR UPLIFT DURING CONSTRUCTION.

STEEL AND METAL SHELL FOR CAST-IN-PLACE CONCRETE PILES:

1. DESIGN PILE CAPACITY WILL BE AS SHOWN ON DRAWINGS.
2. PILES MUST NOT BE DRIVEN UNTIL AFTER THE EXCAVATION FOR THE RETAINING WALL FOOTING IS COMPLETED.
3. THE DRIVING OF EACH PILE MUST BE CONTINUOUS UNTIL THE PILE HAS BEEN DRIVEN TO ITS MINIMUM REQUIRED LENGTH AND CAPACITY DETERMINED FROM TEST PILE INFORMATION.
4. IF AN OBSTRUCTION IS ENCOUNTERED DURING PILE DRIVING, THE PILE MUST BE PULLED AND REDRIVEN AFTER A PILOT HOLE DRILLED THROUGH OBSTRUCTION.
5. FULL LENGTH PILES MUST BE USED, IF SPLICE IS REQUIRED AND APPROVED BY THE COMMISSIONER. IN ADDITION TO ALL OTHER REQUIREMENTS OF SECTION 512 OF THE STANDARD SPECIFICATIONS. SPLICES MUST DEVELOP THE FULL CAPACITY OF THE STEEL'S CROSS SECTIONAL AREA OF THE PILE FOR TENSION, SHEAR AND BENDING FORCES. ONE APPROVED METHOD OF ACHIEVING THIS REQUIREMENT IS FULL PENETRATION BUTT WELDING OF THE ENTIRE CROSS SECTION. OTHER TYPES OF SPLICES MEETING THE FULL CAPACITY REQUIREMENTS MAY BE ALLOWED SUBJECT TO APPROVAL OF THE COMMISSIONER. ANY PROPOSAL BY THE CONTRACTOR TO USE AN ALTERNATE SPLICE METHOD MUST INCLUDE ADEQUATE DOCUMENTATION DEMONSTRATING THAT THE FULL TENSION, SHEAR AND BENDING CAPACITIES WILL BE MET. APPROPRIATE WELDER QUALIFICATIONS WILL BE REQUIRED FOR THE POSITIONS AND PROCESSES USED IN SPLICING ALL PILES. NONDESTRUCTIVE TESTING OF COMPLETE WELDS WILL BE LIMITED TO VISUAL INSPECTION.
6. CONTRACTOR SHALL FURNISH AND INSTALL REBARS FOR PILES AS SHOWN ON SHT US63-7. REBARS FOR PILES SHALL BE INCIDENTAL TO PILES. CONTRACTOR SHALL NOTE THAT PILE REBAR LENGTH & SIZE ARE SPECIAL FOR THIS PROJECT.

ABBREVIATIONS:

ABT.	ABOUT	IL	INSIDE LAYER
ADD'L	ADDITIONAL	INV.EL.	INVERT ELEVATION
ALT.	ALTERNATE	LLH	LONG LEG HORIZONTAL
APPROX.	APPROXIMATELY	LLV	LONG LEG VERTICAL
BF	BOTTOM FACE	L.P.	LOW POINT
BL	BOTTOM LAYER	MAX	MAXIMUM
BK/BK	BACK TO BACK	MH	MANHOLE
BOT	BOTTOM	MIN	MINIMUM
B/	BOTTOM OF	ML	MIDDLE LAYER
CC	CENTER TO CENTER	NF	NEAR FACE
C.I.	CAST IRON	N.T.S.	NOT TO SCALE
CJ	CONSTRUCTION JOINT	NO.	NUMBER
C.I.P.	CAST IN PLACE	OC	ON CENTERS
C/L	CENTER LINE	OD	OUTSIDE DIAMETER
CL	CLEAR	OF	OUTSIDE FACE
CONC.	CONCRETE	OL	OUTSIDE LAYER
CONT.	CONTINUOUS	OPNG	OPENING
CONT. JT.	CONSTRUCTION JOINT	P.C.C.P.	PRESTRESSED CONCRETE CYLINDER PIPE
DIA	DIAMETER	PROP.	PROPOSED
DWG	DRAWING	R.C.	REINFORCED CONCRETE
DWL	DOWEL	R.C.P.	REINFORCED CONCRETE PIPE
EE	EACH END	REINF.	REINFORCEMENT
EF	EACH FACE	RET. WALL	RETAINING WALL
EL	EACH LAYER	SH. NO.	SHEET NUMBER
EL.	ELEVATION	S.S.	STAINLESS STEEL
ES	EACH SIDE	STD	STANDARD
EST.	ESTABLISH	STA.	STATION
EW	EACH WAY	STIRR	STIRRUPS
EXIST.	EXISTING	STR.	STRUCTURE
EXP. JT.	EXPANSION JOINT	T&B	TOP & BOTTOM
FF	FAR FACE	TF	TOP FACE
FIN.	FINISH	TL	TOP LAYER
FTG	FOOTING	T/	TOP OF
ML	MIDDLE LAYER	T/C	TOP OF CONCRETE
HOR.	HORIZONTAL	TYP.	TYPICAL
HK	STANDARD HOOK	U.N.O.	UNLESS NOTED OTHERWISE
H.P.	HIGH POINT	VERT	VERTICAL
ID	INSIDE DIAMETER	W.P.	WORKING POINT
IF	INSIDE FACE	W.S.	WATERSTOP

RECORD DOCUMENT
Hardesty Engineering, Inc.
215 [illegible]
Plainfield, [illegible]
By: [illegible]
Date: 5.15.06

RECORD DOCUMENT

$FILE$

$DATE$

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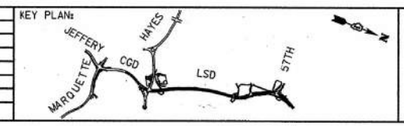
	REVISIONS			

KEY PLAN:



CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.
DELTA ENGINEERING, INC.
CONSULTING ENGINEERS, CHICAGO ILLINOIS.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

GENERAL NOTES
UNDERPASS AT 63RD STREET
STRUCTURE NUMBER 016-6546

CONTRACT NO. 00-B0241-06-PV
DRAWING NO. US63-3
PROJECT NO. B-1-440

1606546006 1640091619

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

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		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (3 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-3 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	998
CDOT PROJECT NO. B-7-203		SN 016-6546		
		ILLINOIS FED. AID PROJECT		

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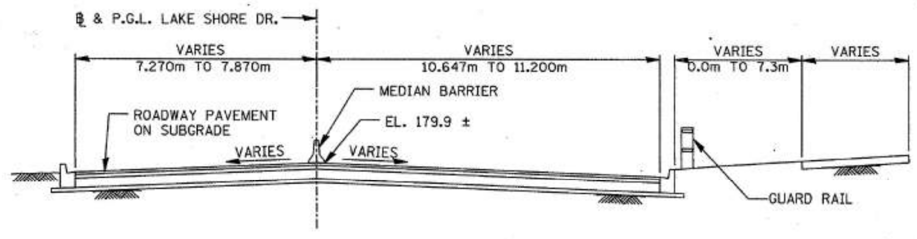

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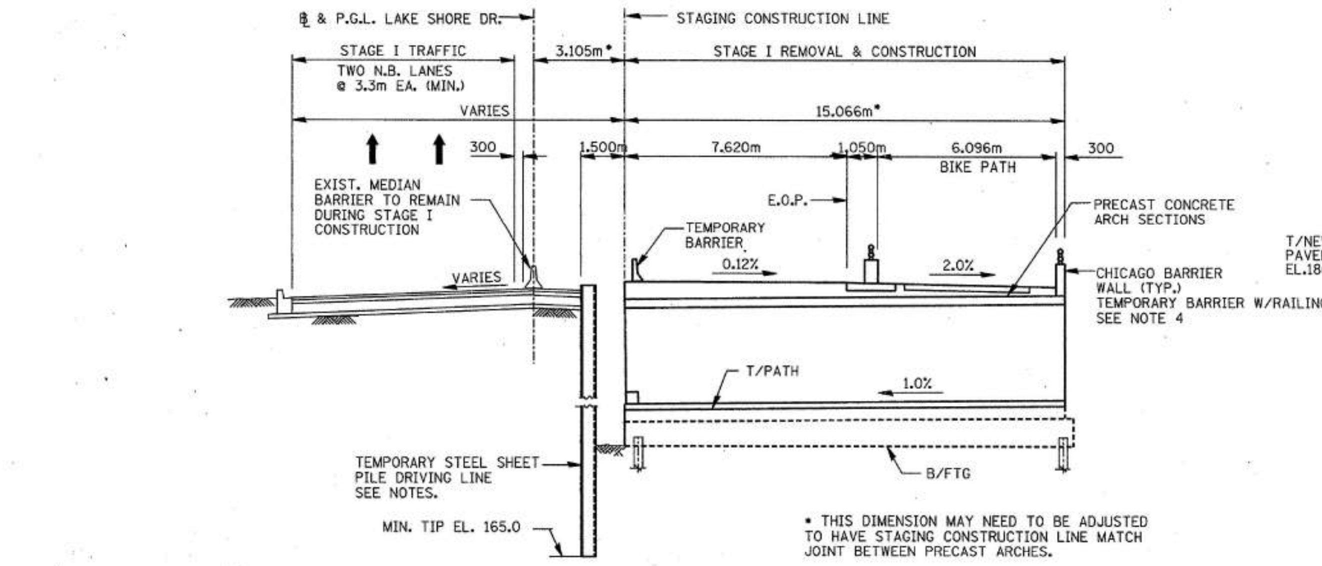
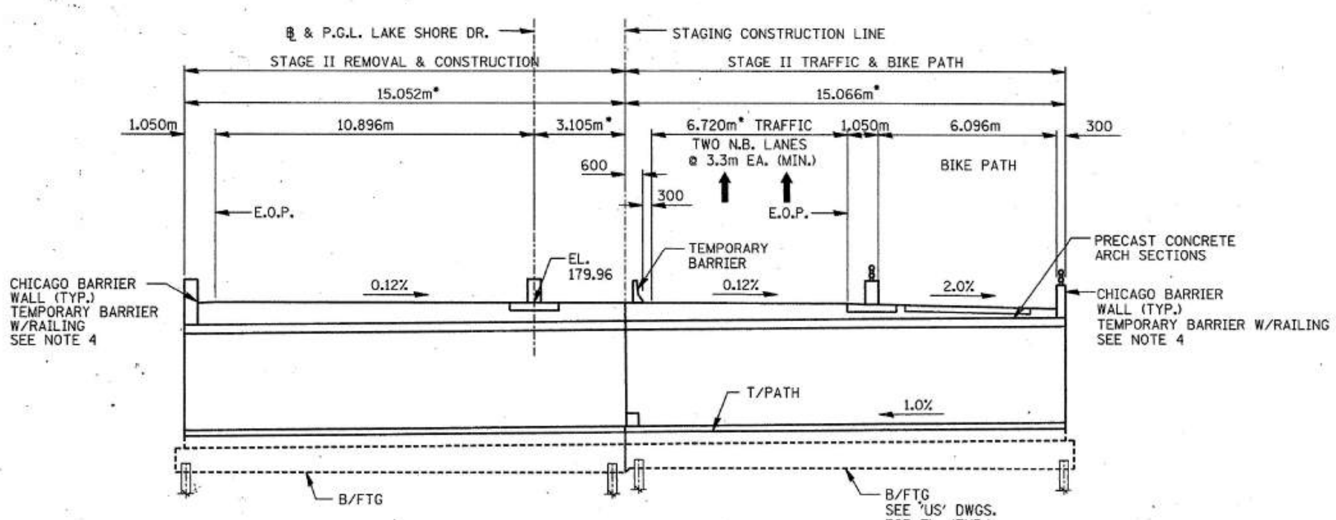


STAGE I CROSS SECTION THRU CENTERLINE OF UNDERPASS
(LOOKING NORTH)



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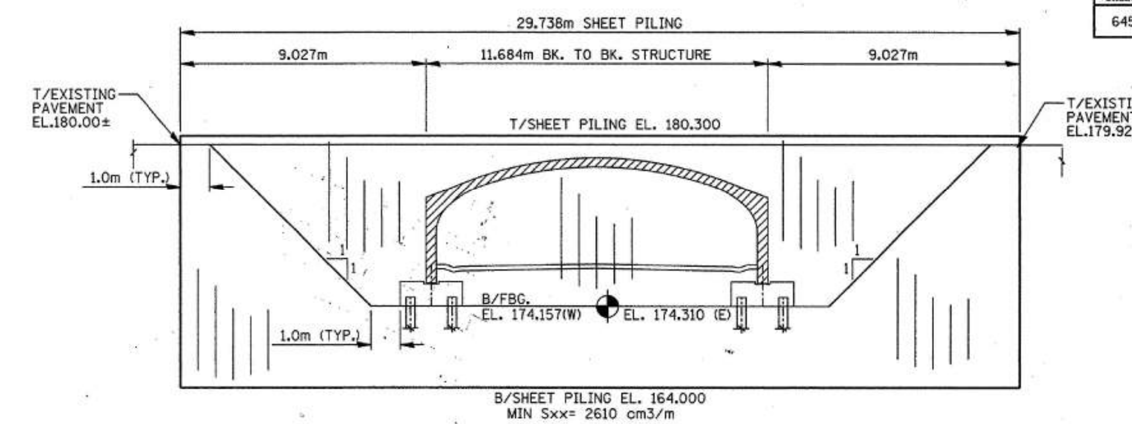

STAGE I SHEET PILE ELEVATION
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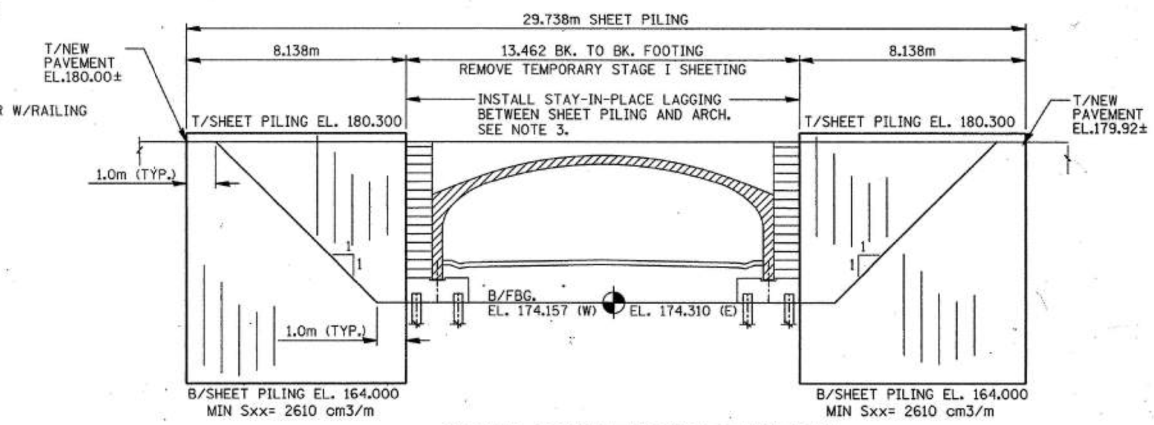

STAGE II SHEET PILE ELEVATION
(LOOKING WEST)

NOTES:

1. THE CONTRACTOR MUST DESIGN THE TEMPORARY SHEET PILING AND SUBMIT DRAWINGS AND DESIGN CALCULATIONS PREPARED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF ILLINOIS.
2. FOR CANTILEVERED STEEL SHEET PILING, THE MINIMUM REQUIRED SECTION MODULUS IS 2610 cm3/m. THE TOP OF SHEETING MUST BE 300mm ABOVE EXISTING PAVEMENT. SHOWN FOR COST ESTIMATION PURPOSE ONLY.
3. IT IS CONTRACTOR'S RESPONSIBILITY TO PROVIDE A DESIGN FOR THE STAY-IN-PLACE LAGGING COMPLETE WITH CALCULATIONS AND DRAWINGS, SIGNED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF ILLINOIS, FOR THE ENGINEER'S REVIEW ACCORDING TO SECTION 105.04 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO "TEMPORARY SHEET PILING".
4. TEMPORARY BARRIER WITH PARAPET RAILING TO BE PROVIDED ALONG ENTIRE LENGTH OF RETAINING WALL & HEADWALLS UNTIL CHICAGO BARRIER AND ARCHITECTURAL FACADE IS CONSTRUCTED. SEE SHEET US59-12. THIS ITEM WILL BE PAID AS "TEMPORARY CONCRETE BARRIER, SPECIAL".

RECORD DOCUMENT

HOR. SCALE 1:100

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APPROVED: SMK				
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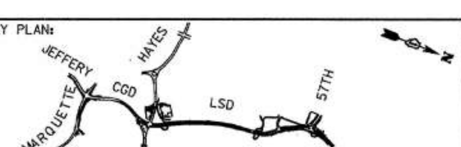

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.
DELTA ENGINEERING, INC.
CONSULTING ENGINEERS, CHICAGO ILLINOIS.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

STAGING DETAILS
UNDERPASS AT 63RD STREET
STRUCTURE NUMBER 016-6546

CONTRACT NO. 00-B0241-06-PV
DRAWING NO. US63-4
PROJECT NO. B-1-440

1665460017 1640091620

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME =	USER NAME = jsurber	DESIGNED - CJC	REVISED -	CITY OF CHICAGO	EXISTING PLANS (4 OF 50)	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - JLW	REVISED -	DEPARTMENT OF TRANSPORATION	STRUCTURE NO. 016-6546	2873	17-B7203-00-ES	COOK	1434	999
ABC-sht-6546ex-004.dgn	PLOT SCALE =	DRAWN - RMG	REVISED -	DIVISION OF ENGINEERING		CDOT PROJECT NO. B-7-203		SN 016-6546		
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -		SHEET NO. SEX-4 OF 50 SHEETS		ILLINOIS FED. AID PROJECT			

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TOTAL SHEETS	SHEET NO.
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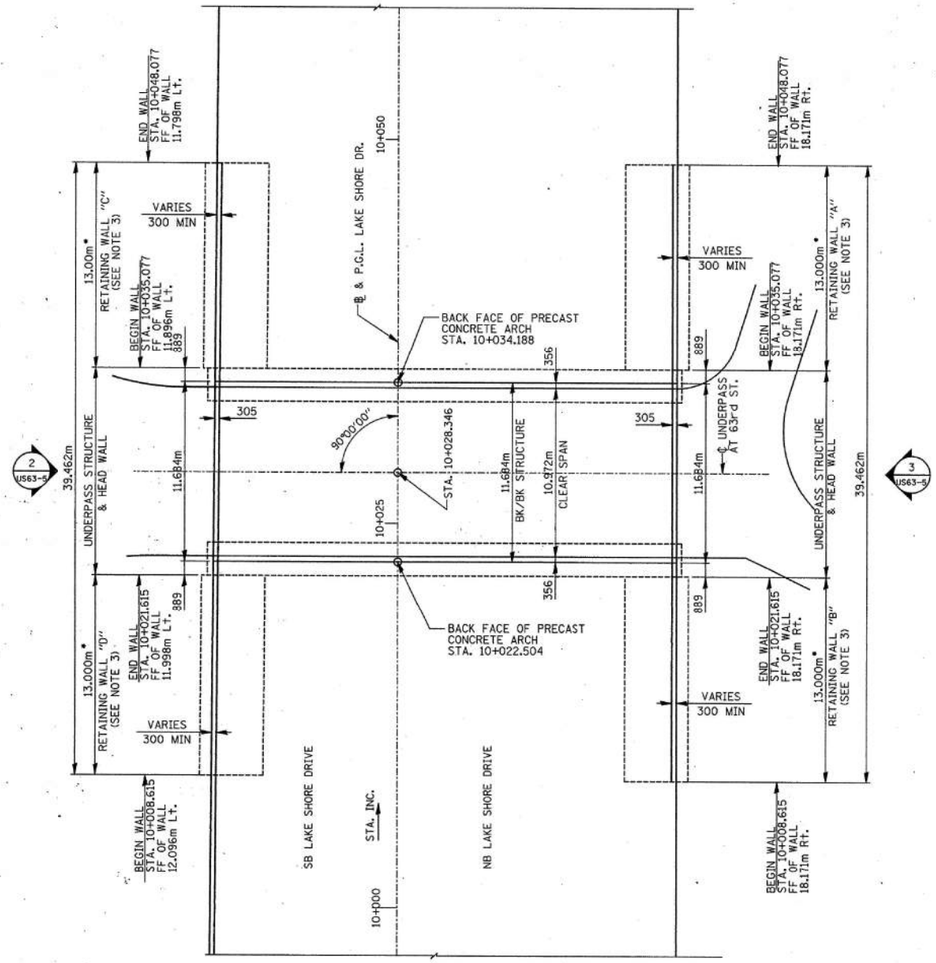
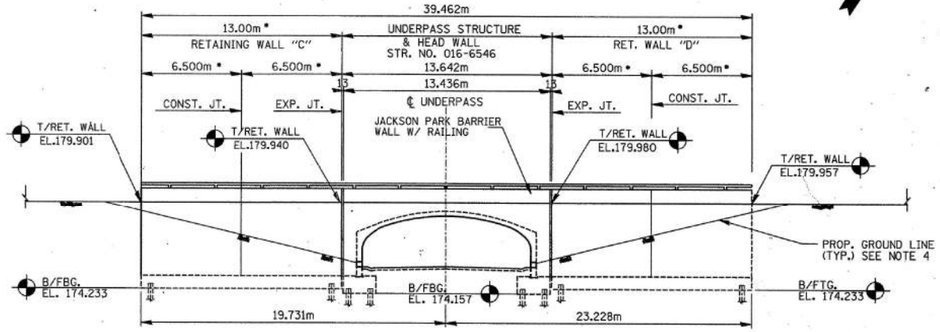


RETAINING WALL PLAN

SCALE: 1:150

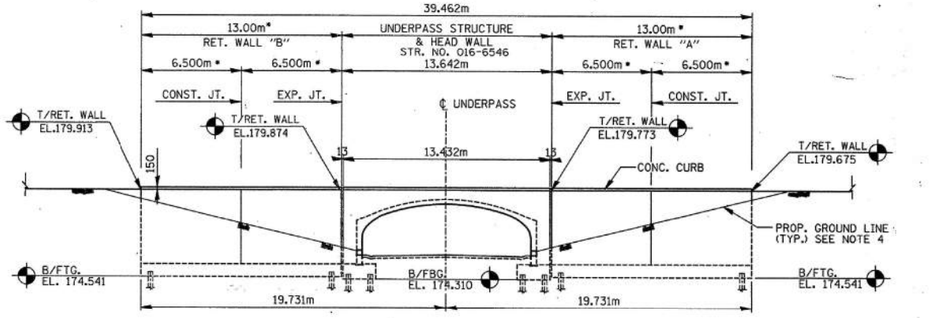
• DENOTES DIMENSIONS ARE MEASURED ALONG THE EXTERIOR FACE OF CONCRETE RETAINING WALL. SEE RETAINING WALL SECTION.

•• DIMENSION TO BE VERIFIED AT SITE



WEST ELEVATION

2 US63-5 (LOOKING EAST)



EAST ELEVATION

3 US63-5 (LOOKING WEST)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.
2. STATIONS AND OFFSETS ARE MEASURED TO THE EXTERIOR FACE OF THE RETAINING WALL. SEE RETAINING WALL SECTION.
3. • DENOTES DIMENSIONS ARE MEASURED ALONG THE EXTERIOR FACE OF CONCRETE RETAINING WALL. SEE RETAINING WALL SECTION.
4. FOR PROPOSED GROUND LINE SLOPE & ELEVATION REFER CIVIL DRAWINGS.

5m 0 10 20m
SCALE 1:150m

RECORD DOCUMENT
Harbour Engineering, Inc.
3.15.06

@FILE@
@DATE@

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CHECKED: MTP/SMK				
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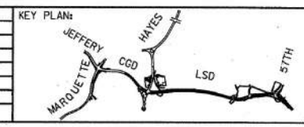
SCALE: AS NOTED				
FILE:	NO.	BY	DATE	DESCRIPTION
	REVISIONS			

KEY PLAN:



CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.
DELTA ENGINEERING, INC.
CONSULTING ENGINEERS, CHICAGO ILLINOIS.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

PLAN AND ELEVATIONS
UNDERPASS AND RETAINING WALLS
AT 63RD STREET
STRUCTURE NUMBER 016-6546

CONTRACT NO.	00-B0241-06-PV
DRAWING NO.	US63-5
PROJECT NO.	B-1-440

1605460018 1640091621

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

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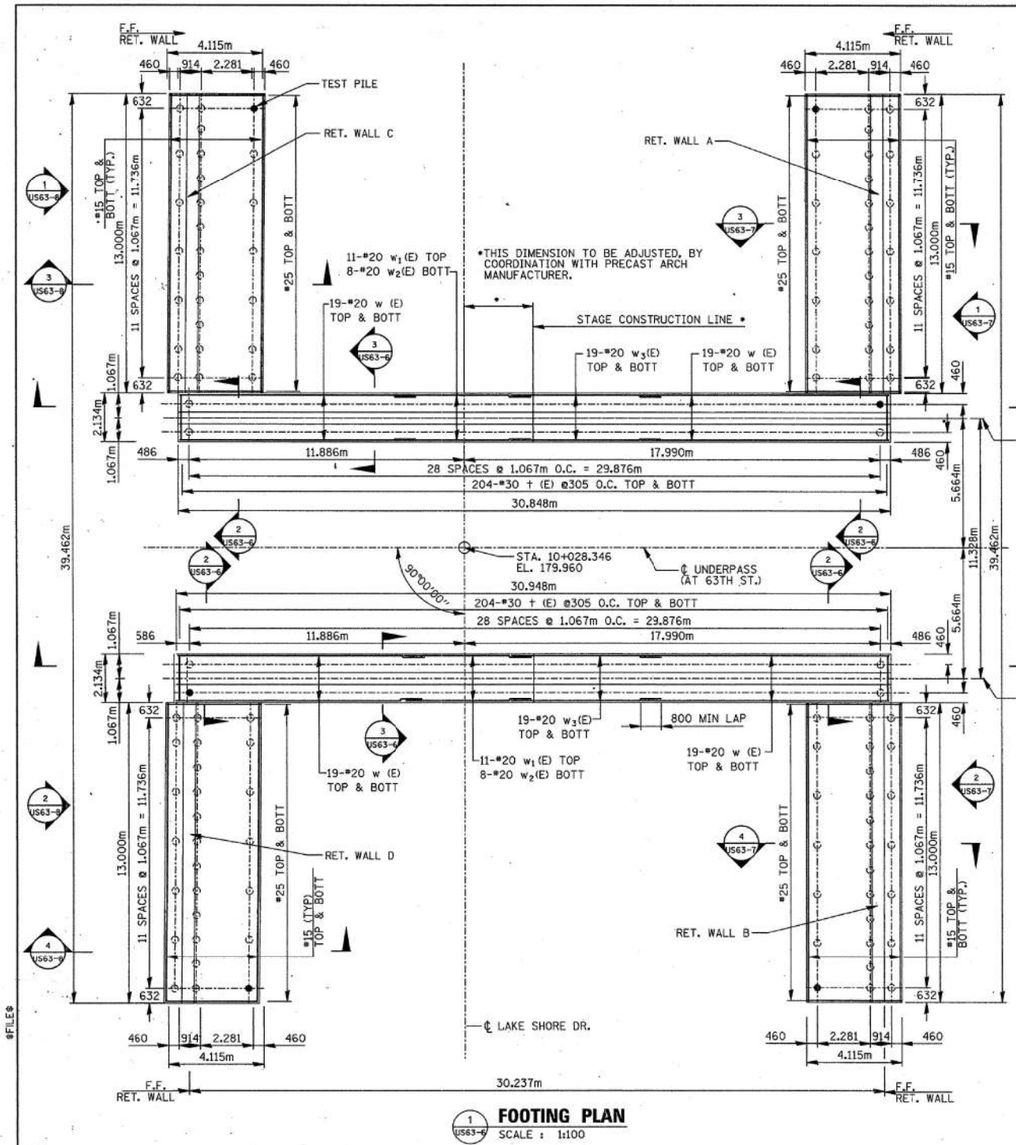
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

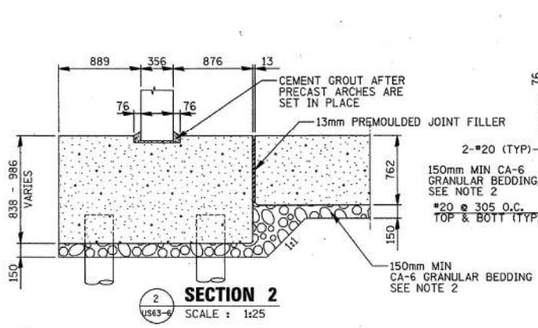
EXISTING PLANS (5 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-5 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1000
CDOT PROJECT NO.	B-7-203	SN 016-6546		
	ILLINOIS FED. AID PROJECT			

TOTAL SHEETS	SHEET NO.
645	344



FOOTING PLAN
SCALE : 1:100



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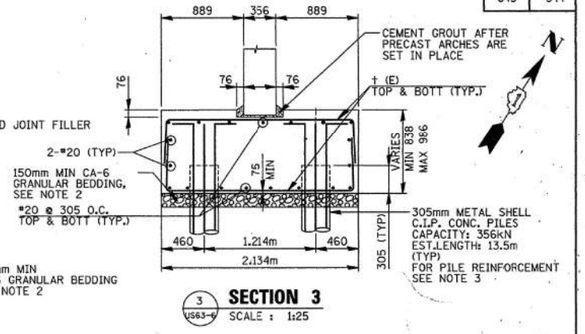

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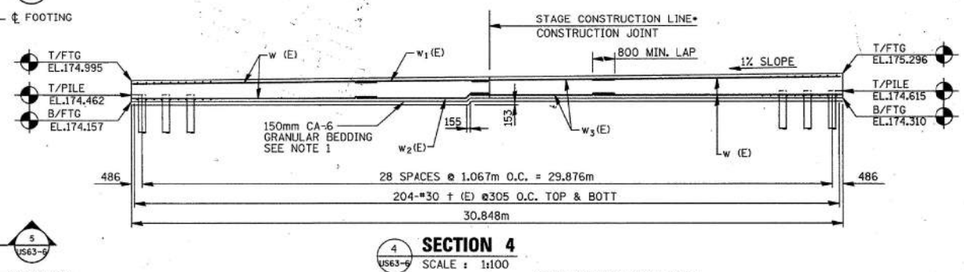

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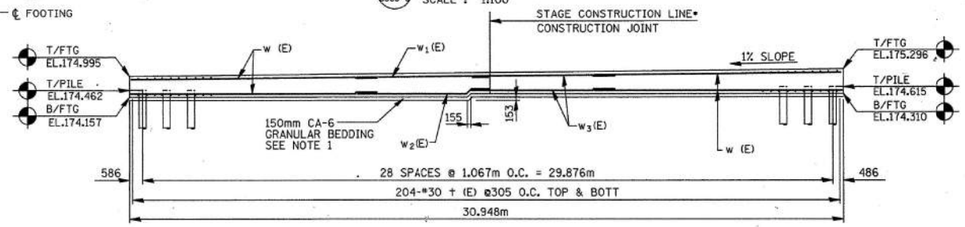

SECTION 5
SCALE : 1:100

LEGEND:
- ● PILE LOCATION
- O TEST PILE LOCATION

NOTES:
1. FOR GENERAL STRUCTURAL NOTES SEE DWG US63-3
2. 150mm MIN GRANULAR BEDDING FILL CA-6 BELOW FOUNDATION, COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY. (INCIDENTAL TO CONCRETE STRUCTURES)
3. ALL PILES MUST BE REINFORCED PER "TYPICAL PILE REINFORCEMENT" DETAIL SHOWN ON DWG US63-7.
4. STAGE CONSTRUCTION LINE TO BE ADJUSTED TO MATCH JOINT BETWEEN PRECAST ARCHES AS DIRECTED BY CITY OF CHICAGO FIELD ENGINEER.

RECORD DOCUMENT Hardesty & Hanover, LLP 3.13.06

DESIGN: MTP/N.S.				
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APPROVED: SMK				
DATE: 4/16/02				
SCALE: AS NOTED				
FILE:	NO.	BY	DATE	DESCRIPTION
	REVISIONS			

KEY PLAN: JEFFERY, HAYES, MARQUETTE, CGD, LSD, 57TH

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS — CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.
DELTA ENGINEERING, INC. — CONSULTING ENGINEERS, CHICAGO ILLINOIS.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

FOUNDATION LAYOUT
UNDERPASS AND RETAINING WALLS
AT 63RD STREET
STRUCTURE NUMBER 016-6546

CONTRACT NO.	00-B0241-06-PV
DRAWING NO.	US63-6
PROJECT NO.	B-I-440

1665460019 1690091622

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FOR INFORMATION ONLY

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (6 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-6 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1001
CDOT PROJECT NO. B-7-203		SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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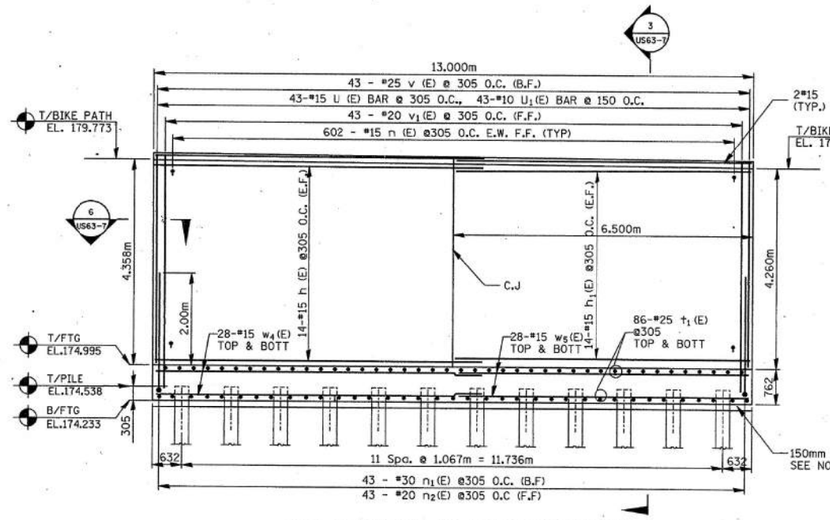
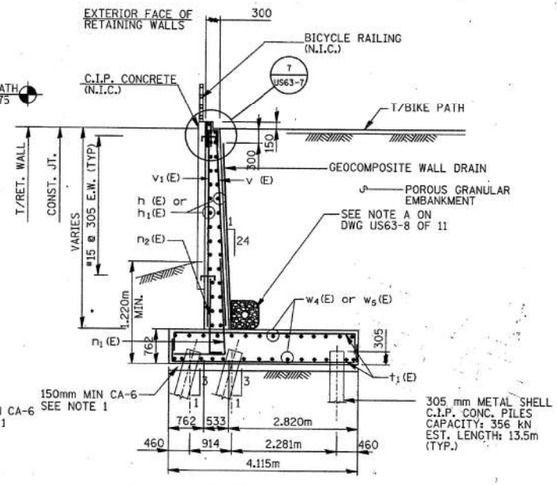
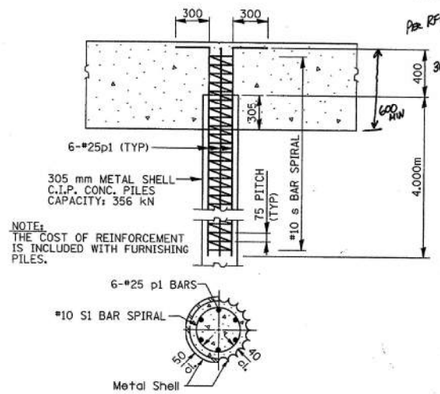
TOTAL SHEETS	SHEET NO.
645	345



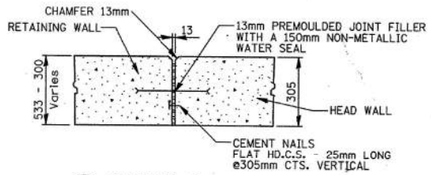
ELEVATION RETAINING WALL "A" (LOOKING WEST)
SCALE: 1:50



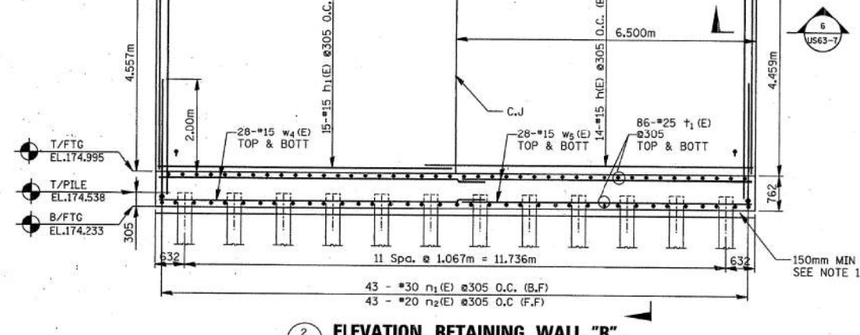
SECTION 3 (THRU RETAINING WALL "A")
SCALE: 1:50



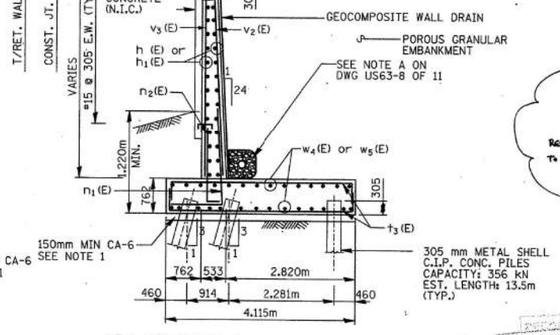
TYPICAL PILE REINFORCEMENT DETAIL
SCALE: 1:20; SEE SHT US63-10 FOR ADDITIONAL DETAILS



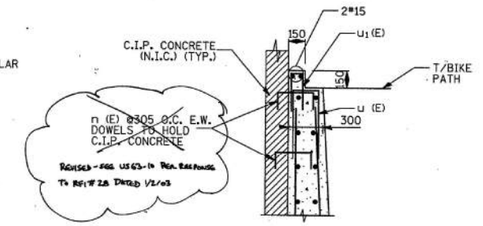
SECTION 6 TYPICAL EXPANSION JOINT
SCALE: 1:10



ELEVATION RETAINING WALL "B" (LOOKING WEST)
SCALE: 1:50



SECTION 4 (THRU RETAINING WALL "B")
SCALE: 1:50



DETAIL "7" TYPICAL T/RET. WALL
SCALE: 1:20

NOTE:
1. 150mm MIN GRANULAR BEDDING FILL CA-6 BELOW FOUNDATION, COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY (INCIDENTAL TO CONCRETE STRUCTURES)
2. ALL METAL SHELL CONC. PILES MUST BE OF THE CAPACITY = 356kN.
3. C.I.P. CONCRETE FACADE (NOT PART OF THIS CONTRACT) SHOWN FOR INFORMATION ONLY.
4. GEOCOMPOSITE WALL DRAIN COST INCIDENTAL TO "POROUS GRANULAR EMBANKMENT"

RECORD DOCUMENT Harrison Engineering, Inc. 2.18.05

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DATE: 4/16/02				
SCALE: 1:50 U.N.O.				
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	REVISIONS			

KEY PLAN: JEFFERY, HAYES, MARQUETTE, CGD, LSD, 57TH

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS — CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.
DELTA ENGINEERING, INC. — CONSULTING ENGINEERS, CHICAGO ILLINOIS.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

RETAINING WALLS A & B
ELEVATIONS AND SECTIONS
UNDERPASS AT 63RD STREET
STRUCTURE NUMBER 016-6546

CONTRACT NO.	00-B0241-06-PV
DRAWING NO.	US63-7
PROJECT NO.	B-1-440

1605460020 1604091623

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	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (7 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-7 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1002
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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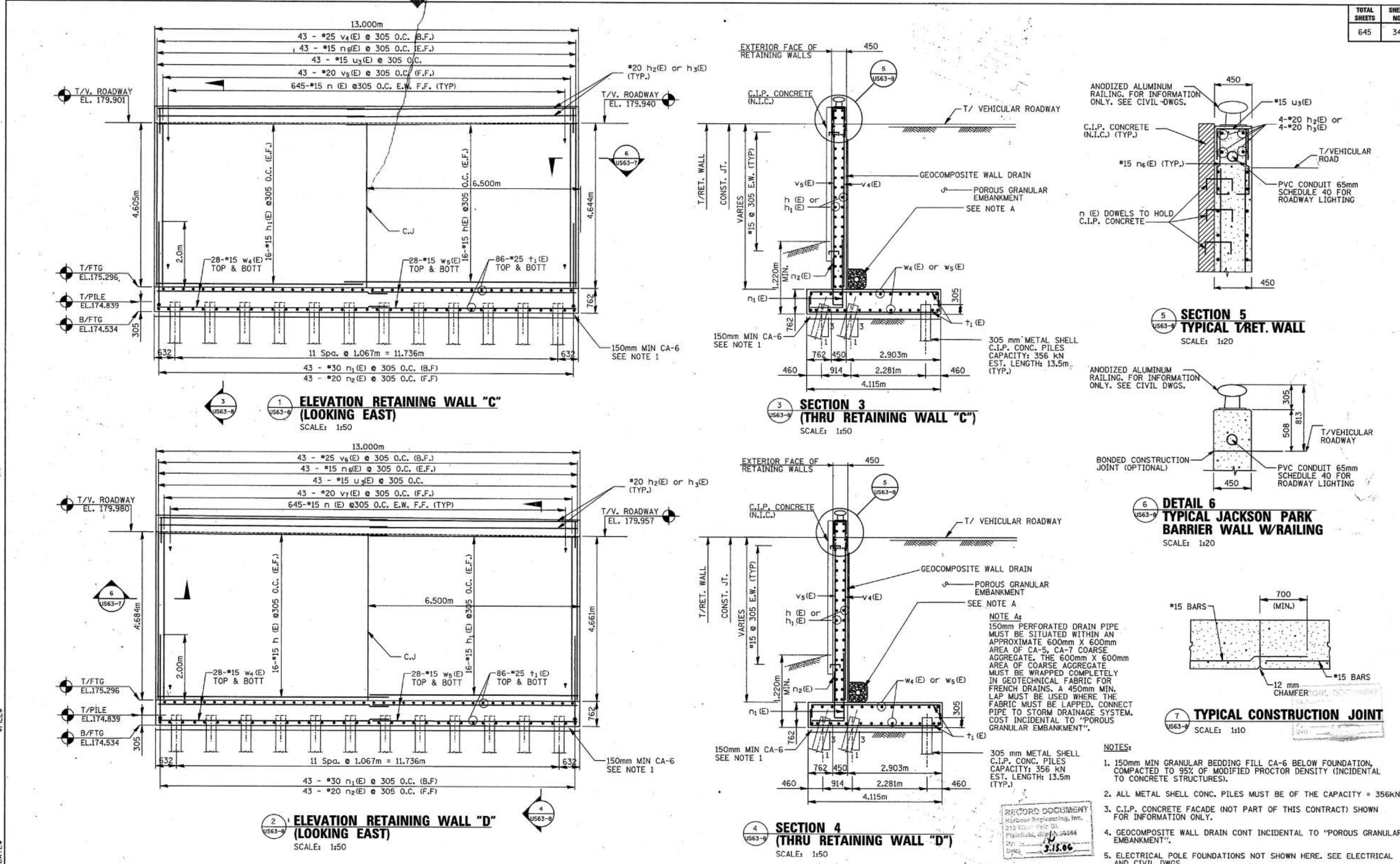

NOTE A:
150mm PERFORATED DRAIN PIPE MUST BE SITUATED WITHIN AN APPROXIMATE 600mm X 600mm AREA OF CA-5, CA-7 COARSE AGGREGATE. THE 600mm X 600mm AREA OF COARSE AGGREGATE MUST BE WRAPPED COMPLETELY IN GEOTECHNICAL FABRIC FOR FRENCH DRAINS. A 450mm MIN. LAP MUST BE USED WHERE THE FABRIC MUST BE LAPPED. CONNECT PIPE TO STORM DRAINAGE SYSTEM. COST INCIDENTAL TO "POROUS GRANULAR EMBANKMENT".

NOTES:

1. 150mm MIN GRANULAR BEDDING FILL CA-6 BELOW FOUNDATION, COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY (INCIDENTAL TO CONCRETE STRUCTURES).
2. ALL METAL SHELL CONC. PILES MUST BE OF THE CAPACITY = 356kN.
3. C.I.P. CONCRETE FACADE (NOT PART OF THIS CONTRACT) SHOWN FOR INFORMATION ONLY.
4. GEOCOMPOSITE WALL DRAIN CONT INCIDENTAL TO "POROUS GRANULAR EMBANKMENT".
5. ELECTRICAL POLE FOUNDATIONS NOT SHOWN HERE. SEE ELECTRICAL AND CIVIL DWGS.

RECORD DOCUMENT 3.15.06

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APPROVED: SMK				
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FILE:	NO.	BY	DATE	DESCRIPTION
	REVISIONS			

KEY PLAN: JEFFERY, HAYES, CGD, LSD, 57TH, MARQUETTE

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
DELTA ENGINEERING, INC.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

RETAINING WALLS C & D
ELEVATIONS AND SECTIONS
UNDERPASS AT 63RD STREET
STRUCTURE NUMBER 016-6546

CONTRACT NO. 00-B0241-06-PV
DRAWING NO. US63-8
PROJECT NO. B-1-440

1665A60021 1640091624

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	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (8 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-8 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1003
CDOT PROJECT NO. B-7-203		SN 016-6546		
		ILLINOIS FED. AID PROJECT		

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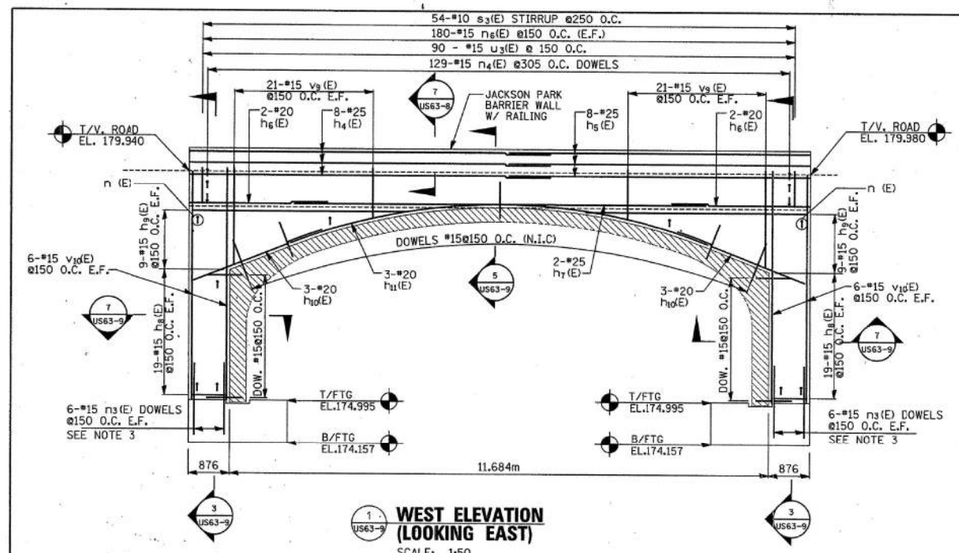
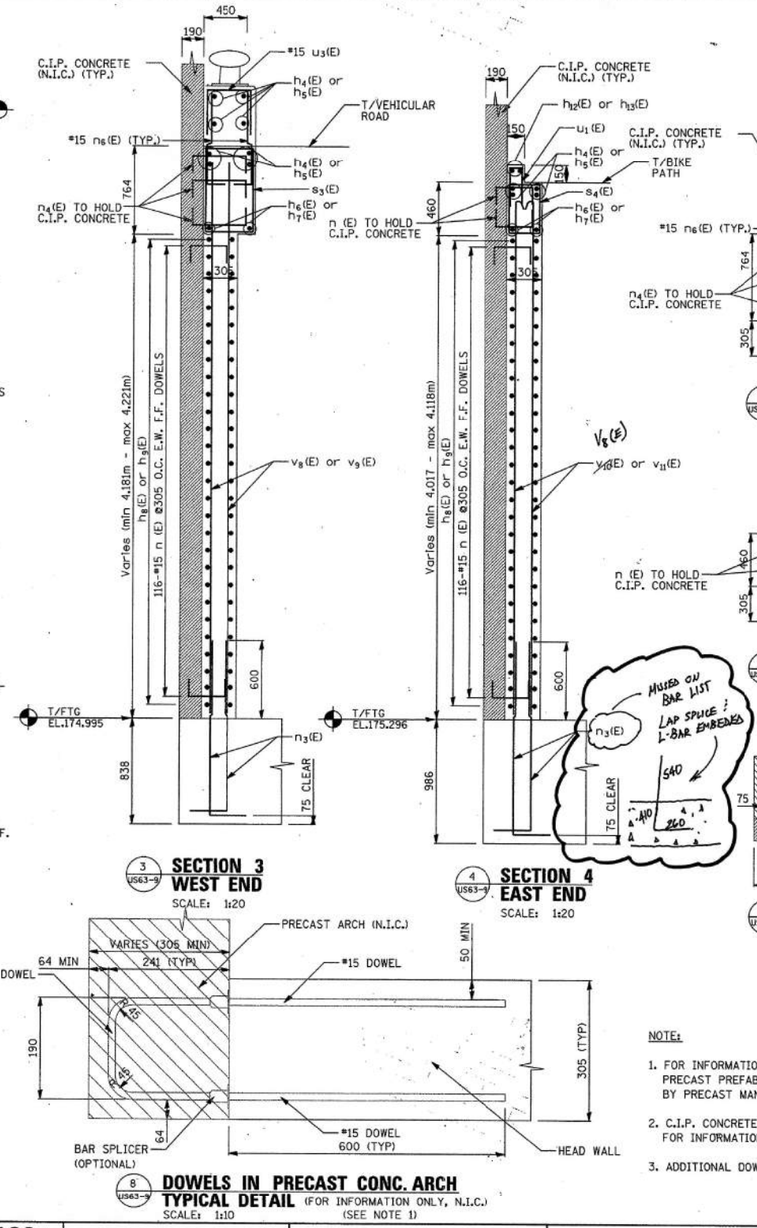
TOTAL SHEETS	SHEET NO.
645	347





RECORD DOCUMENT
Harbour Engineering, Inc.
218 West Main St
Plainfield, Illinois 60544
By: [illegible]
Date: 4/15/06

NOTE:

1. FOR INFORMATION ONLY. (DOWELS INTO TWO EXTERIOR PRECAST PREFABRICATED ARCH TO BE SUPPLIED & INSTALLED BY PRECAST MANUFACTURER AT THE PRECAST PLANT). NIC.
2. C.I.P. CONCRETE (NOT PART OF THIS CONTRACT) SHOWN FOR INFORMATION ONLY.
3. ADDITIONAL DOWELS INTO FOOTING.

DESIGN: MTP/N.S.				
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APPROVED: SMK				
DATE: 4/16/02				
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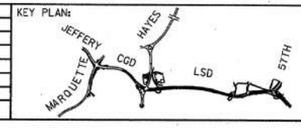
FILE:	NO.	BY	DATE	DESCRIPTION
	REVISIONS			

KEY PLAN:



CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.
DELTA ENGINEERING, INC.
CONSULTING ENGINEERS, CHICAGO ILLINOIS.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

HEADWALLS
REINFORCEMENT DETAILS
UNDERPASS AT 63RD STREET
STRUCTURE NUMBER 016-6546

CONTRACT NO. 00-B0241-06-PV
DRAWING NO. US63-9
PROJECT NO. B-1-440

K605460022 1640091625

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (9 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-9 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1004
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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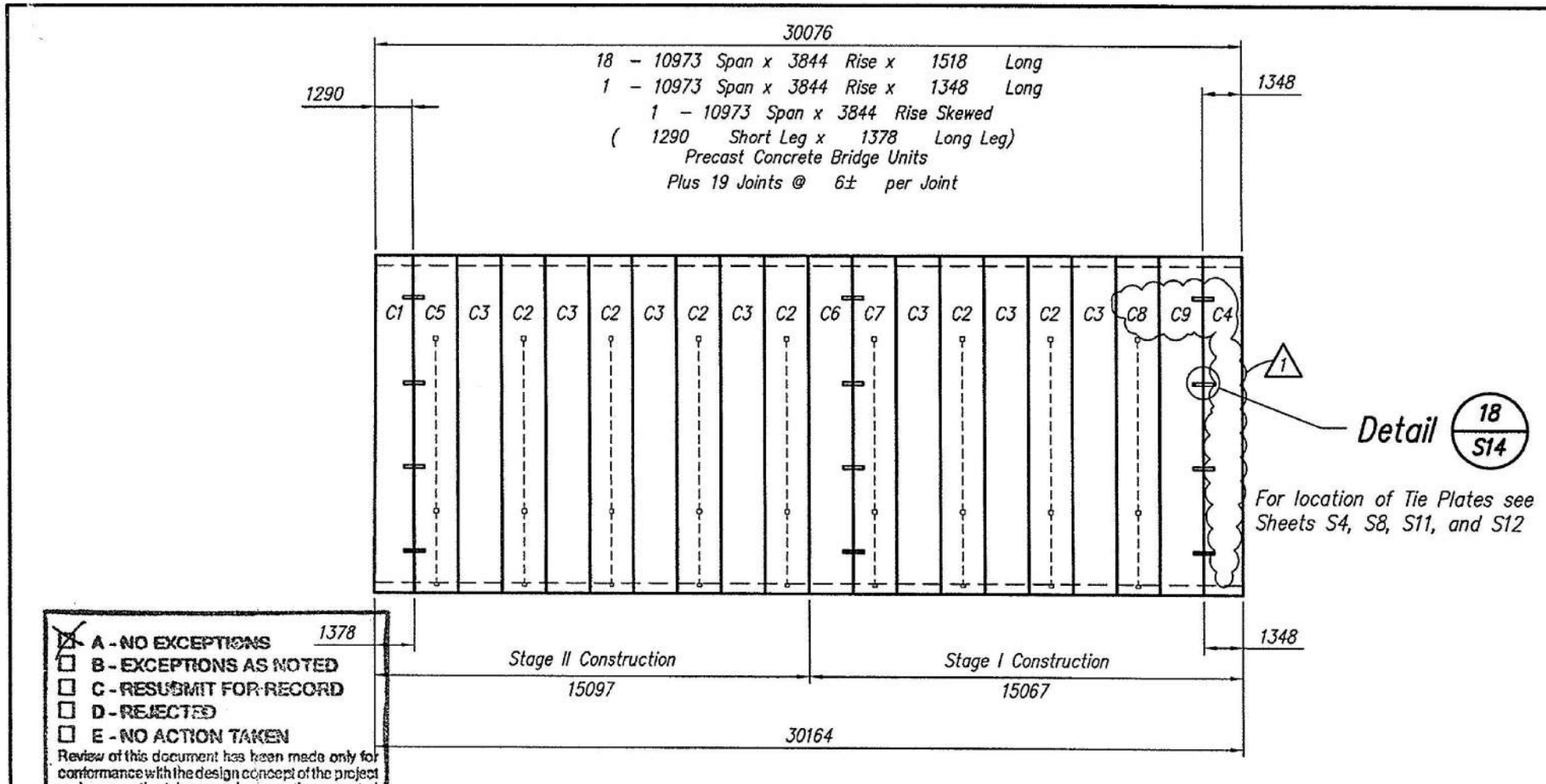

KEY PLAN

(All dimensions are measured along slope – on plane parallel to top of foundation)

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.
2) Recommended Installation Procedures will be Submitted Under Separate Cover.
3) Catalog Cuts for Electrical Junction Box & Lighting Fixture Recessed Cast Housing to be Submitted Under Separate Cover
4) Contractor to Supply all Electrical Wiring & Conduit, Required to be Installed in Continuous 50 x 75 Blockout in Precast Arch unit Legs.

☒ A - NO EXCEPTIONS
☐ B - EXCEPTIONS AS NOTED
☐ C - RESUBMIT FOR RECORD
☐ D - REJECTED
☐ E - NO ACTION TAKEN

Review of this document has been made only for conformance with the design concept of the project and no exception taken or make corrections noted shall not relieve the contractor from responsibility for any errors therein or for furnishing the materials and equipment of proper dimensions, size, quantity, quality, and all performance characteristics to meet the requirements and intent of the contract documents.

CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.
DATE 8.29.02 BY DPV

DATE: 8-16-02
SIGNATURE: Timothy J. Beach
LOCATION: DAYTON, OH
LICENSE EXPIRATION DATE: 11-30-02

TIMOTHY J. BEACH 81-005075 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

W:\00Projects\8000\8354\8354-M-SH-B-ACT-A2K.dwg, 08/16/2002 02:50:50 PM, mcarfagno

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16654600060

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Revisions:		
No.	Date	
1	8/16/02	
2		
3		
4		

Sheet Title: KEY PLAN SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR.
UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By: MGC	Job No. 8354
Drawn By: TRL	Sheet No. S1
Chk'd By: MGC	
Date: 5/31/02	

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (10 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-10 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1005
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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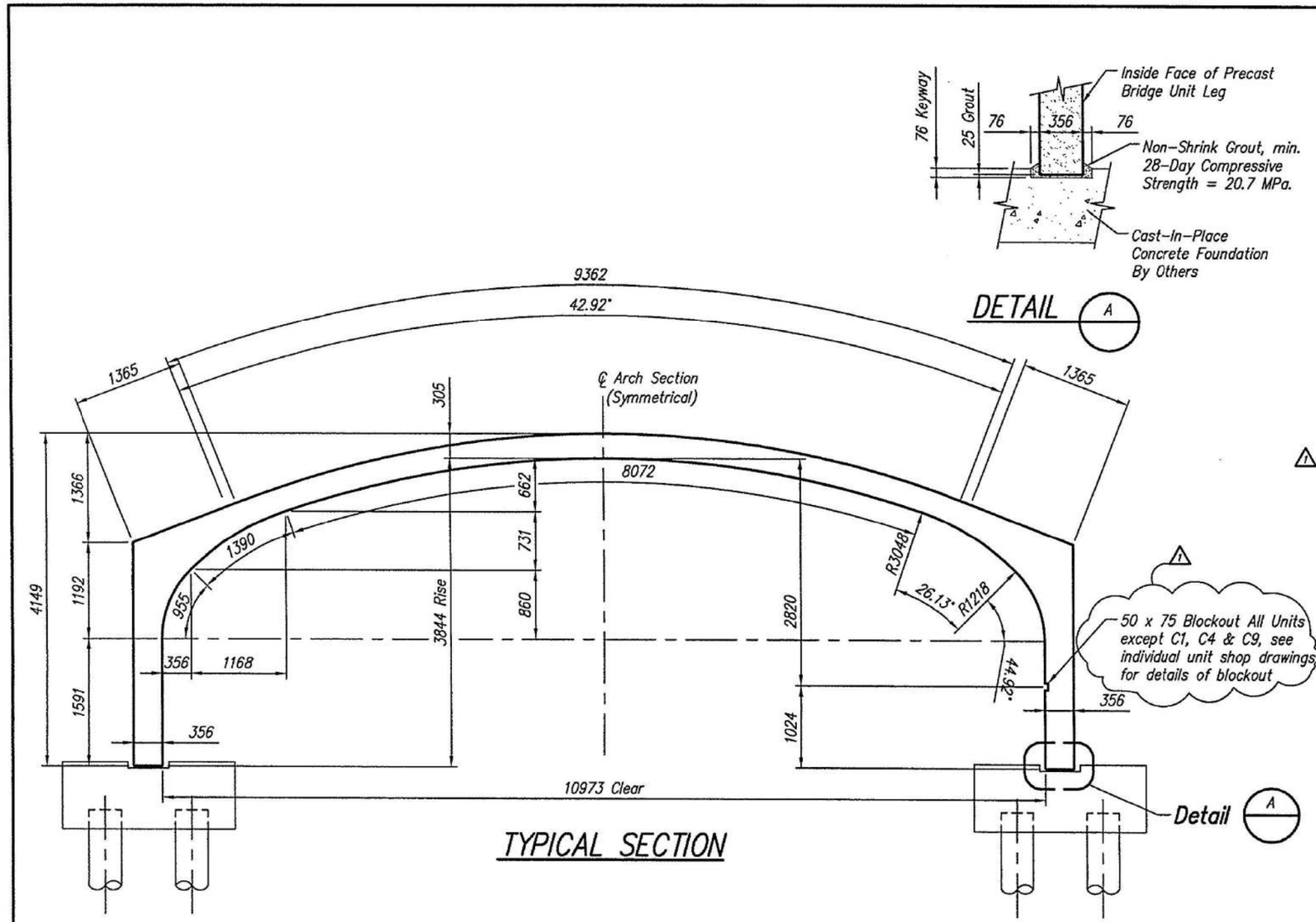

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Revisions:		
No.	Date	
1	8/16/02	
2		
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4		

Sheet Title: CROSS SECTION SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By: MGC	Job No. 8354
Drawn By: TRL	Sheet No. S2
Chk'd By: MGC	
Date: 5/31/02	

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1665460061

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	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (11 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-11 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1006
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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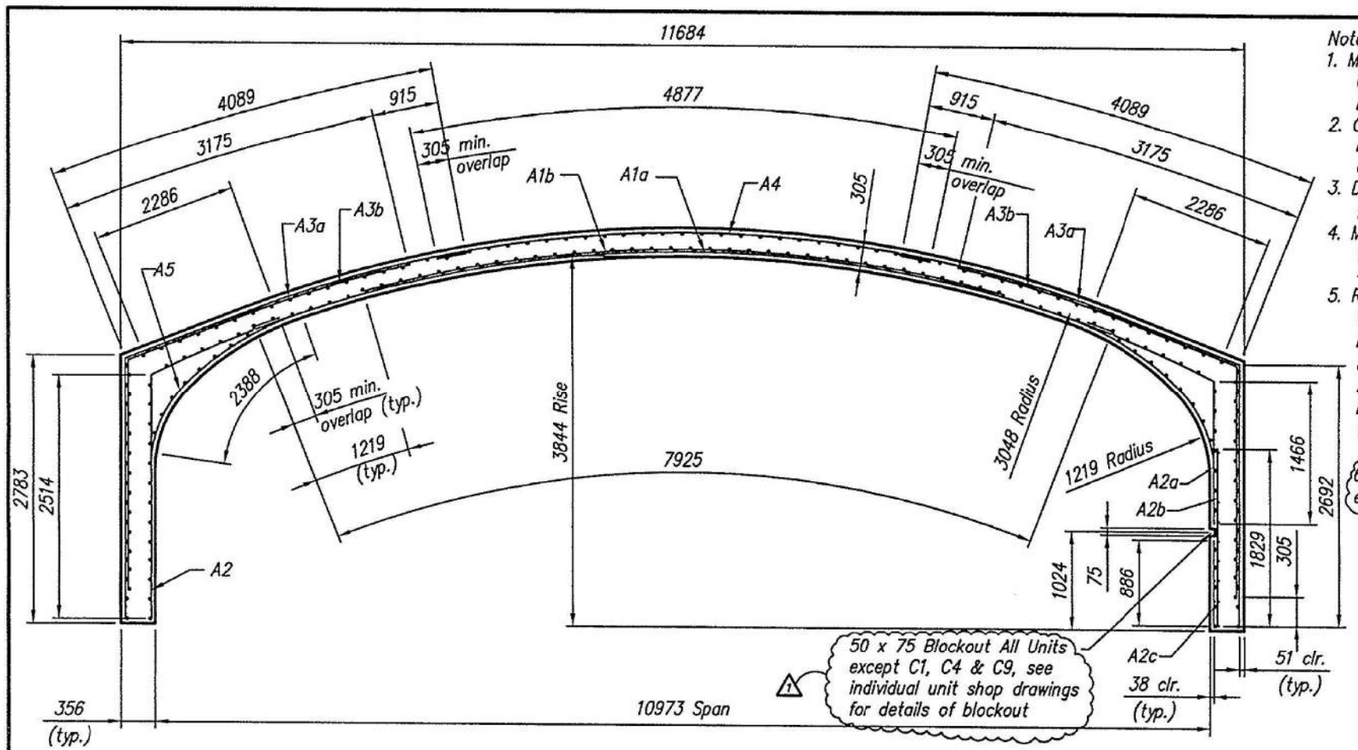

Notes:

1. *Minimum 28–Day Concrete Compressive Strength shall be 35.0 MPa.*
2. *Overlap Length shall be measured from last crosswire.*
3. *Dimensions shown are for form system "A".*
4. *Minimum yield strength for welded wire fabric shall be 448.0 MPa.*
5. *Reinforcing shall be limited to a maximum of three layers of reinforcing (WWF or bars) per area (A1a + A1b or A3b shall not have more than three layers total).*
6. *All reinforcing shall be epoxy coated.* (1)

Sheet no.	Circumferential Area Req'd (mm^2/m)	Longitudinal Area Req'd (mm^2/m)	Mesh Size	Length (m)	Circumferential Area Supl'd (mm^2/m)	Longitudinal Area Supl'd (mm^2/m)
1	A1a = 1270	275	51 x 152 – MW65 x MW42	7925		
2	A1b = 1270	148	51 x 152 – MW65 x MW23	5487		
3	A2 = 1016	275	51 x 152 – MW52 x MW42	4800		
4	A2a = 1016	275	51 x 152 – MW52 x MW42	3752		
5	A2b = 1016	275	51 x 152 – MW52 x MW42	1829		
6	A2c = 1016	275	51 x 152 – MW52 x MW42	886		
7	A3a = 1778	275	51 x 152 – MW91 x MW42	6781		
8	A3b = 1524	275	51 x 152 – MW78 x MW42	5561		
9	A4 = 1016	614	51 x 152 – MW52 x MW94	4877		
10	A5 = 1016	275	51 x 152 – MW52 x MW42	2388	(1)	

Design Loading: MS18 + 2.4 KN/m^2 Future Wearing Surface Cover = 484 min. east side @ ℄ \ (884) max. west side @ ℄

Note:

1) *All dimensions shown are in millimeters unless otherwise noted.*
2) *Typical reinforcing is shown on this sheet. For details of reinforcing at vertical block outs, lighting fixture housings and embedded junction boxes, see shop drawings for individual precast units.* (1)

1640092284
16654600062

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Revisions:

No.	Date
1	8/16/02
2	
3	
4	

Sheet Title: **PRECAST UNIT REINFORCEMENT SHOP DRAWING**

Producer: **EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618–548–1190**

CHICAGO ILLINOIS **SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST. STRUCT. NO. 016–6546 CDOT PROJECT NO. B–1–242**

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No. S3
Chk'd By: MGC	
Date: 5/31/02	

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (12 OF 50)
STRUCTURE NO. 016–6546
SHEET NO. SEX-12 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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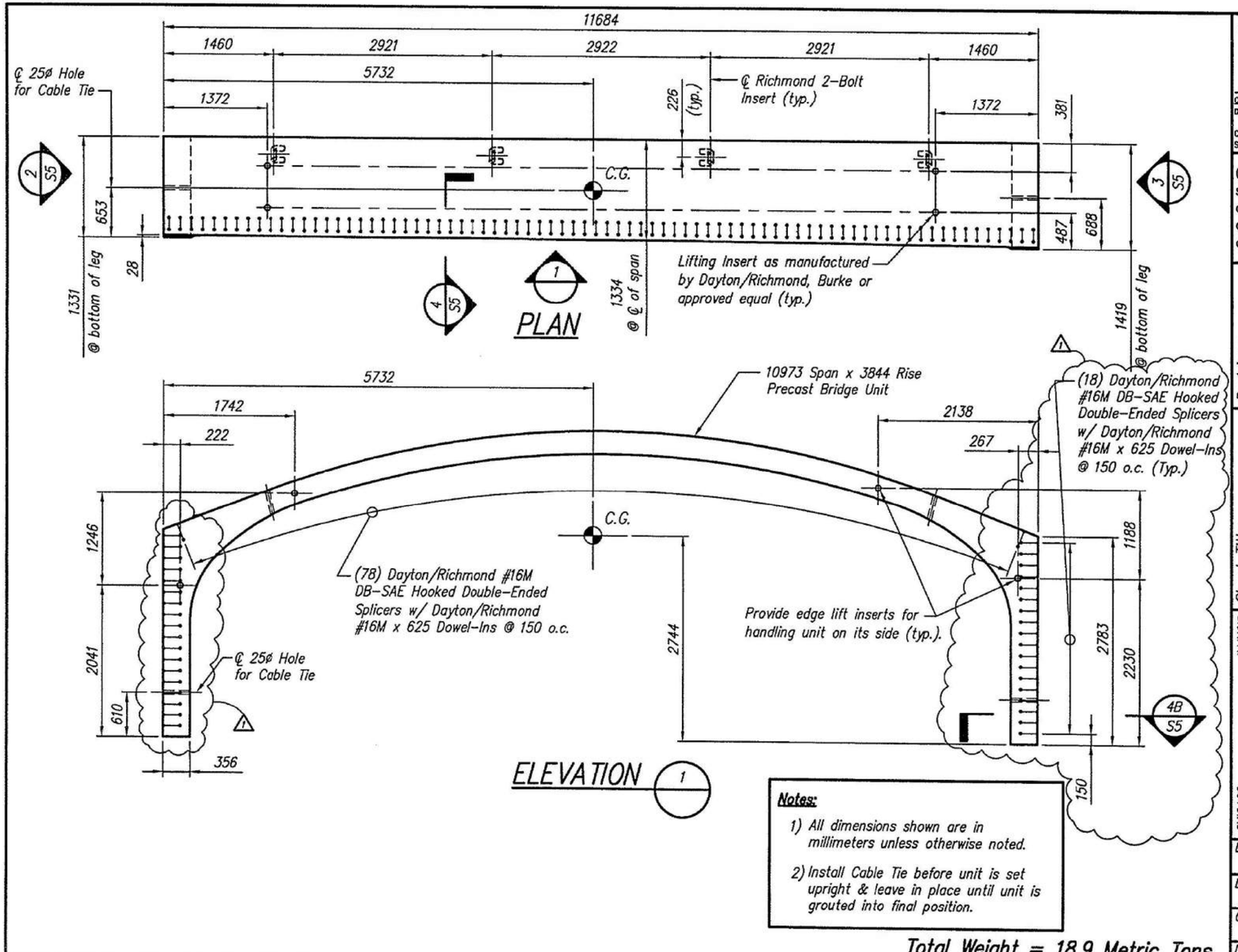
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				



Notes:

1) All dimensions shown are in millimeters unless otherwise noted.

2) Install Cable Tie before unit is set upright & leave in place until unit is grouted into final position.

Total Weight = 18.9 Metric Tons

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Sheet Title: **END UNIT - C1 SHOP DRAWING**

Producer: **EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190**

CHICAGO **SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST. STRUCT. NO. 016-6546 CDOT PROJECT NO. B-1-242**

Des. By: MGC	Job No. 8354
Drawn By: TRL	Sheet No. S4
Chk'd By: MGC	
Date: 5/31/02	

FILE NAME = ABC-sht-6546ex-013.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

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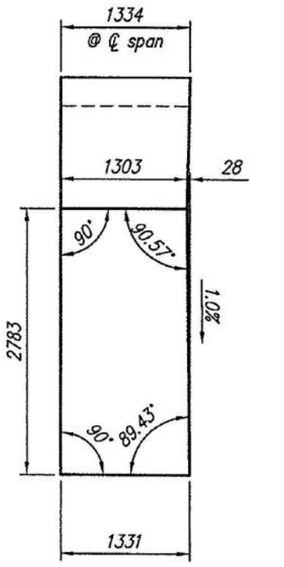
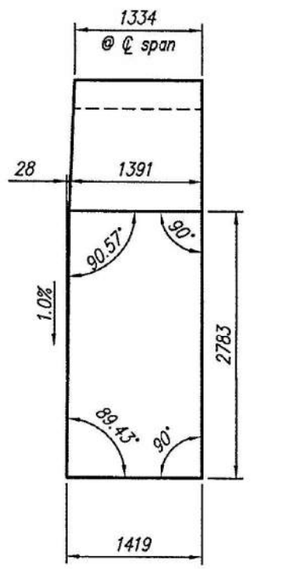
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (13 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-13 OF 50 SHEETS

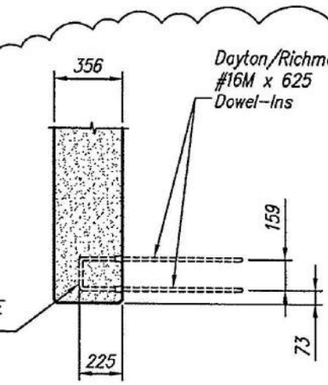
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1008
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				



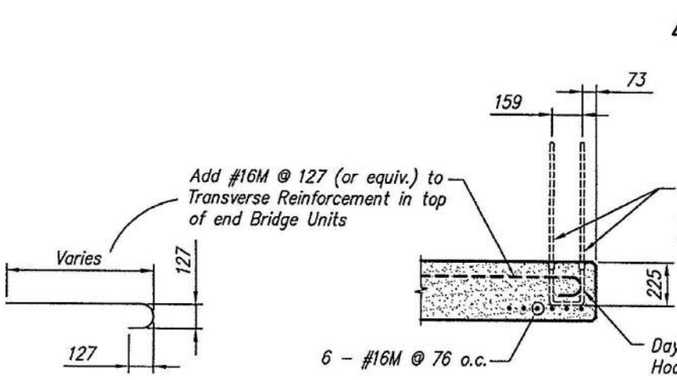
ELEVATION 2 / S4



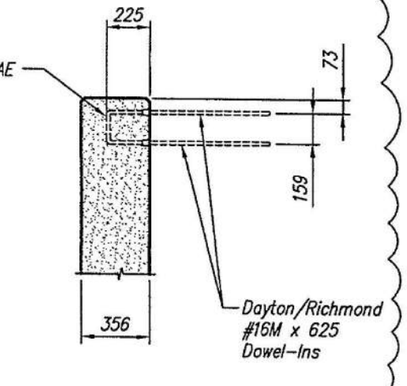
ELEVATION 3 / S4



SECTION 4B / S4



SECTION 4 / S4,S8



SECTION 4A / S8

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Sheet Title: SIDE ELEVATIONS - C1
SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO.
SALEM, ILLINOIS
618-548-1190

CHICAGO SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST. ILLINOIS
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By: MGC	Job No. 8354
Drawn By: TRL	Sheet No. S5
Chk'd By: MGC	
Date: 5/31/02	

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	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

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EXISTING PLANS (14 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-14 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1009
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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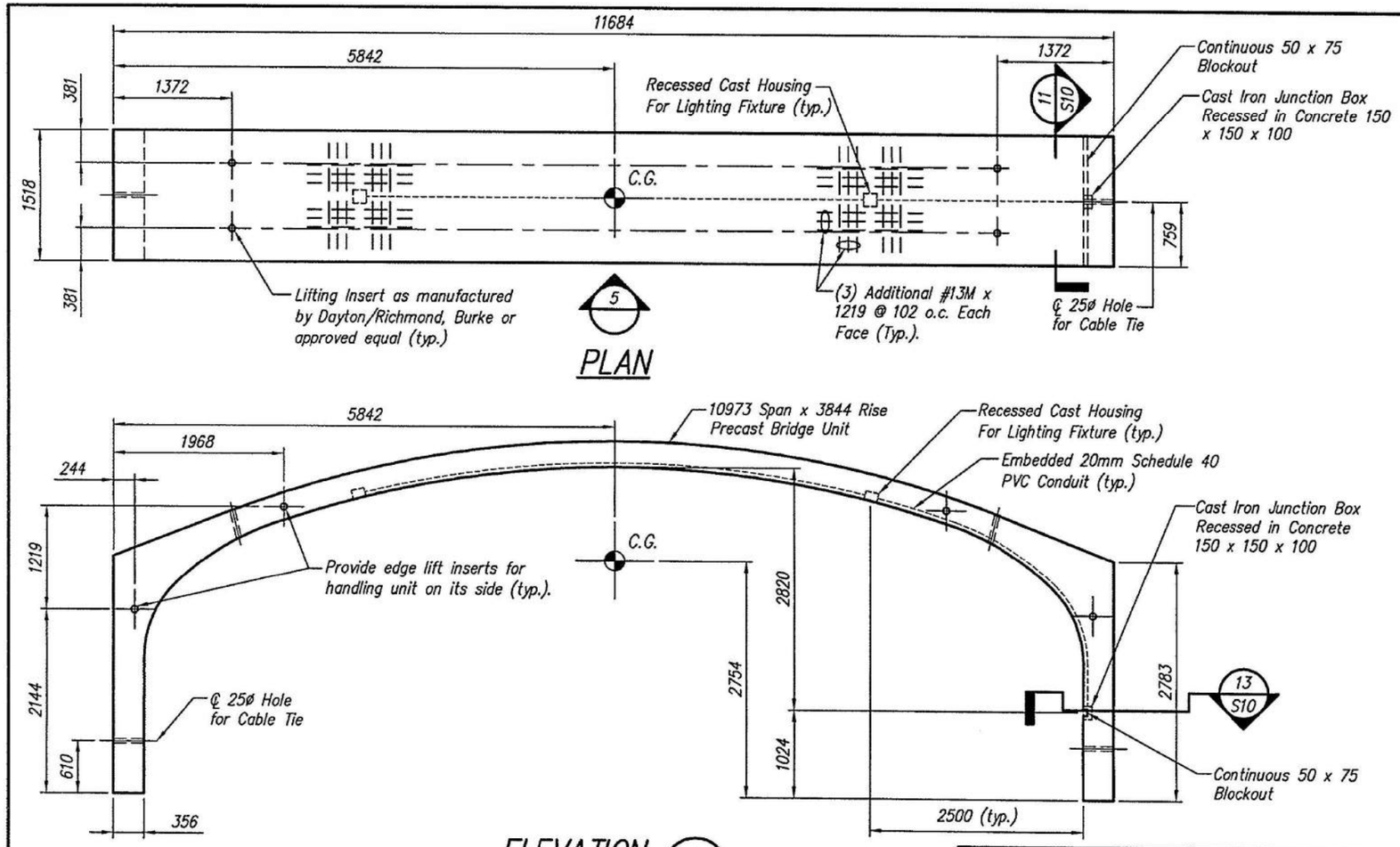

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.
2) Electrical Junction Box, Lighting Fixture Recessed Cast Housing (not entire fixture) & Embeded PVC conduit to be Supplied by EGYPTIAN CONCRETE CO.
3) Install Cable Tie before unit is set upright & leave in place until unit is grouted into final position.

Total Weight = 22.0 Metric Tons

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Sheet Title: **INTERIOR UNIT - C2 SHOP DRAWING**

Producer: **EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190**

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST. STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No.
Chk'd By: MGC	S6
Date: 5/31/02	

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (15 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-15 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1010
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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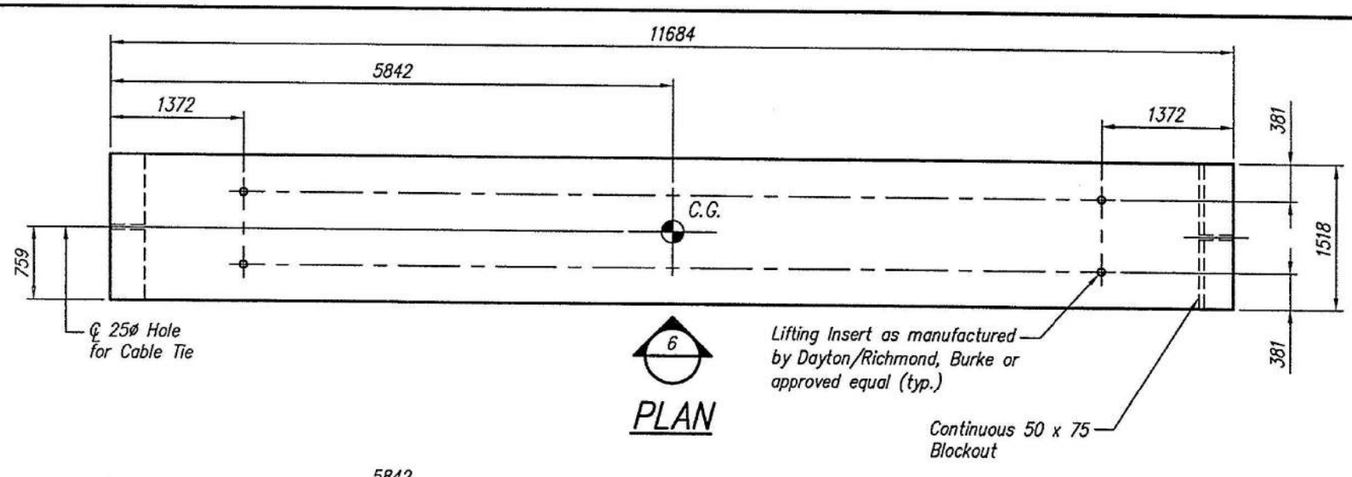
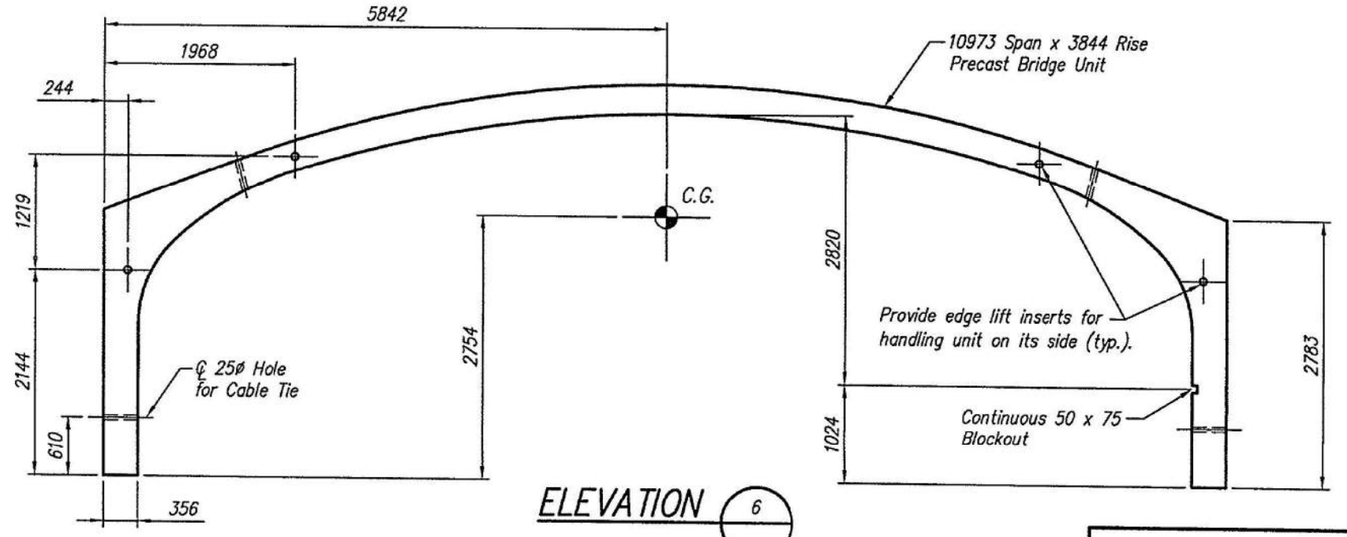


6

PLAN



ELEVATION 6

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.

2) Install Cable Tie before unit is set upright & leave in place until unit is grouted into final position.

Total Weight = 22.0 Metric Tons

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Sheet Title: **INTERIOR UNIT - C3 SHOP DRAWING**

Producer: **EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190**

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST. STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By: MGC	Job No. 8354
Drawn By: TRL	Sheet No. S7
Chk'd By: MGC	
Date: 5/31/02	

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EXISTING PLANS (16 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-16 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1011
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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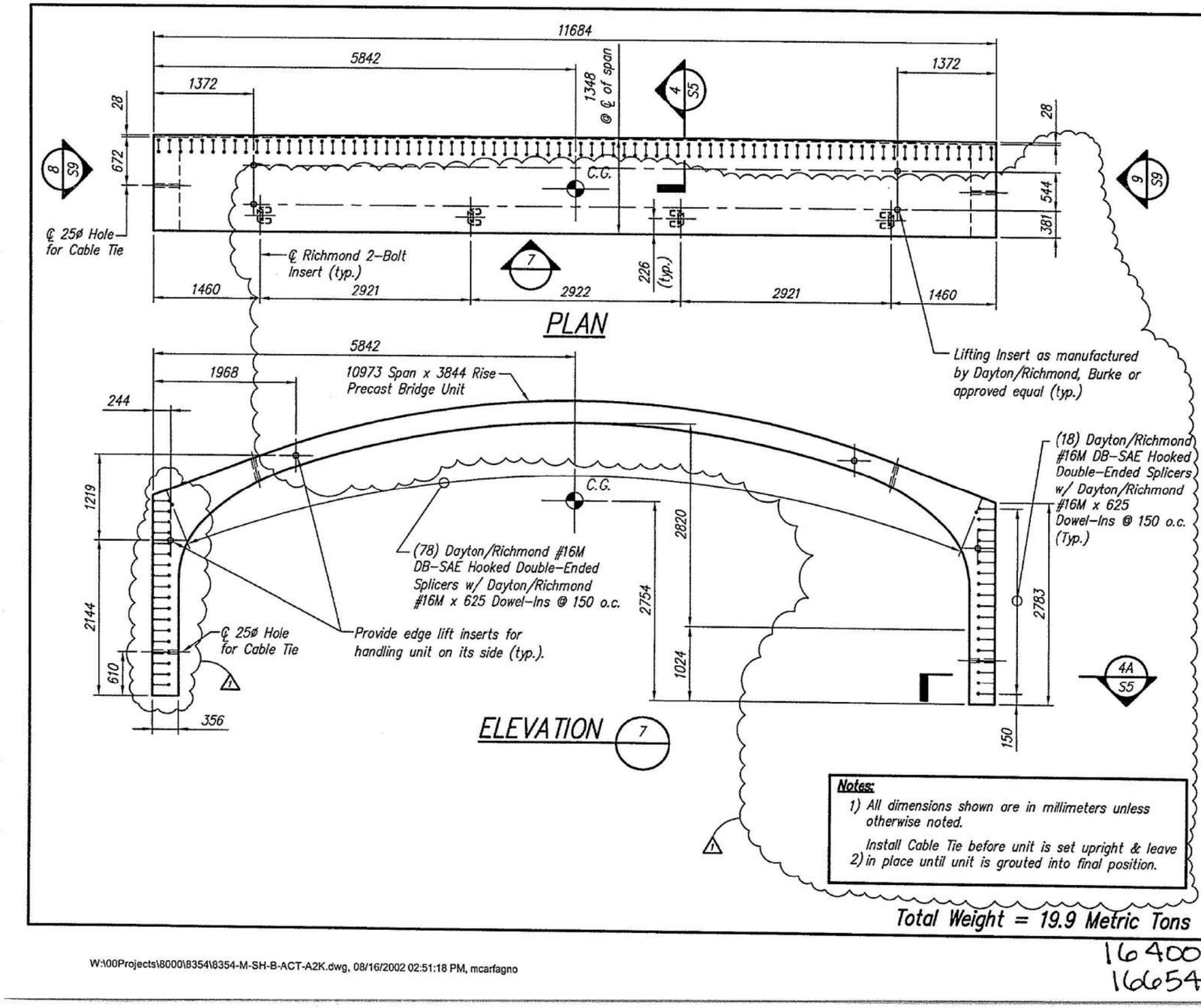

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Sheet Title: **END UNIT - C4 SHOP DRAWING**

Producer: **EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190**

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No. S8
Chk'd By: MGC	
Date: 5/31/02	

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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (17 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-17 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1012
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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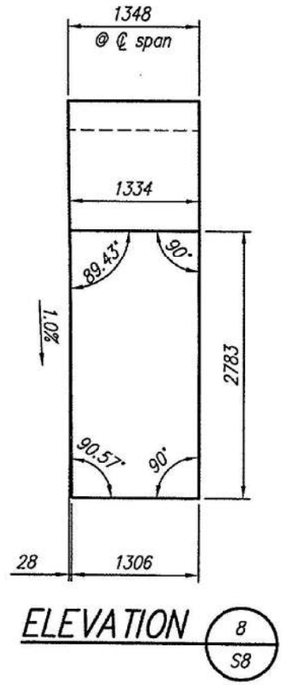
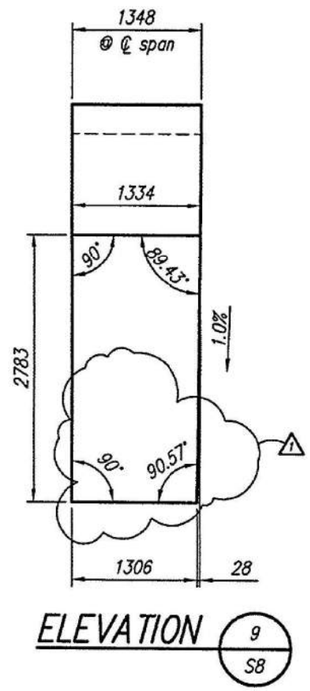


ELEVATION 8 / S8



ELEVATION 9 / S8

SECTION 10 / S11

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Sheet Title: SIDE ELEVATIONS - C4 SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR.
UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO.
B-1-242

Des. By: MGC	Job No. 8354
Drawn By: TRL	Sheet No. S9
Chk'd By: MGC	
Date: 5/31/02	

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EXISTING PLANS (18 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-18 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1013
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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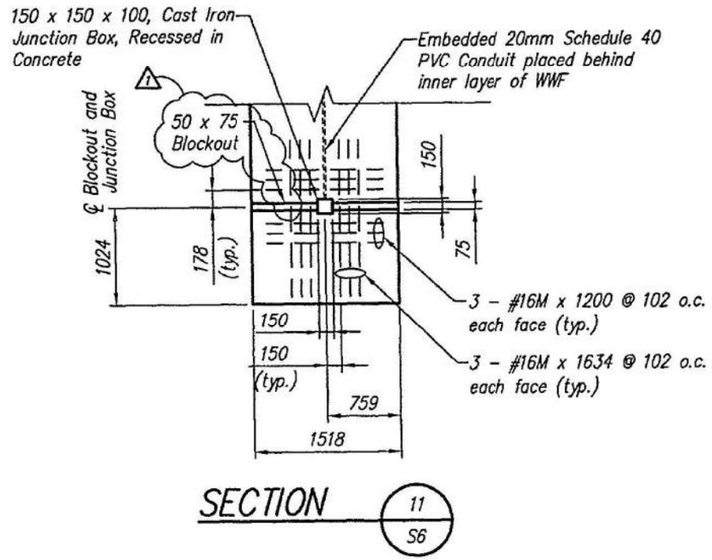
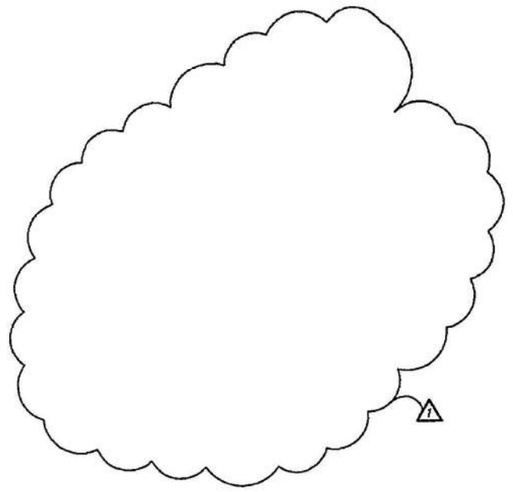
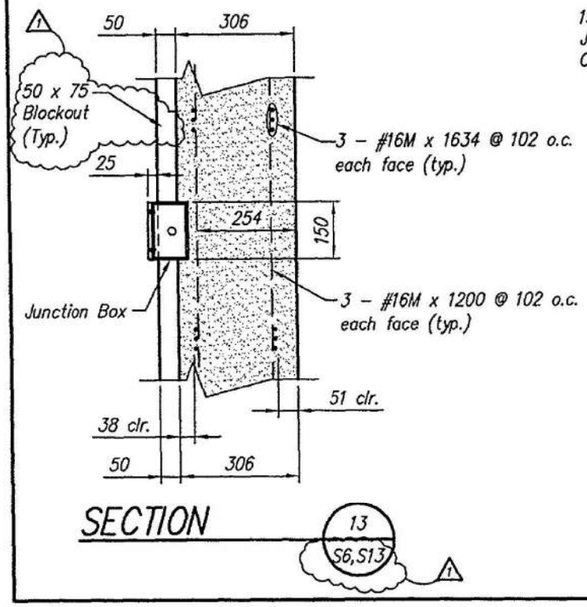
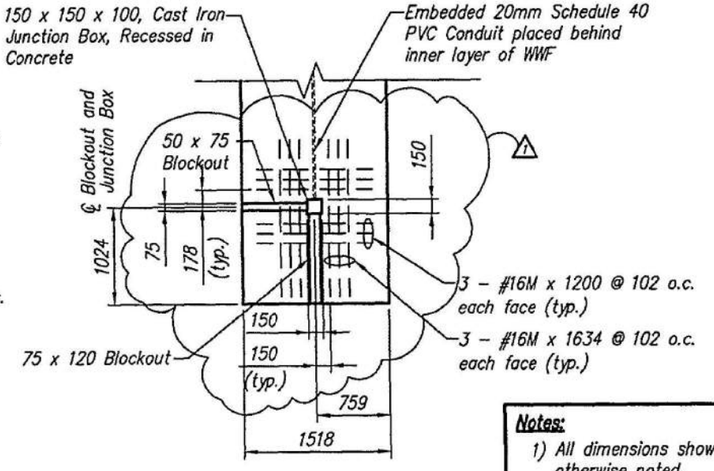


SECTION 11 / S6





SECTION 13 / S6,S13



SECTION 14 / S11

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.
2) Electrical Junction Box, Lighting Fixture Recessed Cast Housing (not entire fixture) & Embeded PVC conduit to be Supplied by EGYPTIAN CONCRETE CO.

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Sheet Title: SECTIONS AND DETAILS SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190

CHICAGO SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST. ILLINOIS
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No. S10
Chk'd By: MGC	
Date: 5/31/02	

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	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

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EXISTING PLANS (19 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-19 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1014
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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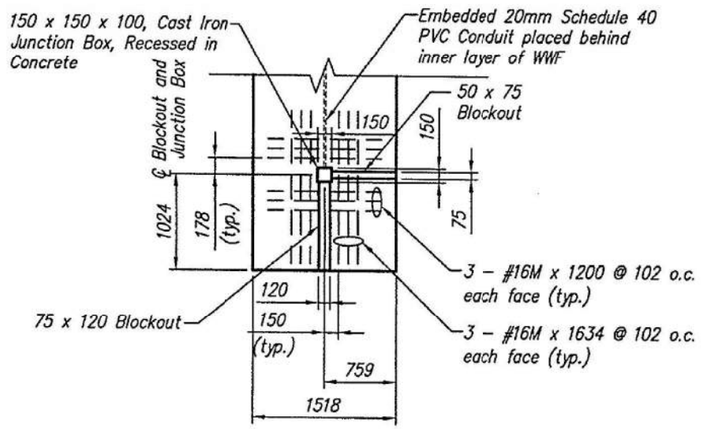
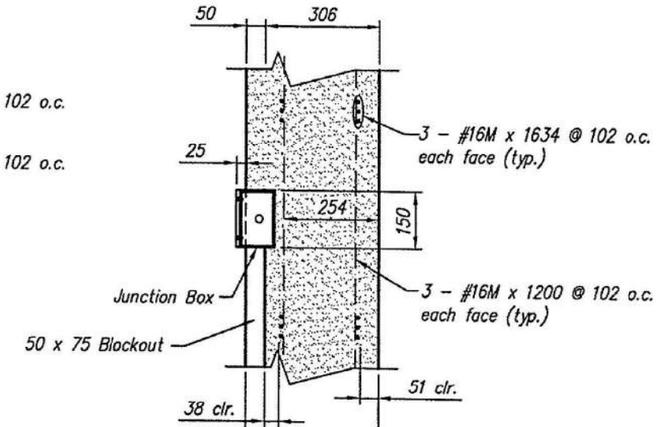
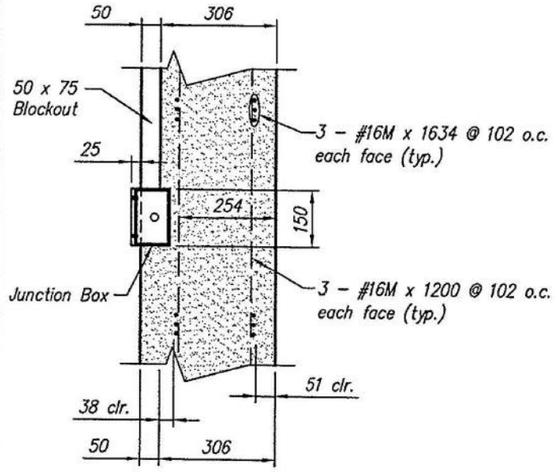


SECTION 12 / S16



SECTION 13B / S16



SECTION 13A / S11

All dimensions shown are in millimeters unless otherwise noted.

Electrical Junction Box, Lighting Fixture Recessed Cast Housing (not entire fixture) & Embeded PVC conduit to be Supplied by EGYPTIAN CONCRETE CO.

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Sheet Title: SECTIONS AND DETAILS SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No.
Chk'd By: MGC	S10A
Date: 8/126/02	

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1665460070

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (20 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-20 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1015
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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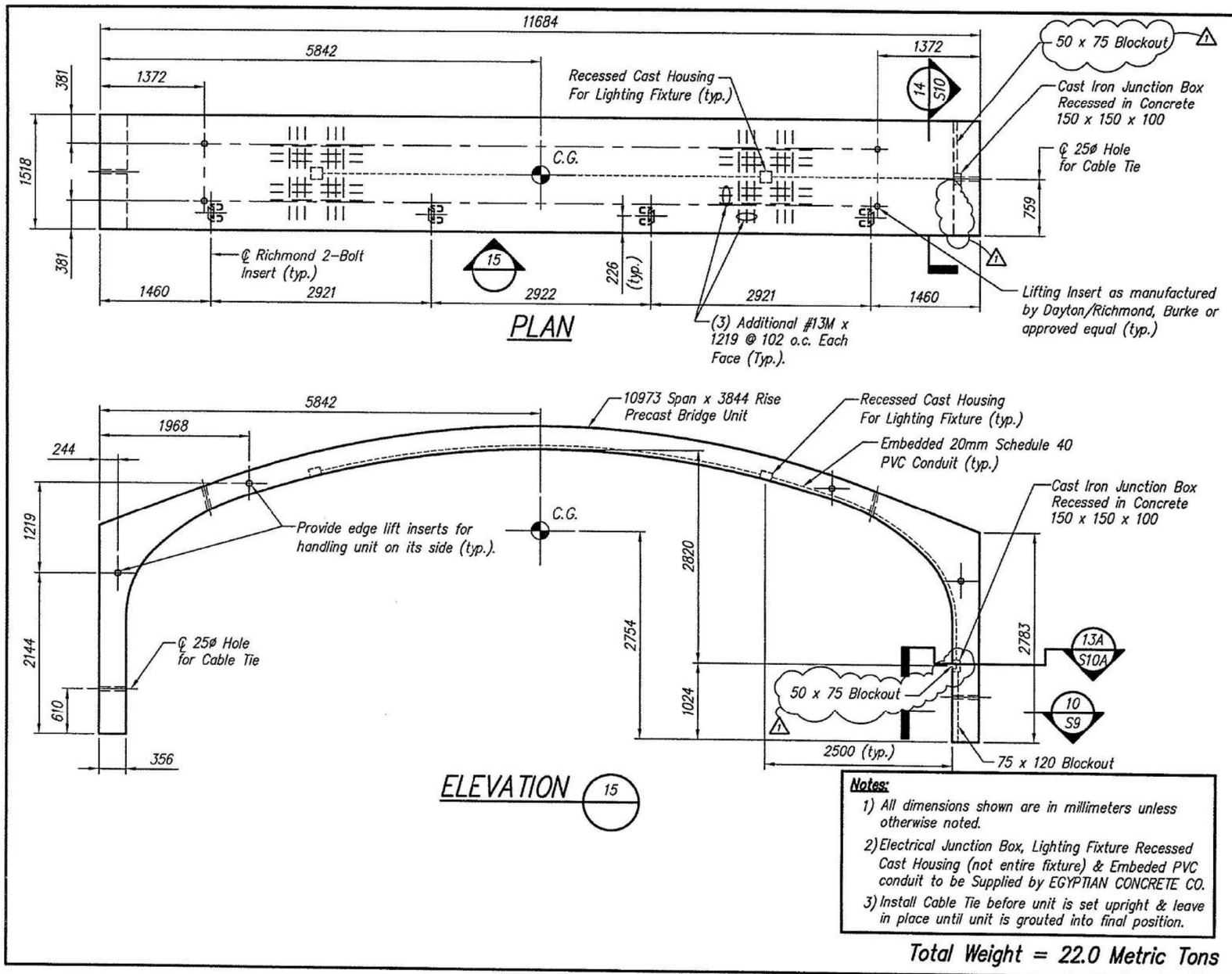

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.
2) Electrical Junction Box, Lighting Fixture Recessed Cast Housing (not entire fixture) & Embeded PVC conduit to be Supplied by EGYPTIAN CONCRETE CO.
3) Install Cable Tie before unit is set upright & leave in place until unit is grouted into final position.

Total Weight = 22.0 Metric Tons

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Sheet Title: INTERIOR UNIT - C5 SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR.
UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO.
B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No. S11
Chk'd By: MGC	
Date: 5/31/02	

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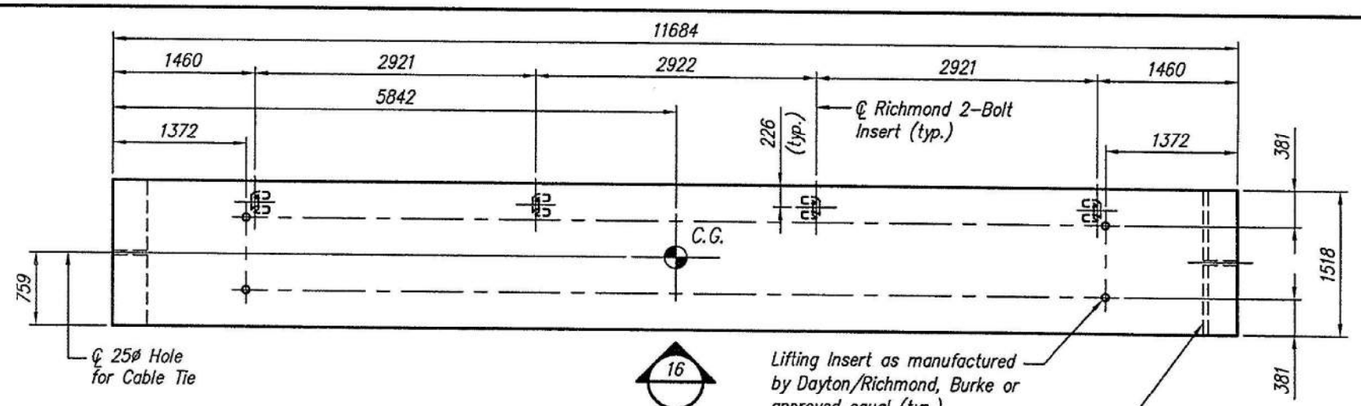
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (21 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-21 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1016
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				



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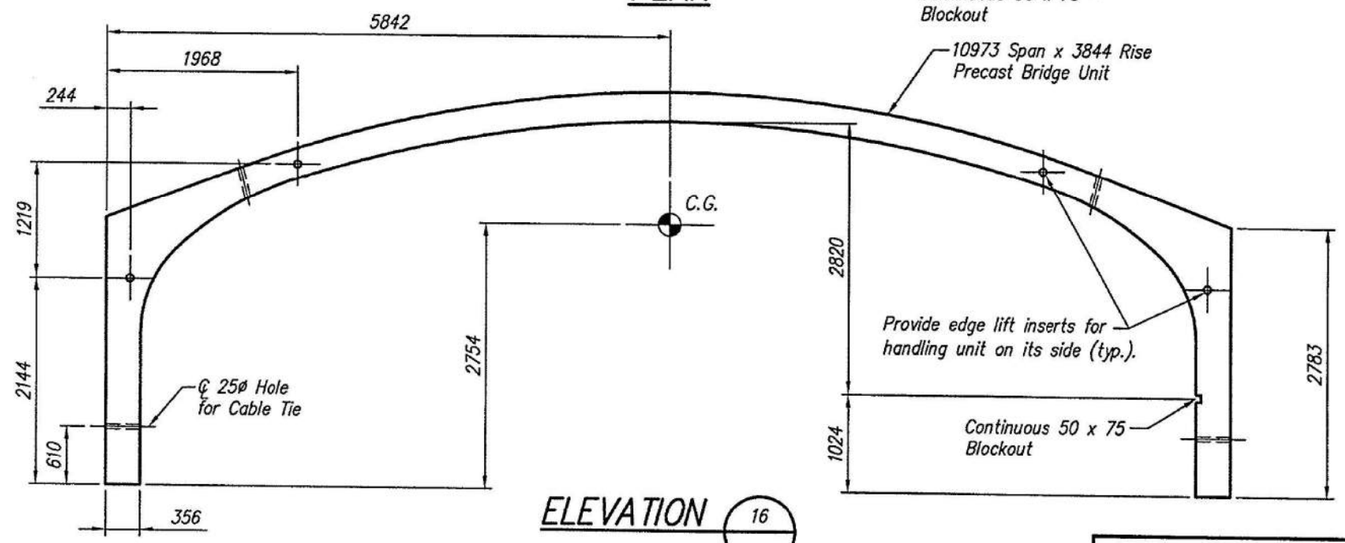
PLAN



ELEVATION 16

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.
2) Install Cable Tie before unit is set upright & leave in place until unit is grouted into final position.

Total Weight = 22.0 Metric Tons

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Sheet Title: INTERIOR UNIT - C6 SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By: MGC	Job No. 8354
Drawn By: TRL	Sheet No. S12
Chk'd By: MGC	
Date: 5/31/02	

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	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

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EXISTING PLANS (22 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-22 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1017
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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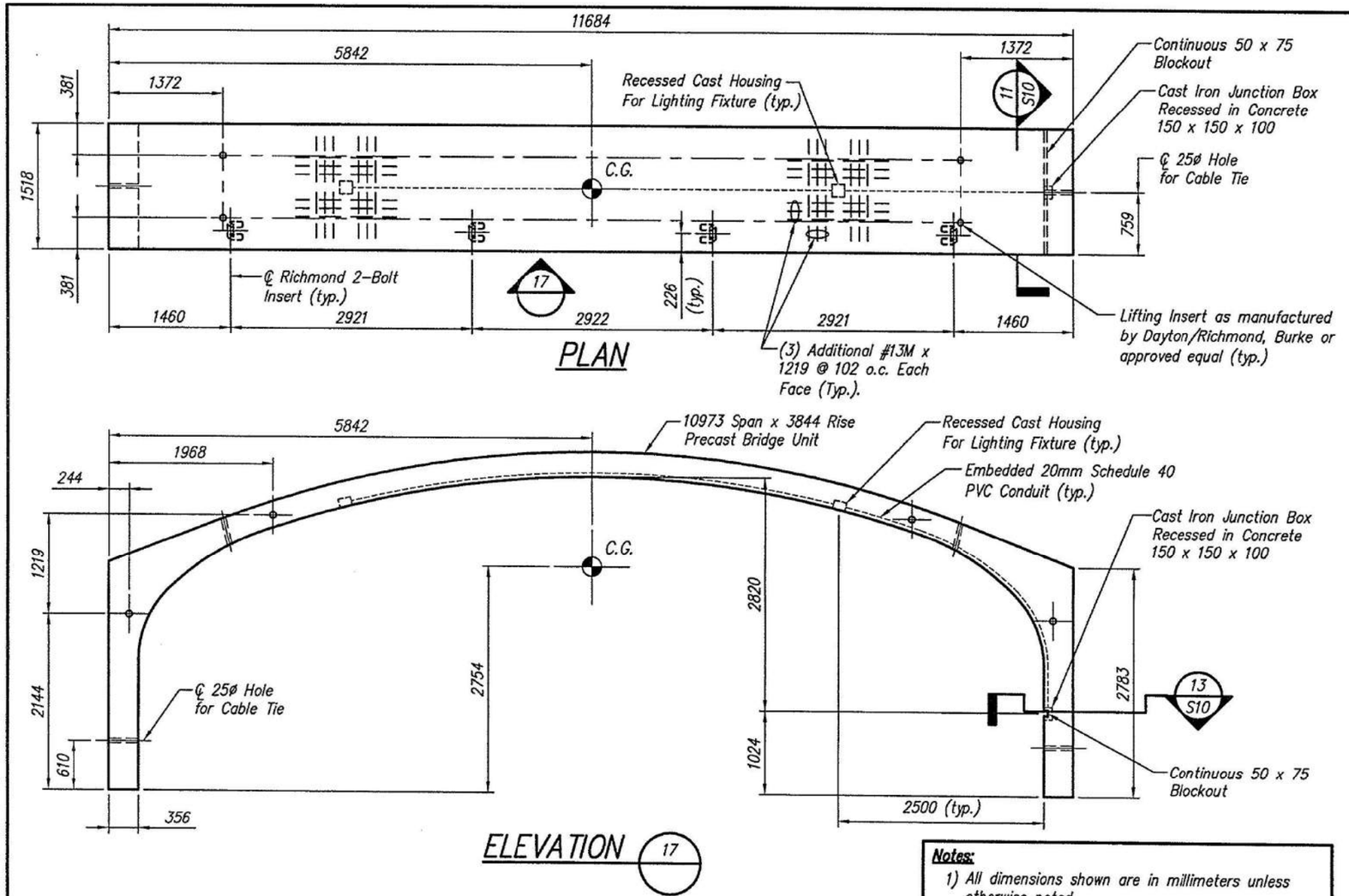

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.
2) Electrical Junction Box, Lighting Fixture Recessed Cast Housing (not entire fixture) & Embeded PVC conduit to be Supplied by EGYPTIAN CONCRETE CO.
3) Install Cable Tie before unit is set upright & leave in place until unit is grouted into final position.

Total Weight = 22.0 Metric Tons

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Sheet Title: **INTERIOR UNIT - C7 SHOP DRAWING**

Producer: **EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190**

CHICAGO ILLINOIS **SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST.**

STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No.
Chk'd By: MGC	S13
Date: 5/31/02	

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	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (23 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-23 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1018
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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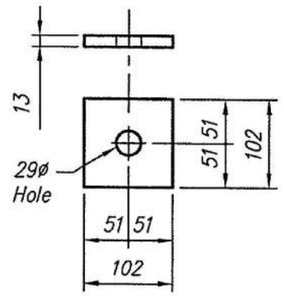
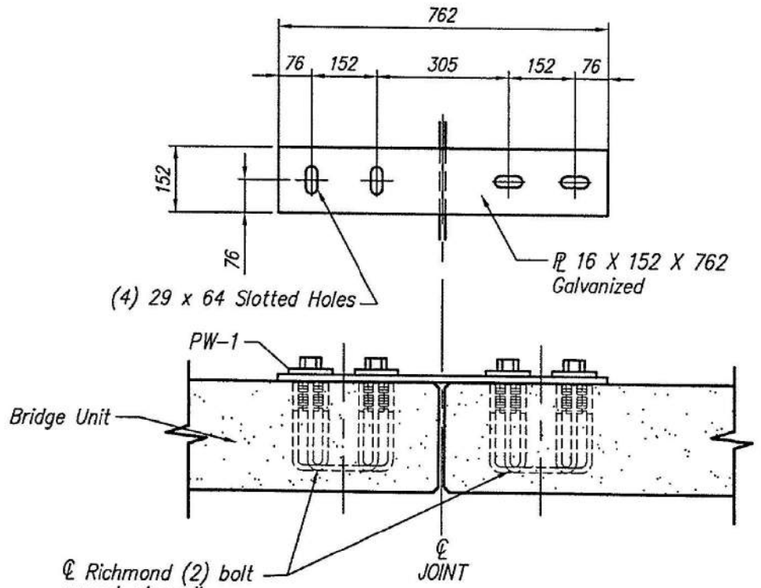
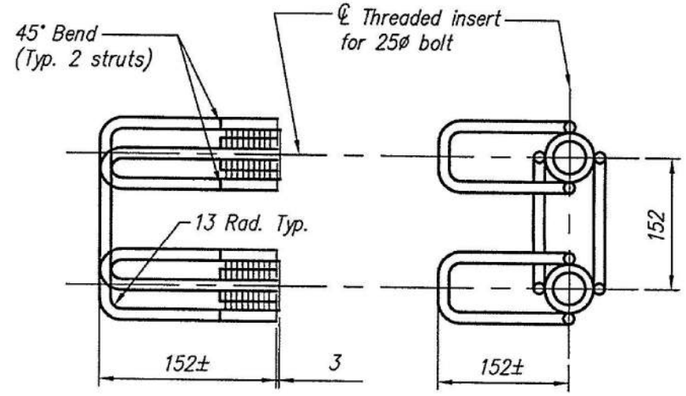


PW-1

(℄ washer, 13 x 102 x 102)
(4) per connection
(Galvanized as per ASTM A153)



DETAIL 18/S1



Side View

Front View

Richmond Two-Bolt Preset Wingwall Anchor

NOTES:

1. Structural steel for tie plate shall be ASTM A709 Grade 36 and shall be Galvanized as per ASTM A153.
2. Bolts and threaded rods shall be ASTM A325. All bolts, threaded rods and nuts shall be mechanically zinc coated in accordance with ASTM B 695 Class 50.

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Sheet Title: END UNIT TIE PLATE SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, IL. 618-548-1190

SOUTH LAKE SHORE DR.
UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO.
B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: MGC	Sheet No. S14
Chk'd By: MGC	
Date: 5/31/02	

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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (24 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-24 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1019
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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15. CONSTRUCTION REQUIREMENTS

15.1 *Footings – The bridge units and wingwalls shall be installed on either precast or cast–in–place concrete footings. The design size and elevation of the footings shall be as determined by the Engineer. A 75 mm deep keyway shall be formed in the top surface of the bridge footing 75 mm clear of the inside and outside faces of the bridge units, unless specified otherwise on the plans. No keyway is required in the wingwall footings, unless otherwise specified on the plans. The footings shall be given a smooth float finish and shall reach a compressive strength of 13.8 MPa before placement of the bridge and wingwall elements. The completed footing surface shall be constructed in accordance with grades shown on the plans. When tested with a 3–meter straight edge, the surface shall not vary more than 5 mm in 3 meters. If a precast concrete footing is used, the contractor shall prepare a 4 inch thick base layer of compacted granular material the full width of the footing prior to placing the precast footing.*

15.2 *Placement of the Bridge Units, Wingwalls, and Headwalls – The bridge units, wingwalls, and headwalls shall be placed as shown on the Engineer's plan drawings. Special care shall be taken in setting the elements to the true line and grade. The bridge units and wingwalls shall be set on 150 X 150 mm masonite or steel shims. A minimum of 15 mm gap shall be provided between the footing and the bottom of the bridge's vertical legs or the wingwall. The gap shall be filled with cement grout (Portland cement and water or cement mortar composed of one part Portland cement and three parts of sand, by volume, and water.)*

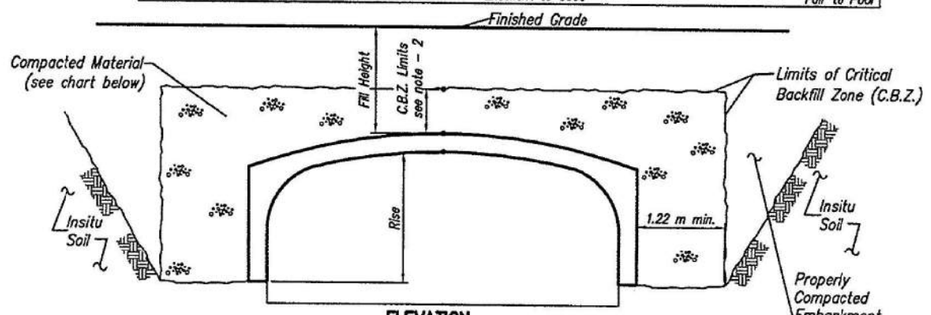
15.3 *External Protection of Joints – The butt joint made by two adjoining bridge units shall be covered with a 22 mm x 35 mm preformed bituminous joint sealant and a minimum of a 230 mm wide joint wrap. The surface shall be free of dirt before applying the joint material. A primer compatible with the joint wrap to be used shall be applied for a minimum width of 230 mm on each side of the joint. The external wrap shall be either EZ–WRAP RUBBER by PRESS–SEAL GASKET CORPORATION, SEAL WRAP by MAR MAC MANUFACTURING CO. INC. or approved equal. The joint shall be covered continuously from the bottom of one bridge section leg, across the top of the arch and to the opposite bridge section leg. Any laps that result in the joint wrap shall be a minimum of 150 mm long with the overlap running downhill.*

In addition to the joints between bridge units, the joint between the end bridge unit and the headwall shall also be sealed as described above. If precast wingwalls are used, the joint between the end bridge unit and the wingwall shall be sealed with a 610 mm strip of filter fabric. Also, if lift holes are formed in the arch units, they shall be primed and covered with a 230 x 230 mm square of joint wrap.

During the backfilling operation, care shall be taken to keep the joint wrap in its proper location over the joint.

15.4 *Backfill – Backfill shall be considered as all replaced excavation and new embankment adjacent to the CON/SPAN bridge units, wingwalls, and headwalls. The project construction and material specifications which include the specifications for excavation for structures and roadway excavation and embankment construction, shall apply except as modified in this section.*
No backfill shall be placed against any structural elements until they have been approved by the Engineer.
Backfill against a waterproofed surface shall be placed carefully to avoid damage to the waterproofing material.
Mechanical tampers or approved compacting equipment shall be used to compact all backfill and embankment immediately adjacent to each side and over the top of each bridge unit until it is covered to a minimum depth of 305 mm, unless the design fill height is less than 305 mm. The backfill within the Critical Backfill Zone (shown in the diagrams below) shall be placed in lifts of 205 mm or less (loose depth). Heavy compaction equipment shall not be operated in this area or over the bridge until it is covered to a depth of 305 mm, unless the design fill height is less than 305 mm.
Lightweight dozers and graders may be operated over bridge units having 305 mm of compacted cover, but heavy earth moving equipment (larger than a D–4 Dozer weighing in excess of 10.9 Tonnes and having track pressures of 33kPa or greater) shall require 610 mm of cover unless the design cover is less than two feet. In no case shall equipment operating in excess of the design load (MS18 or MS22.5) be permitted over the bridge units unless approved by CON/SPAN.
Any additional fill and subsequent excavation required to provide this minimum cover shall be made at no additional cost to the project.
As a precaution against introducing unbalanced stresses in the bridge, when placing backfill at no time shall the difference between the heights of fill on opposite sides of the bridge exceed 610 mm.
Backfill in front of wingwalls shall be carried to ground lines shown in the plans.
For fill heights over 3.7 meters, no backfilling may begin until a backfill compaction testing plan has been coordinated with and approved by CON/SPAN Bridge Systems. Cost of the backfill compaction testing shall be included in the cost of the precast units. This included cost applies only to projects with fill heights over 3.7 meters (as measured from top crown of arch to finished grade).

BACKFILL DESCRIPTION							
Group Classification	A–1		A–3	A–2				A–4
	A–1–a	A–1–b		A–2–4	A–2–5	A–2–6	A–2–7	
Sieve Analysis, Percent Passing								
No. 10	50 max.							
No. 40	30 max.	50 max.	51 min.					
No. 200	15 max.	25 max.	10 max.	35 max.	35 max.	35 max.	35 max.	36 min.
Characteristics of Fraction Passing No. 40								
Liquid Limit				40 max.	41 min.	40 max.	41 min.	40 max.
Plasticity Index	6 max.		N.P.	10 max.	10 max.	11 min.	11 min.	10 max.
Usual Types of Significant Constituent Materials	Stone Fragments, Gravel & Sand		Fine Sand	Silty or Clayey Gravel and Sand				Silty Soils
General Rating as Subgrade	Excellent to Good							Fair to Poor



ELEVATION

NOTES
1. SEE CON/SPAN SPECIFICATIONS SECTION 15.4 FOR BACKFILL SPECIFICATIONS.
2. FOR FILL HEIGHTS GREATER THAN 610 mm, C.B.Z. LIMIT SHALL BE 610 mm ABOVE ARCH CROWN. FOR FILL HEIGHTS LESS THAN 610 mm, THE FINISHED GRADE SHALL BE THE BOUNDARY LINE FOR THE C.B.Z.
3. BACKFILLING OPERATIONS WITHIN THE C.B.Z. SHALL BE PERFORMED IN LIFTS OF 205 mm OR LESS (LOOSE DEPTH).
4. MAXIMUM DRY DENSITY SHALL BE DETERMINED BY AASHTO T–99 OR OTHER APPROVED METHODS.
5. BACKFILL SHALL BE COMPACTED IN LAYERS UNTIL THE DENSITY IS NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY.

SPAN	FILL HEIGHT	ACCEPTABLE MATERIAL INSIDE C.B.Z.	ACCEPTABLE MATERIAL OUTSIDE C.B.Z.
≤ 7.3 m	≥ 3.7 m	A1, A3	**
≤ 7.3 m	< 3.7 m	A1, A2, A3, A4	**
> 7.3 m	ALL	A1, A3	**

** EMBANKMENT MATERIAL PER PROJECT SPECIFICATIONS

BACKFILL REQUIREMENTS

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Sheet Title: END UNIT TIE PLATE SHOP DRAWING

Producer: EGYPTIAN CONCRETE CO. SALEM, IL 618–548–1190

SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST. STRUCT. NO. 016–6546 CDOT PROJECT NO. B–1–242

Des. By: MGC	Job No. 8354
Drawn By: MGC	Sheet No. S15
Chk'd By: MGC	
Date: 5/31/02	

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DIVISION OF ENGINEERING

EXISTING PLANS (25 OF 50)
STRUCTURE NO. 016–6546
SHEET NO. SEX–25 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17–B7203–00–ES	COOK	1434	1020
CDOT PROJECT NO. B–7–203		SN 016–6546		
ILLINOIS FED. AID PROJECT				

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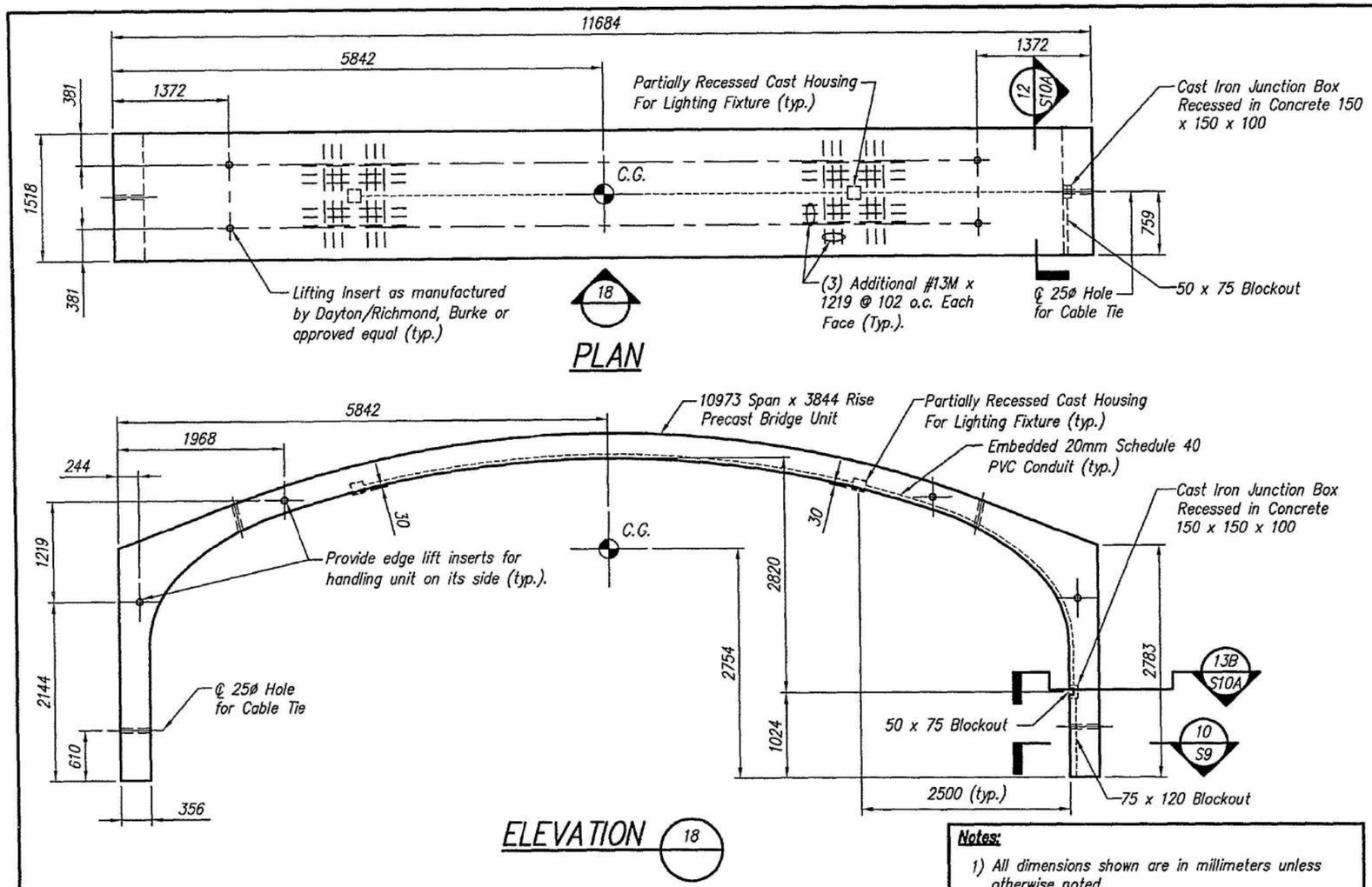

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.
2) Electrical Junction Box, Lighting Fixture Recessed Cast Housing (not entire fixture) & Embeded PVC conduit to be Supplied by EGYPTIAN CONCRETE CO.
3) Install Cable Tie before unit is set upright & leave in place until unit is grouted into final position.

Total Weight = 22.0 Metric Tons

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Sheet Title: **INTERIOR UNIT – C8 SHOP DRAWING**

Producer: **EGYPTIAN CONCRETE CO. SALEM, ILLINOIS 618-548-1190**

CHICAGO ILLINOIS
SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No.
Chk'd By: MGC	S16
Date: 8/16/02	

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DIVISION OF ENGINEERING

EXISTING PLANS (26 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-26 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1021
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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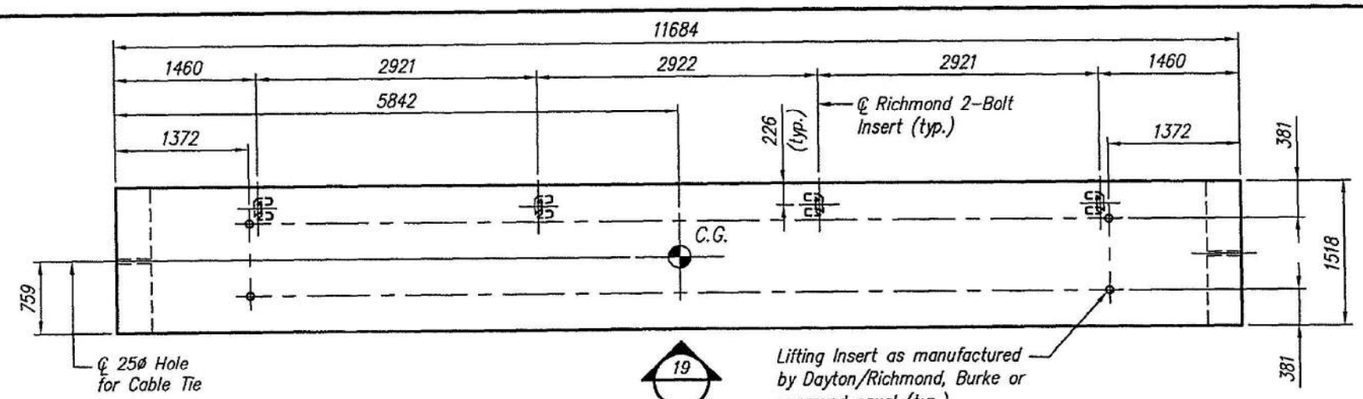

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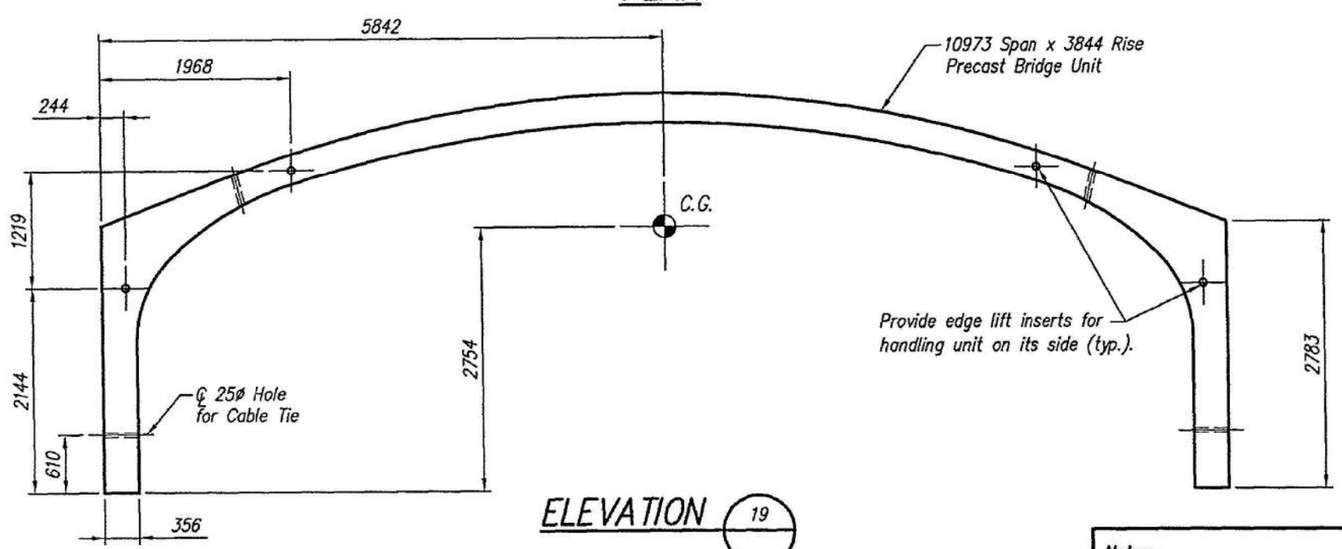
PLAN



ELEVATION 19

Notes:

1) All dimensions shown are in millimeters unless otherwise noted.

2) Install Cable Tie before unit is set upright & leave in place until unit is grouted into final position.

Total Weight = 22.0 Metric Tons

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Sheet Title: INTERIOR UNIT - C9 SHOP DRAWING

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CHICAGO ILLINOIS
SOUTH LAKE SHORE DR. UNDERPASS AT 63RD ST.
STRUCT. NO. 016-6546
CDOT PROJECT NO. B-1-242

Des. By:	Job No.
MGC	8354
Drawn By: TRL	Sheet No.
Chk'd By: MGC	S17
Date: 8/16/02	

W:\00Projects\8000\8354\8354-M-SH-B-ACT-A2K.dwg, 08/16/2002 02:10:19 PM, mcarfagno

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-027.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (27 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-27 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1022
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS	FED. AID PROJECT			

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SOUTH LAKE SHORE DRIVE IMPROVEMENTS
57th St. UNDERPASS WALL IMPROVEMENTS
CHICAGO, ILLINOIS

NOTES

1. Unless otherwise noted on the approved drawings, General Contractor approval indicates all building conditions (column centerlines, steel framing, floor and roof elevations, foundation walls and grade beams, and dimensions) are in accordance with the Contract Documents.
2. Lombard Precast Products (LPP) is not responsible for the design adequacy, strength, nor deflection of the supporting structural steel frame, nor for the adequacy of the cast-in-place concrete, nor for their deviation from the conditions shown on the Contract Documents.
3. Architect/Engineer approval indicates acceptance of panel sizes & shapes, exposed finishes, conformance with aesthetic requirements, and verification of the structural frame adequacy to receive loads imposed by the precast concrete panels and connections.
4. LPP is not responsible for coordinating the precast concrete work with other trades. It is the responsibility of the General Contractor to have all trades inform LPP of anything they require of the precast concrete.
5. Minimum concrete compressive strength:
   f'c = 5,000 psi @ 28 days
   f'ci = 2,500 psi @ stripping
   Air Content: 4% < % Air < 6%
6. Use ASTM A615-Grade 60 reinforcing bars.
   Use ASTM A706-Grade 60 reinforcing bars to be welded.
   Use ASTM A36 Structural shapes.
   Use ASTM A283-Grade C hot-rolled carbon steel plates.
   Use ASTM A185 Welded wire fabric.
7. Use E70XX electrodes for all welding.
   Use E90XX electrodes for all rebar welding.
8. All loose and cast-in mild steel shall be stainless steel.
9. All threaded bolts & inserts shall be stainless steel. All bolts shall be SAE Grade 5.
10. Touch up all field welds with rust inhibitive paint.
11. Minimum of 1-1/2" cover for reinforcing steel.

ERECTOR NOTE DIMENSION CHART AND CLOUDED NUMBERS IN LOWER CORNER OF PANELS FOR PANELS PLACEMENT. CHART GIVES DIMENSION FROM BACK OF PANEL TO CIP WALLS. CLOUDED DIMENSIONS GIVE DIMENSION FROM BACK OF PRECAST PANEL PANEL AT BOTTOM TO EXTERIOR FACE OF SHEETING. ALL DIMENSIONS ARE BASED UPON SUPPLIED SURVEY LAYOUT.

CONTRACTOR PLEASE VERIFY OFFSETS FROM NEW PRECAST TO EXISTING PRECAST @ UNDERPASS, AND TO EXISTING STRUCTURES SUCH AS CIP BARRIER WALLS, PAVEMENT, AND SHEET PILE WALLS. CAPS SHOULD BE FIELD MEASURED TO ENSURE PROPER FIT. VERIFY ALL DIMS WITH REGUARDS TO SHEETING TO ENSURE SURVEY DWG PROVIDED MATCHES THE EXISTING STUCTURE.

FINISHES

- (E) – Approved Finish per sample
- (ST) – Smooth Trowel
- (SF) – Smooth Form
- (F) – Smooth Float

CONNECTIONS

- ▲ Load Support w/o shims
- ◭ Load Support w/ shims
- ● Lateral Connection
- ◆ Panel to Panel tie
- ◈ Panel to Panel w/ shims
- ■ Load Support to adjacent panel
- ❙ Pin Connection w/o shims
- ✚ Pin Connection w/ shims

DRAWING INDEX

RECORD SHOP DRAWINGS

AS-BUILT

16665420065
16665430054 16665450041
16665490029 16665460035

1640092024

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT SOUTH LAKE SHORE DRIVE RENOVATIONS & IMPROVEMENTS CHICAGO, ILLINOIS
ARCHITECT CTE ENGINEERING
CONTRACTOR WALSH CONSTRUCTION

REVISIONS	
NO.	REVISION
1	UPDATED 12-2-03
2	UPDATED 12-16-03
3	UPDATED 2-4-04
4	UPDATED 2-16-04
5	UPDATED 4-20-04
6	UPDATED 2-16-05
7	FOR CONSTRUCTION 3-11-05
8	UPDATED 4-4-05

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	11-12-03
CHKD	DATE
RTD	11-12-03

JOB NO. 3010
SHEET NO. E1.0 OF
#0322

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FILE NAME = ABC-sht-6546ex-028.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
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	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (28 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-28 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1023
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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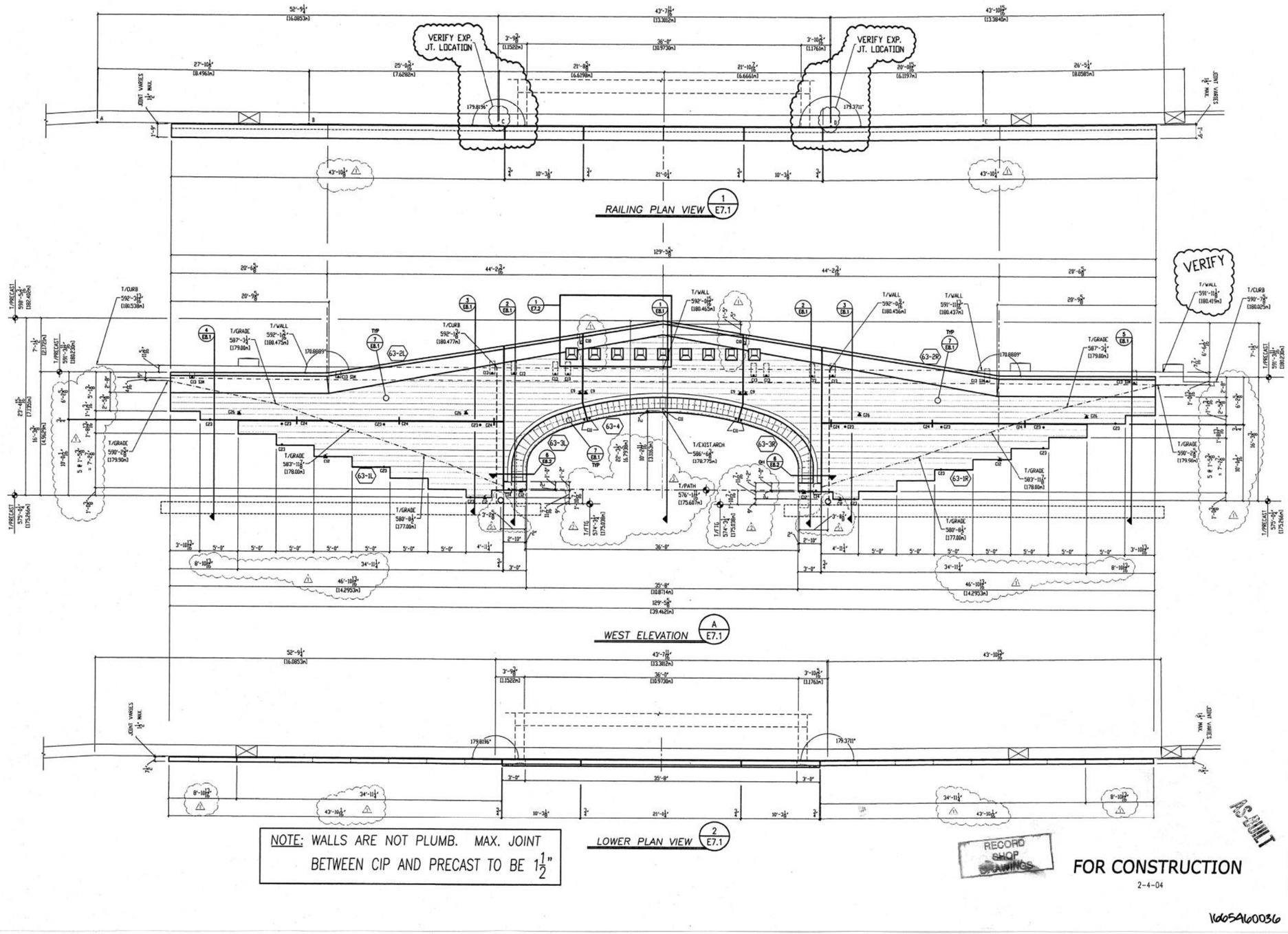

RECORD SHOP DRAWINGS

FOR CONSTRUCTION
2-4-04

AS BUILT

1605A60036 1640092036

FOR INFORMATION ONLY

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO, (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT: SOUTH LAKE SHORE DRIVE UNDERPASS @ 63RD STREET CHICAGO, ILLINOIS

ARCHITECT: CTE ENGINEERS

CONTRACTOR: WALSH CONSTRUCTION

REVISIONS	
NO.	REVISION
1	PER APPROVAL (12/22/03)
	1/8/04
2	PER FAX
	1/8/04
3	PER FAX
	1/15/04
4	CONN. UPDATE
	2/16/04
5	PER FAX
	2/26/04

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	12-2-03
CHKD	DATE
RTD	12-2-03

JOB NO. 3010

SHEET NO. E7.1 OF

#0322

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		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (29 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-29 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1024
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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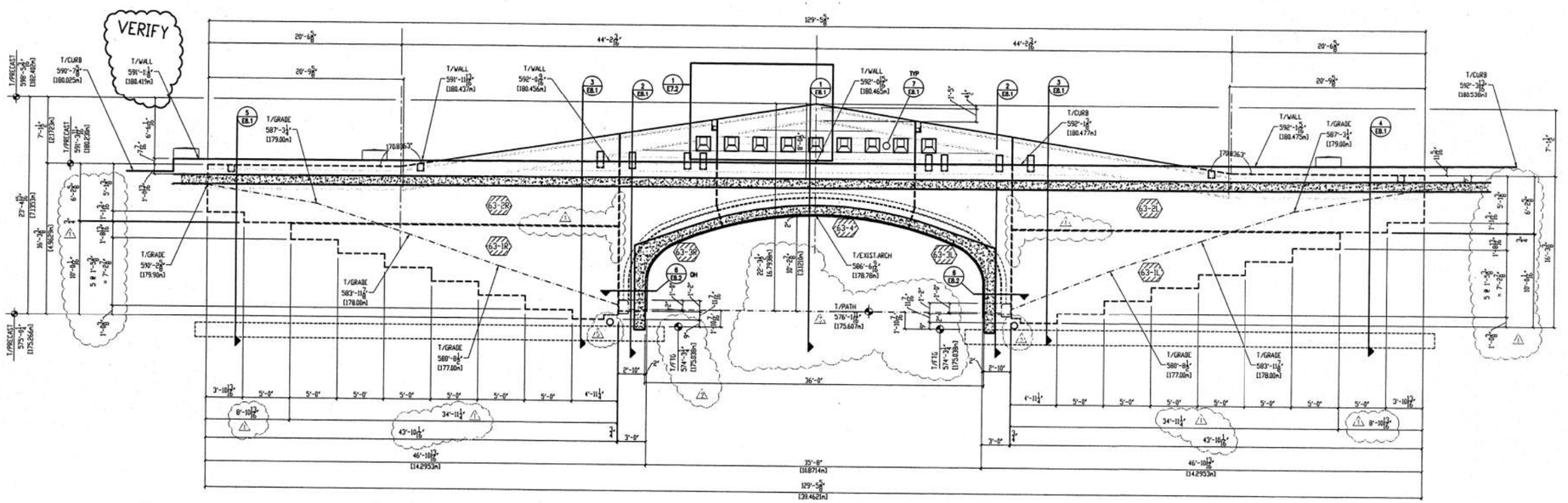
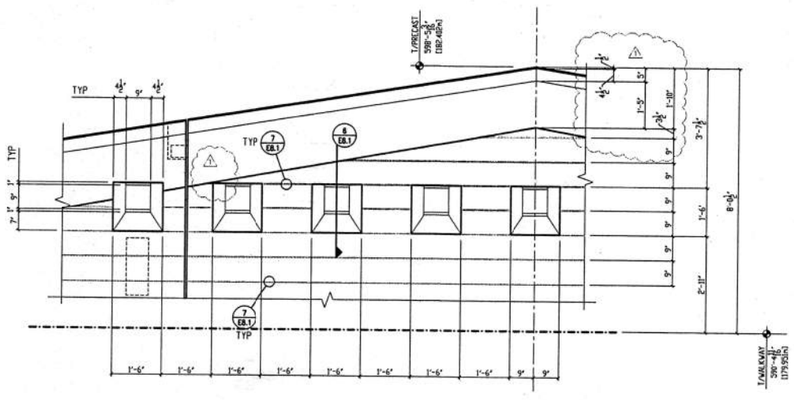


EAST ELEVATION OF WEST WALL (A / E7.2)



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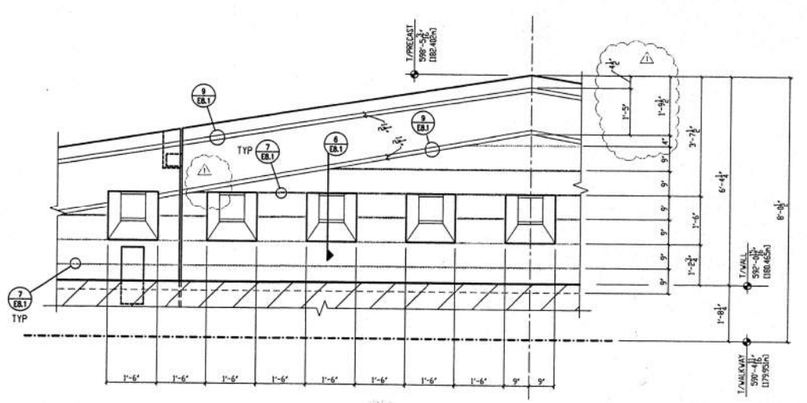

ENLAGRED DETAIL (2 / E7.2)

RECORD SHOP DRAWINGS

AS BUILT

FOR CONSTRUCTION
2-4-04

16059600037 16A00920037

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT: SOUTH LAKE SHORE DRIVE UNDERPASS @ 63RD STREET CHICAGO, ILLINOIS
CONTRACTOR: WALSH CONSTRUCTION
ARCHITECT: CTE ENGINEERS

REVISIONS	
NO.	REVISION
1	PER APPROVAL (12/22/03)
	1/8/04
2	PER FAX.
	1/8/04
3	PER FAX
	1/15/04
4	CONN. UPDATE
	2/16/04
5	PER FAX
	2/26/04

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	JLD	DATE 12-2-03
CHKD	RTD	DATE 12-2-03

JOB NO. 3010
SHEET NO. E7.2 OF
#0322

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (30 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-30 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1025
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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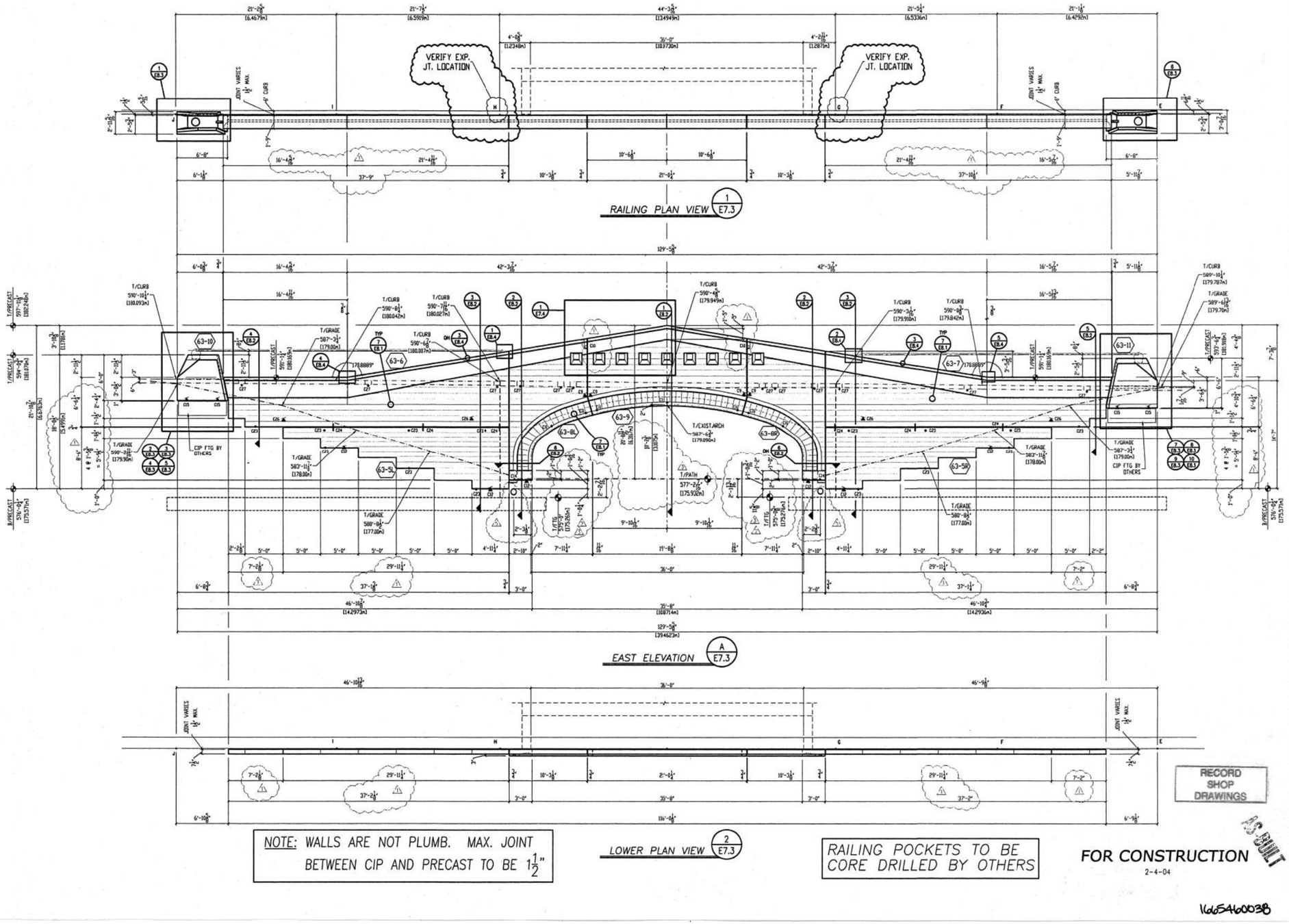

NOTE: WALLS ARE NOT PLUMB. MAX. JOINT BETWEEN CIP AND PRECAST TO BE 1½"

RAILING POCKETS TO BE CORE DRILLED BY OTHERS

RECORD SHOP DRAWINGS

FOR CONSTRUCTION
2-4-04

1665460038 1640091038 #0322

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
424 S. W. 12TH STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT: SOUTH LAKE SHORE DRIVE UNDERPASS @ 63RD STREET CHICAGO, ILLINOIS

CONTRACTOR: WALSH CONSTRUCTION | ARCHITECT: CTE ENGINEERS

REVISIONS	
NO.	REVISION
1	PER APPROVAL (12/22/03)
	1/8/04
2	PER FAX
	1/8/04
3	PER FAX
	1/15/04
4	CONN. UPDATE
	2/16/04
5	PER FAX
	2/26/04

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	12-2-03
CHKD	DATE
RTD	12-2-03

JOB NO. 3010

SHEET NO. E7.3 OF

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (31 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-31 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1026
	CDOT PROJECT NO. B-7-203		SN 016-6546	
		ILLINOIS FED. AID PROJECT		

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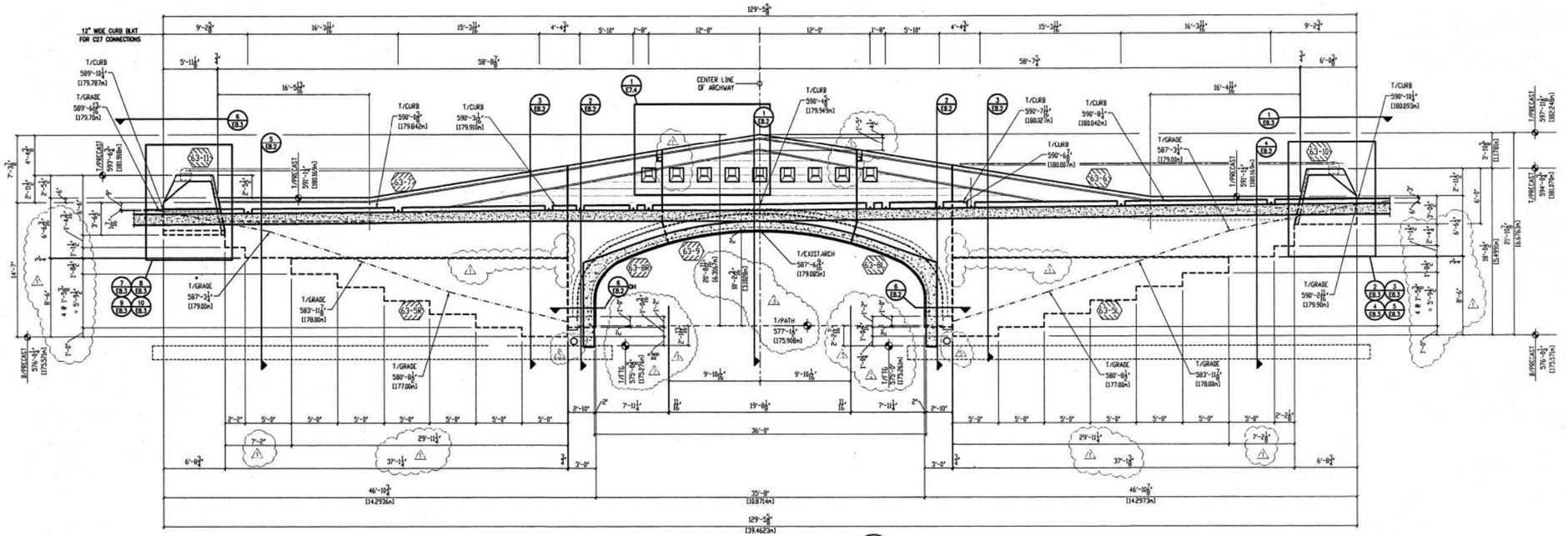
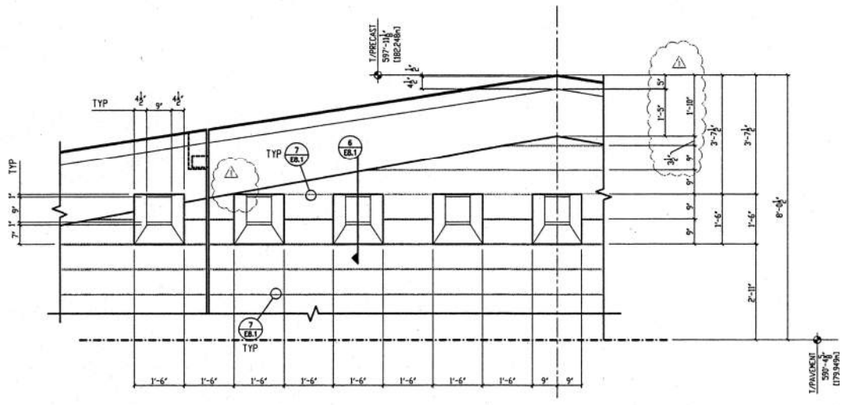


WEST ELEVATION OF EAST WALL (A / E7.4)

RAILING POCKETS TO BE CORE DRILLED BY OTHERS



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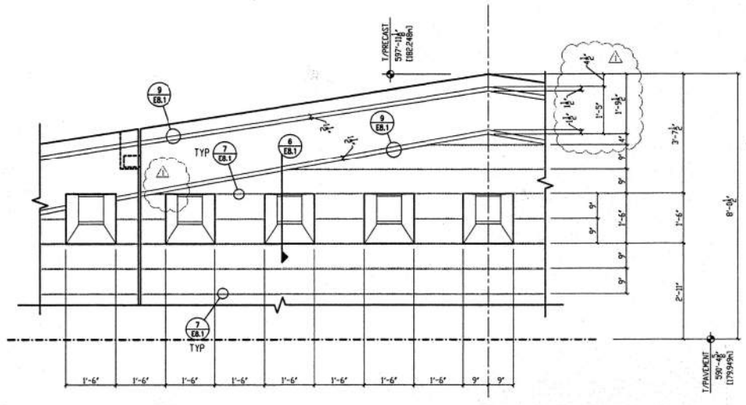

ENLARGED DETAIL (2 / E7.4)

FOR CONSTRUCTION
2-4-04

RECORD SHOP DRAWINGS

AS-BUILT

1665460039

1640092039

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT: SOUTH LAKE SHORE DRIVE UNDERPASS @ 63RD STREET CHICAGO, ILLINOIS

CONTRACTOR: WALSH CONSTRUCTION | ARCHITECT: CTE ENGINEERS

REVISIONS	
NO.	REVISION
1	PER APPROVAL (12/23/03)
	1/8/04
2	PER FAX
	1/8/04
3	PER FAX
	1/15/04
4	CONN. UPDATE
	2/16/04
5	PER FAX
	2/26/04

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	12-2-03
CHKD	DATE
RTD	12-2-03

JOB NO. 3010

SHEET NO. E7.4 OF

#0322

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (32 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-32 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1027
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS	FED. AID PROJECT			

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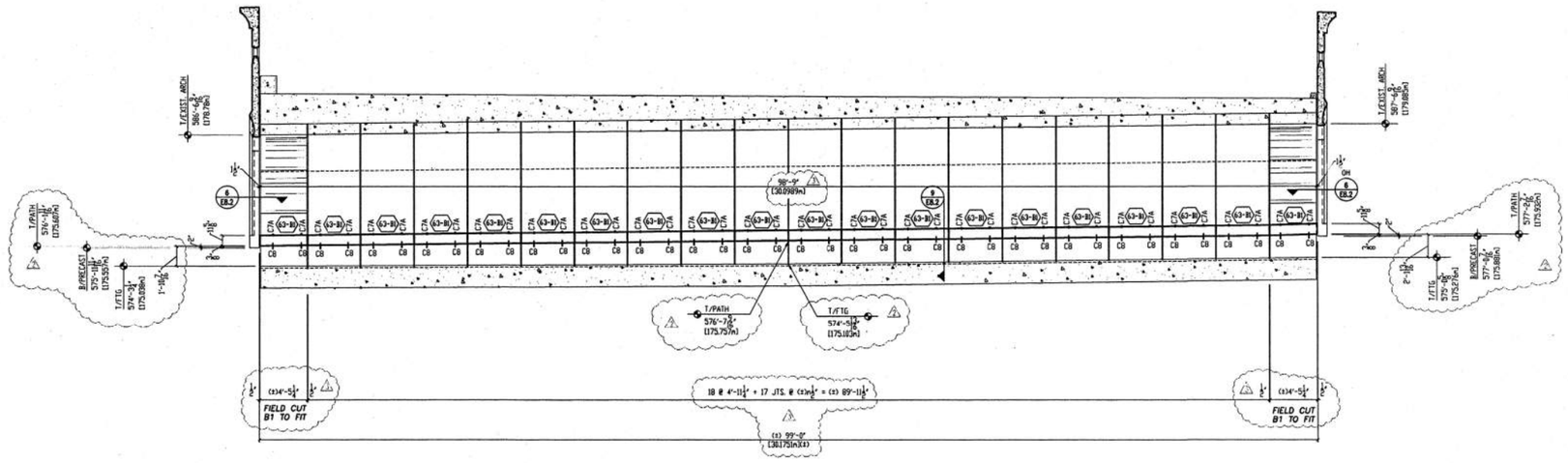
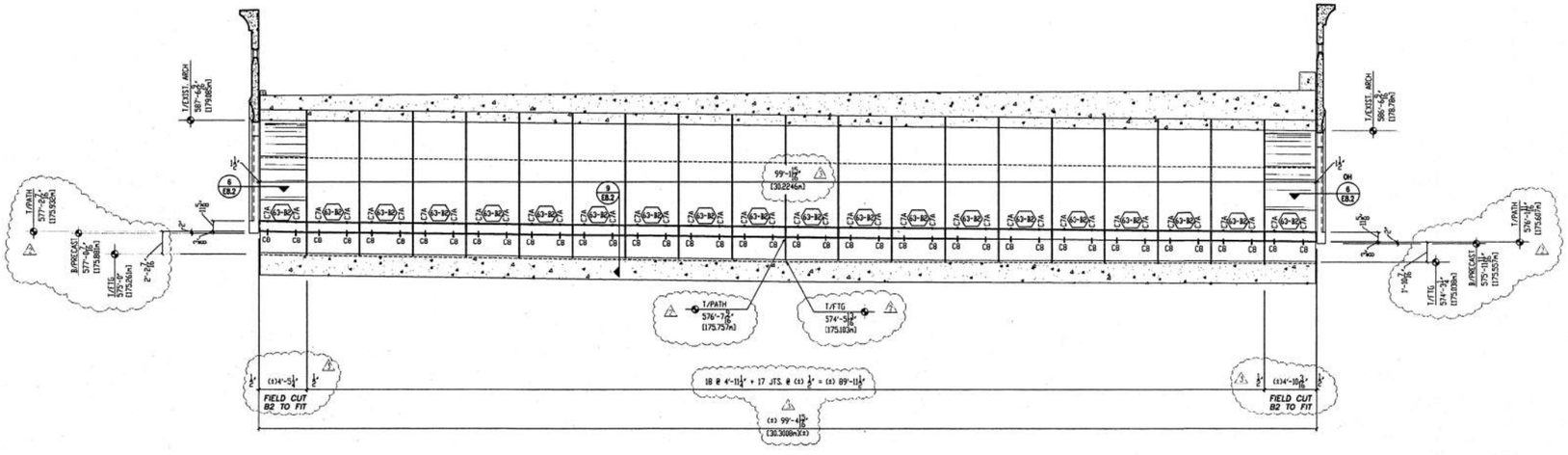


SOUTH ELEVATION (NORTH WALL) — A / E7.5



NORTH ELEVATION (SOUTH WALL) — B / E7.5

FOR CONSTRUCTION
2-4-04
RECORD SHOP DRAWINGS
AS-BUILT
1605460040
1640092040

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
2145 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT: SOUTH LAKE SHORE DRIVE UNDERPASS @ 63RD STREET CHICAGO, ILLINOIS
CONTRACTOR: WALSH CONSTRUCTION
ARCHITECT: CTE ENGINEERS

REVISIONS	
NO.	REVISION
1	PER APPROVAL (12/22/03)
	1/8/04
2	PER FAX
	1/8/04
3	PER FAX
	2/2/04

DIETZ ENGINEERING, INC.
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TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	12-2-03
CHKD	DATE
RTD	12-2-03

JOB NO. 3010
SHEET NO. E7.5 OF
#0322

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (33 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-33 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1028
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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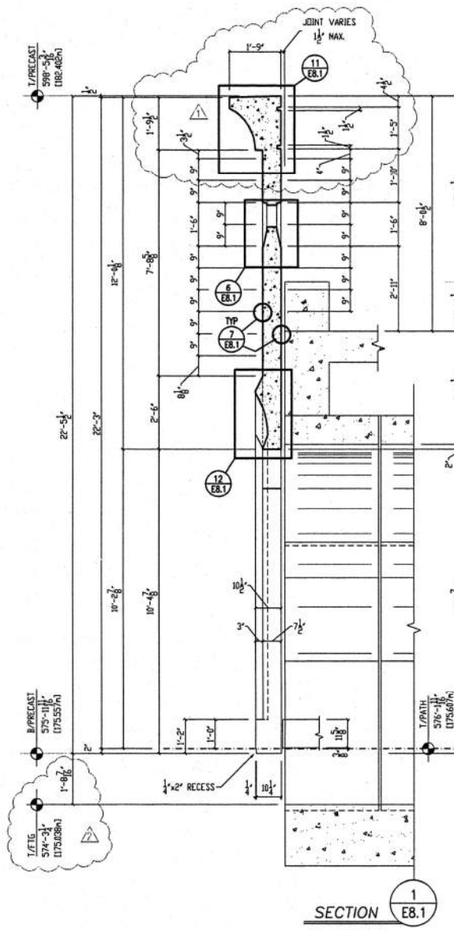

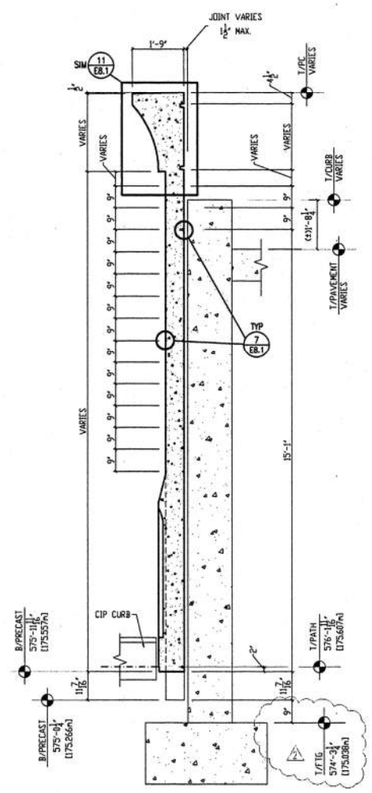

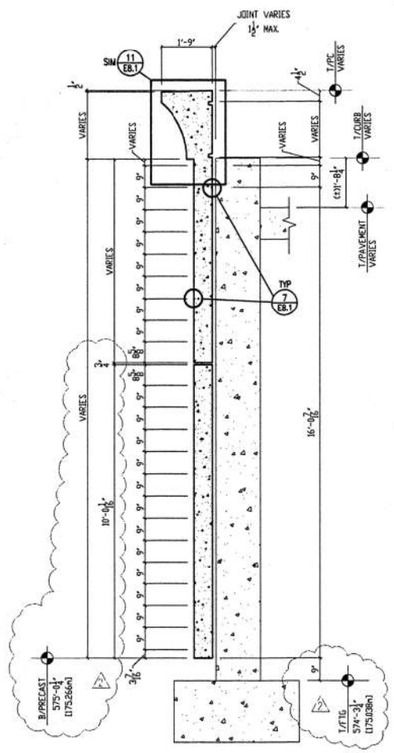

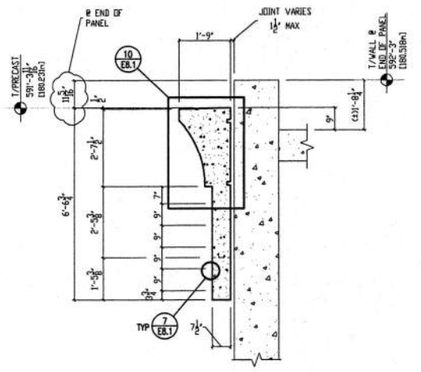

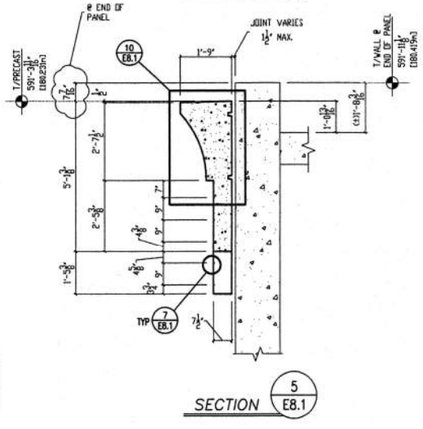

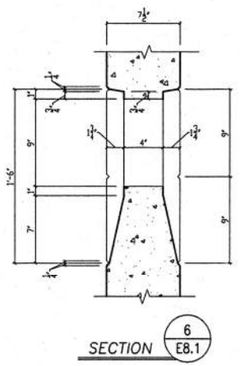

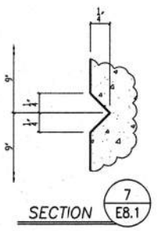

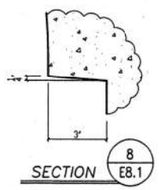

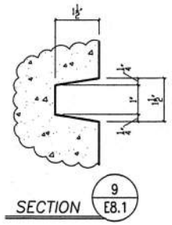

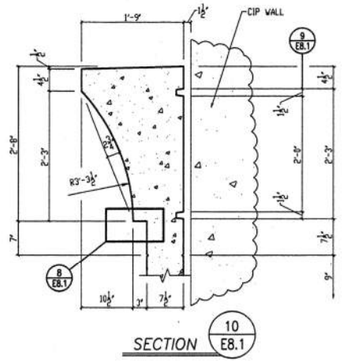

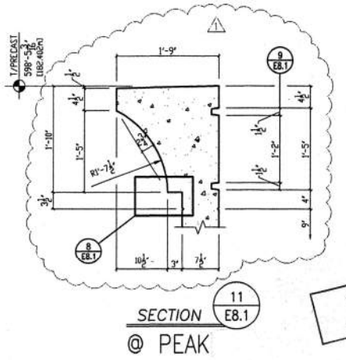

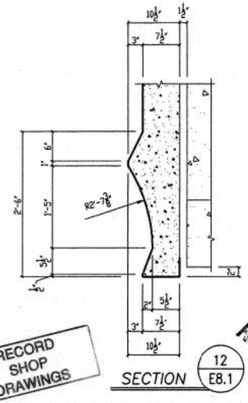

RECORD SHOP DRAWINGS

AS-BUILT

FOR CONSTRUCTION
2-4-04

1665460041

1640092041

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT: SOUTH LAKE SHORE DRIVE UNDERPASS @ 63RD STREET CHICAGO, ILLINOIS

CONTRACTOR: WALSH CONSTRUCTION | ARCHITECT: CTE ENGINEERS

REVISIONS	
NO.	REVISION
1	PER APPROVAL (12/22/03)
	1/8/04
2	PER FAX.
	1/8/04

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	12-2-03
CHKD	DATE
RTD	12-2-03

JOB NO. 3010

SHEET NO. E8.1 OF

#0322

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-034.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (34 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-34 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1029
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS	FED. AID PROJECT			

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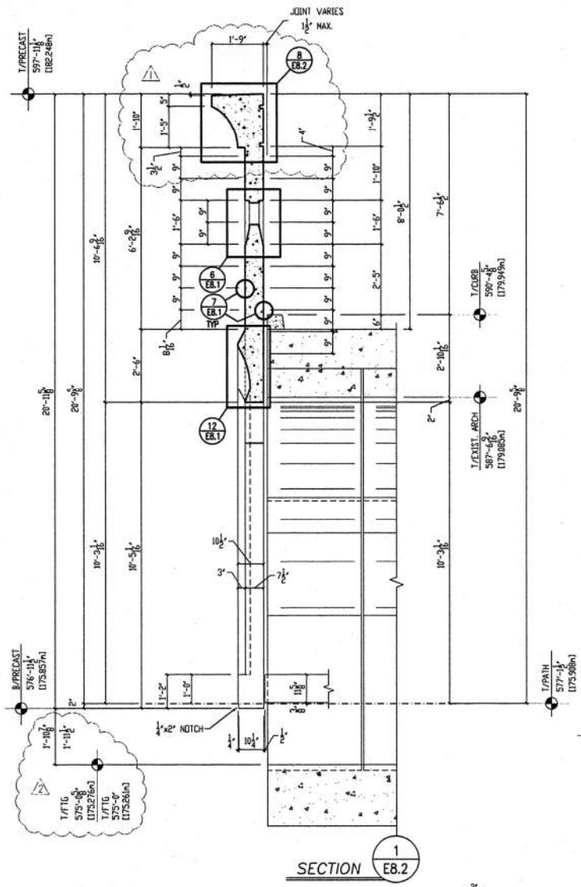
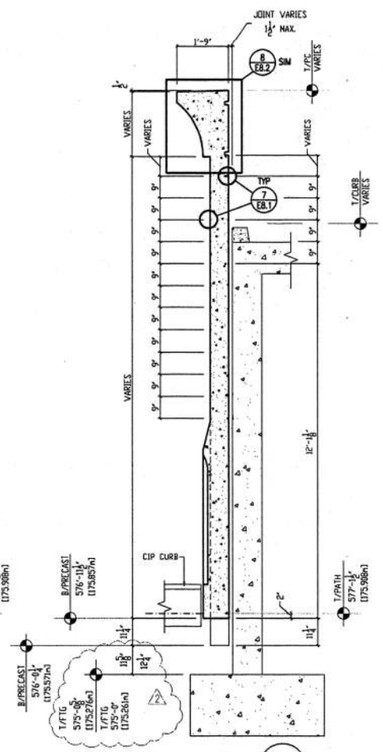


SECTION 1 E8.2



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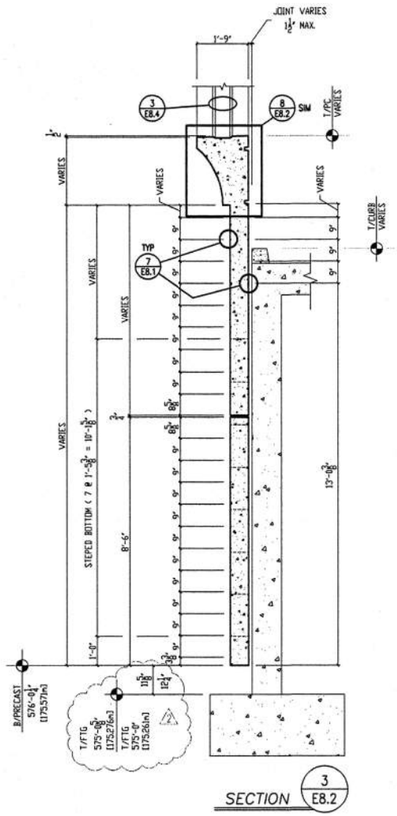
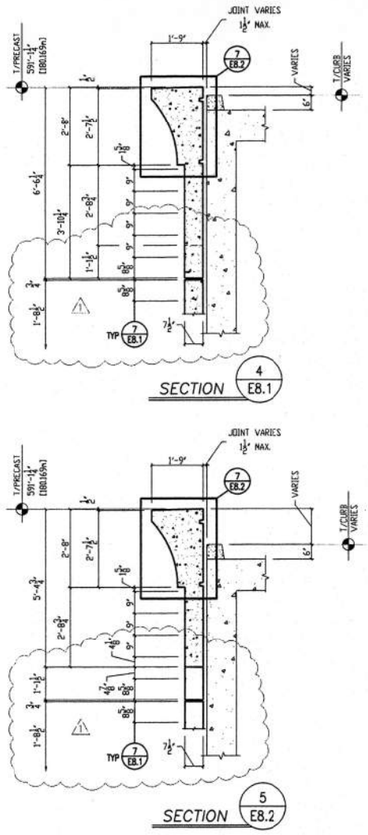
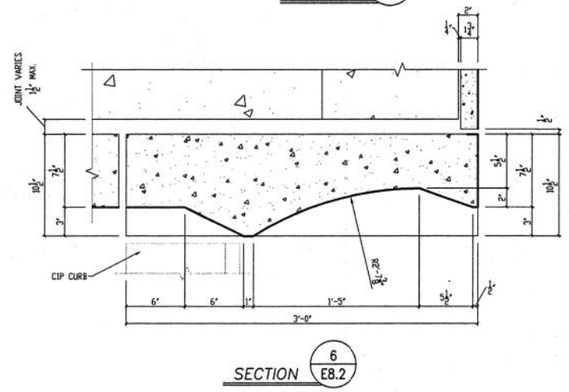


SECTION 3 E8.2



SECTION 4 E8.1

SECTION 5 E8.2



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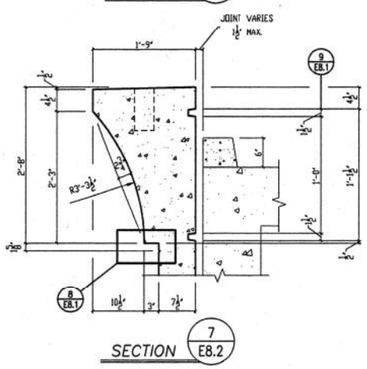

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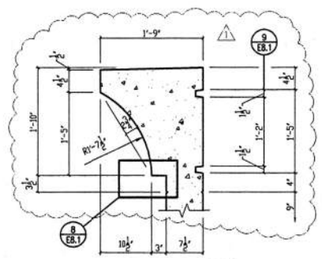
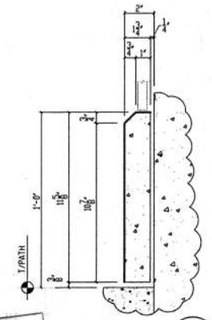


SECTION 8 E8.2
@ PEAK



SECTION 9 E8.2

RECORD SHOP DRAWINGS

FOR CONSTRUCTION
2-4-04

AS-BUILT 1640092092
1665460042

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT: SOUTH LAKE SHORE DRIVE UNDERPASS @ 63RD STREET CHICAGO, ILLINOIS

CONTRACTOR: WALSH CONSTRUCTION | ARCHITECT: CTE ENGINEERS

REVISIONS	
NO.	REVISION
1	PER APPROVAL (12/22/03)
	1/8/04
2	PER FAX.
	1/8/04

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	12-2-03
CHKD	DATE
RTD	12-2-03

JOB NO. 3010
SHEET NO. E8.2 OF #0322

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-035.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (35 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-35 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1030
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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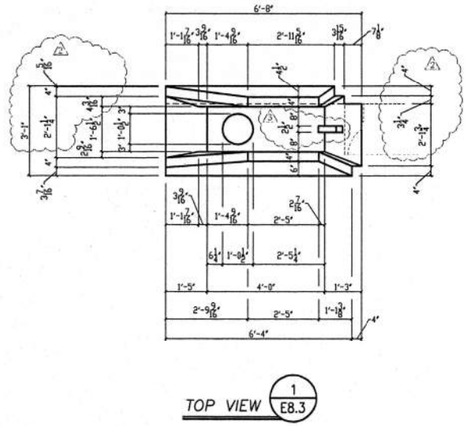
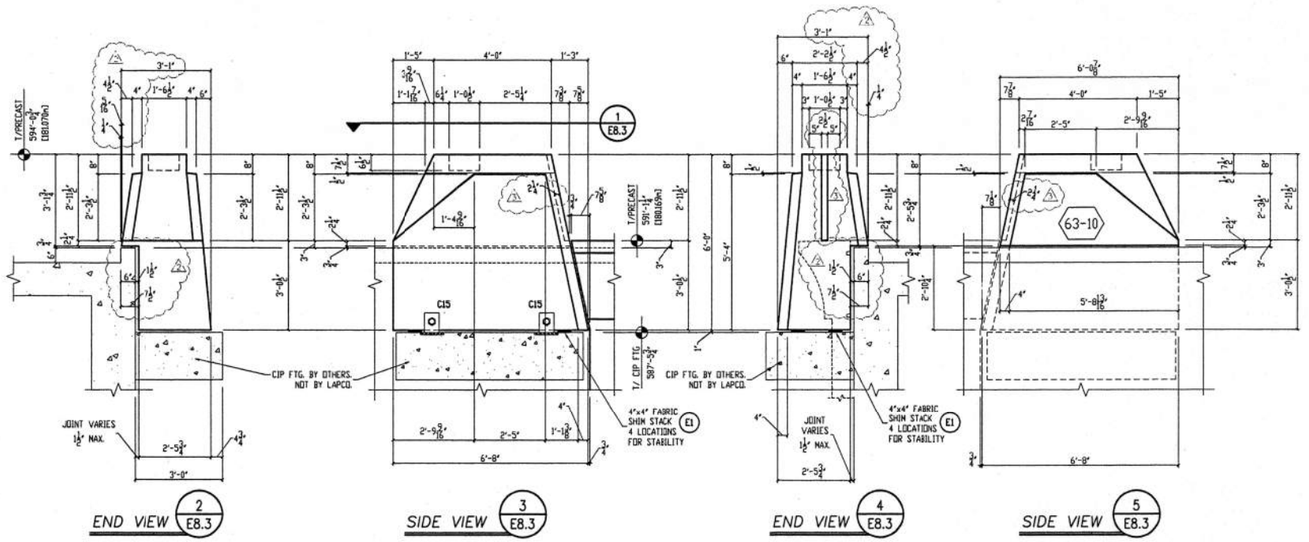
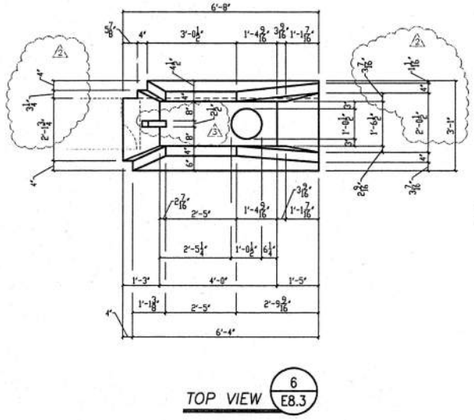


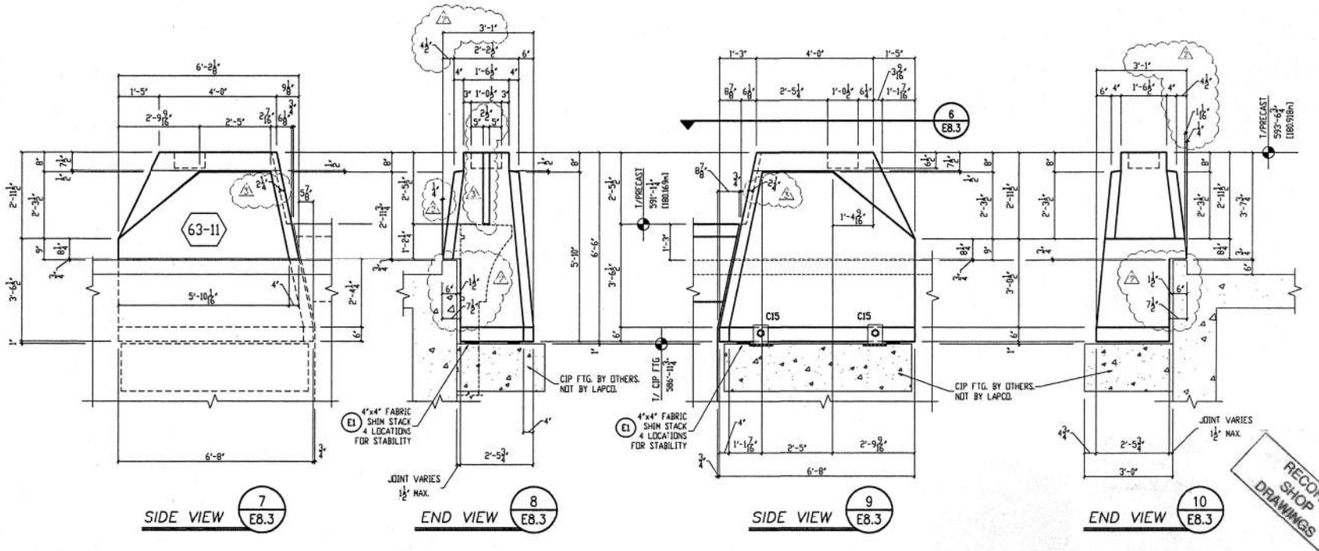
TOP VIEW 1 / E8.3



END VIEW 2 / E8.3 — SIDE VIEW 3 / E8.3 — END VIEW 4 / E8.3 — SIDE VIEW 5 / E8.3



TOP VIEW 6 / E8.3



SIDE VIEW 7 / E8.3 — END VIEW 8 / E8.3 — SIDE VIEW 9 / E8.3 — END VIEW 10 / E8.3

RECORD SHOP DRAWINGS

FOR CONSTRUCTION
2-10-04
AS-BUILT

1665460043 16A0092043

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
ALSIP (CHICAGO), ILLINOIS 60658
PHONE (708) 385-1080

PROJECT SOUTH LAKE SHORE DRIVE
UNDERPASS @ 63RD STREET
CHICAGO, ILLINOIS

CONTRACTOR WALSH CONSTRUCTION | ARCHITECT CTE ENGINEERS

REVISIONS	
NO.	REVISION
1	PER APPROVAL (12/22/03) 1/8/04
2	PER FIELD CURB DIM. 2/10/04
3	PER MRH PHONE 3/2/04

DIETZ ENGINEERING, INC.
100 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	12-2-03
CHKD	DATE
RTD	12-2-03

JOB NO. 3010
SHEET NO. E8.3 OF
#0322

CNECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-036.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (36 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-36 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1031
CDOT PROJECT NO. B-7-203		SN 016-6546		
ILLINOIS FED. AID PROJECT				

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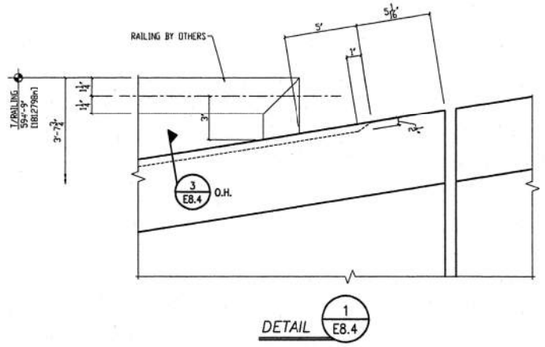
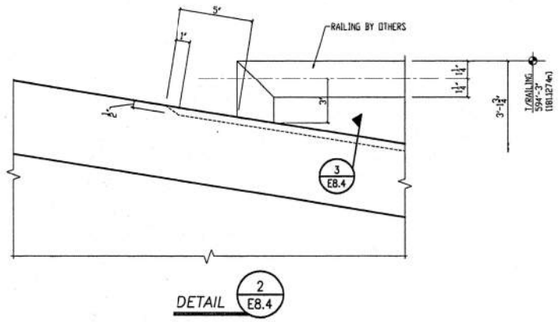
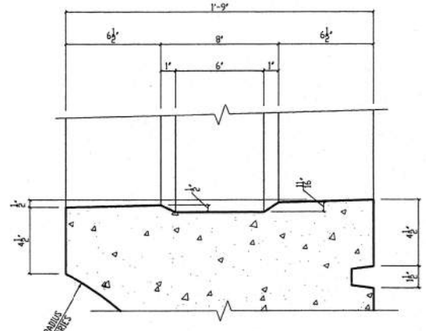


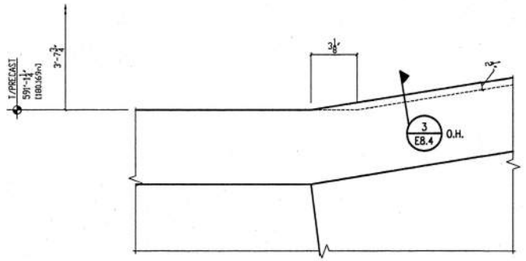
DETAIL 1 E8.4



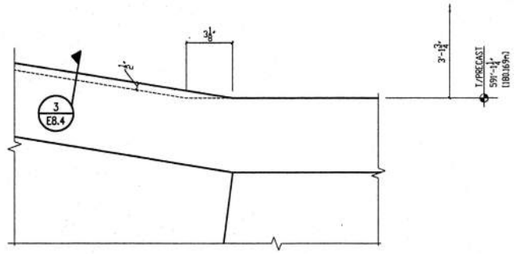
DETAIL 2 E8.4



SECTION 3 E8.4



DETAIL 4 E8.4



DETAIL 5 E8.4

LOMBARD
ARCHITECTURAL PRECAST
PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 388-1060

PROJECT: SOUTH LAKE SHORE DRIVE
UNDERPASS @ 63RD STREET
CHICAGO, ILLINOIS

CONTRACTOR: WALSH CONSTRUCTION | ARCHITECT: CTE ENGINEERS

REVISIONS	
NO.	REVISION
-	-
	-

DIETZ ENGINEERING, INC.
180 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	1-19-04
CHKD	DATE
RTD	1-19-04

JOB NO. 3010
SHEET NO. E8.4 OF #0322

RECORD SHOP DRAWINGS

FOR APPROVAL

AS-BUILT
1665460044 1640092044

FOR INFORMATION ONLY

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

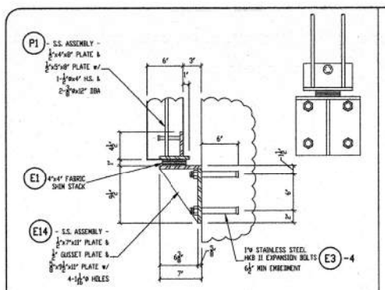
FILE NAME = ABC-sht-6546ex-037.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

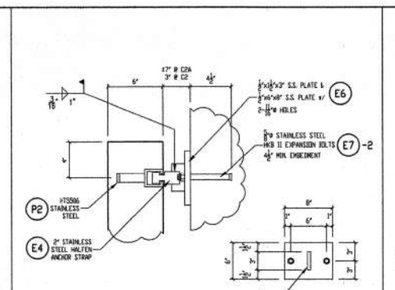
CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

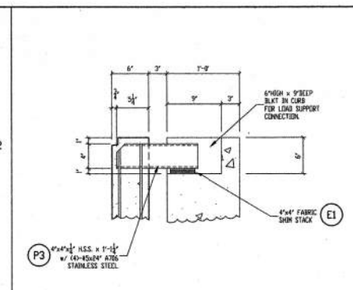
EXISTING PLANS (37 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-37 OF 50 SHEETS

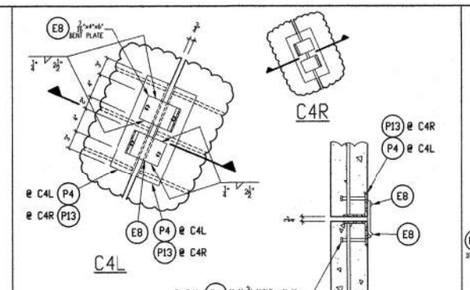
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1032
CDOT PROJECT NO.	B-7-203	SN 016-6546		
	ILLINOIS FED. AID PROJECT			

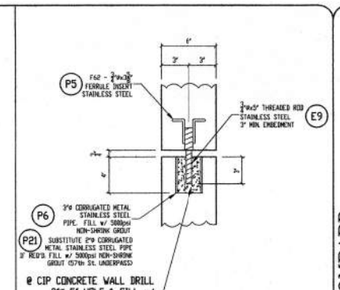
3/31/2020 9:54:50 AM c:\pw_working\civiltech_production\pw-jsurber\dms31893\ABC-sht-6546ex-037.dgn

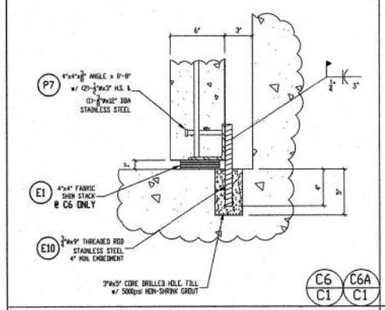


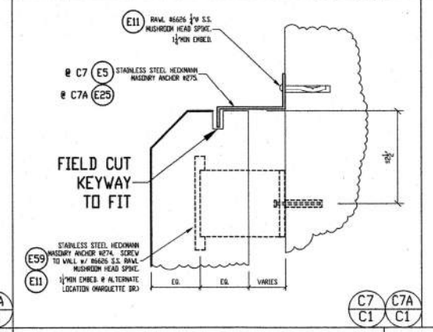


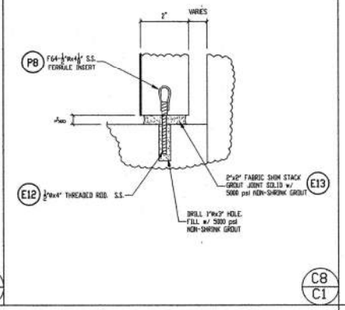


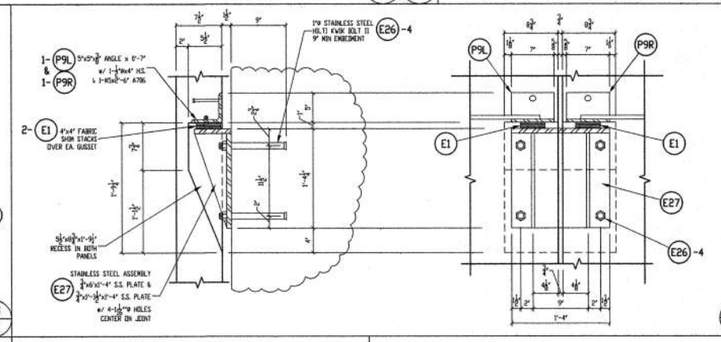


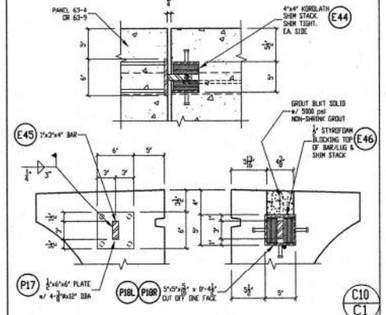


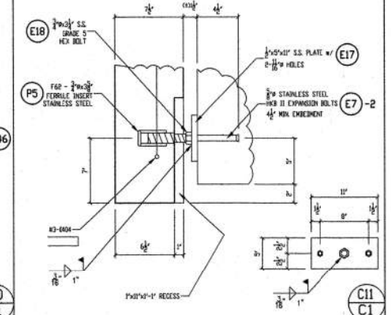


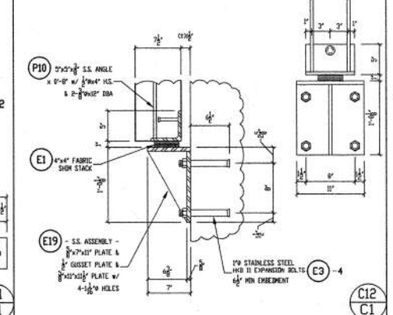


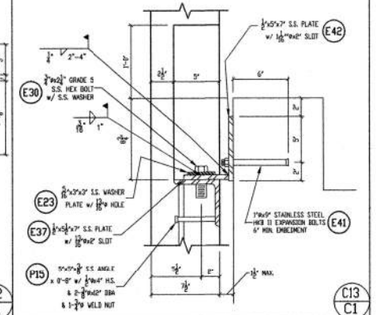


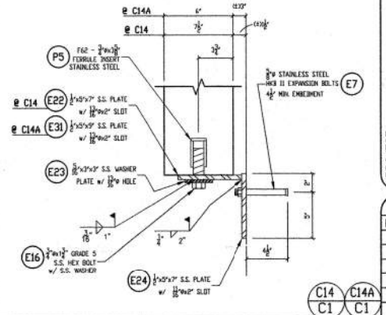


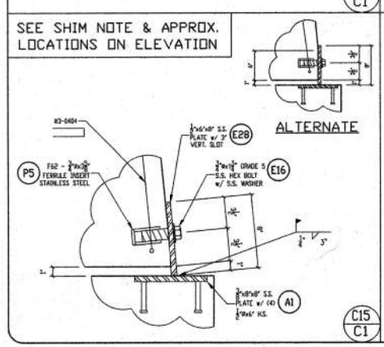


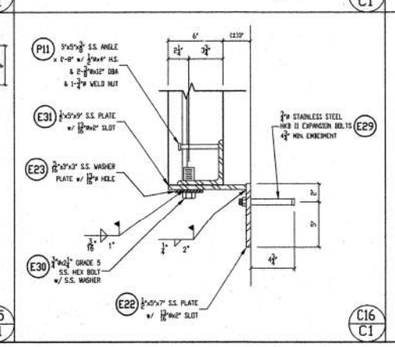


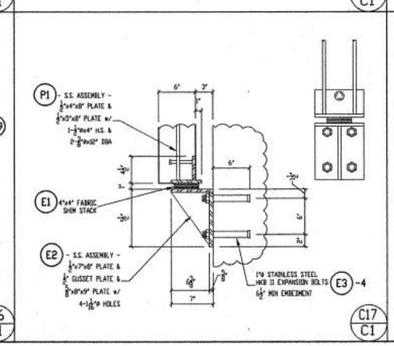


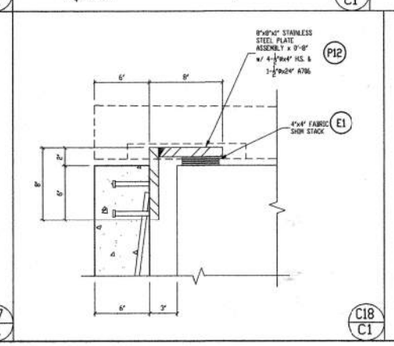


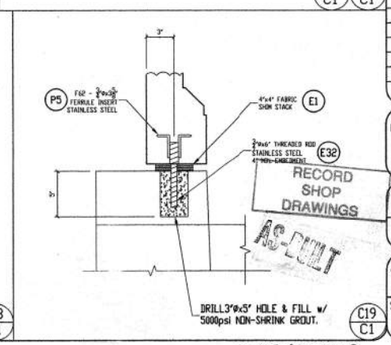












LOMBARD
ARCHITECTURAL PRECAST
PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT
SOUTH LAKE SHORE DRIVE
UNDERPASS & WALL IMPROVEMENTS
CHICAGO, ILLINOIS

ARCHITECT CTE ENGINEERING

CONTRACTOR WALSH CONSTUCTION

REVISIONS	
NO.	REVISION
1	UPDATED 12-2-03
2	UPDATED 12-15-03
3	UPDATED 2-16-04

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	11-12-03
CHKD	DATE
RTD	11-12-03

JOB NO. 3010

SHEET NO. C1

1665430069
1665420080
#0322
1640092066

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-038.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (38 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-38 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1033
CDOT PROJECT NO.	B-7-203		SN 016-6546	
	ILLINOIS FED. AID PROJECT			

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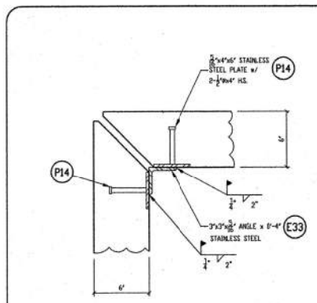

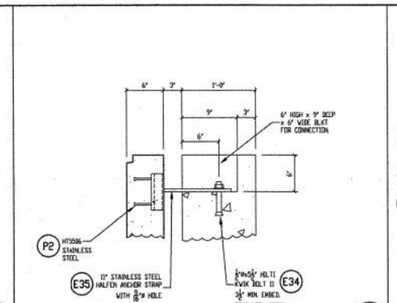

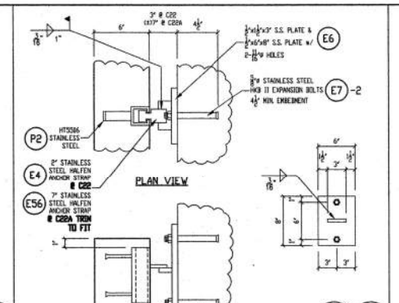

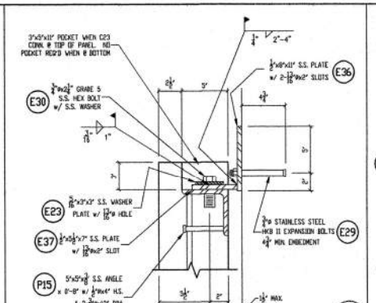

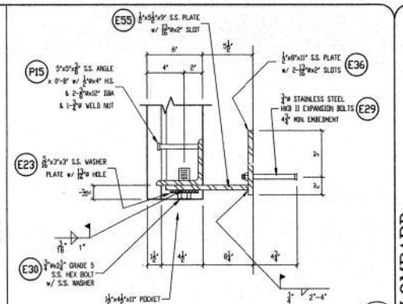

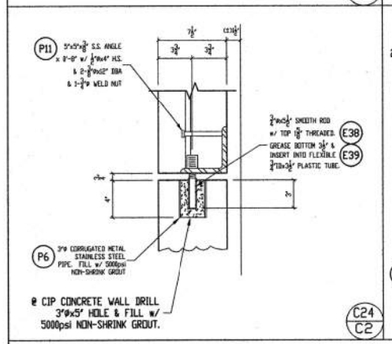

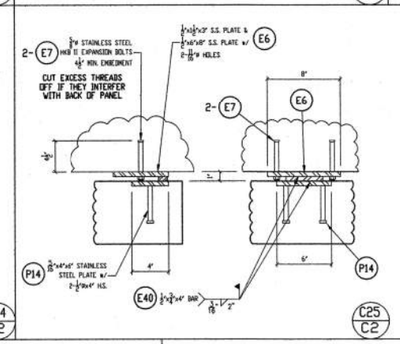

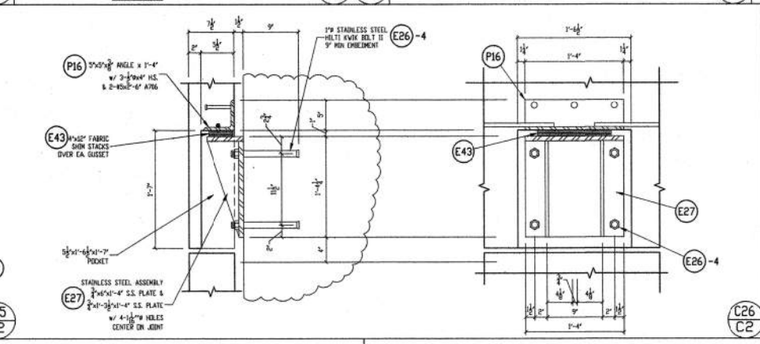

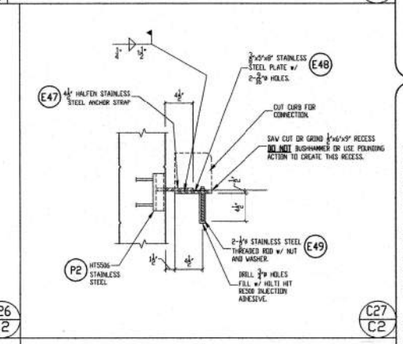

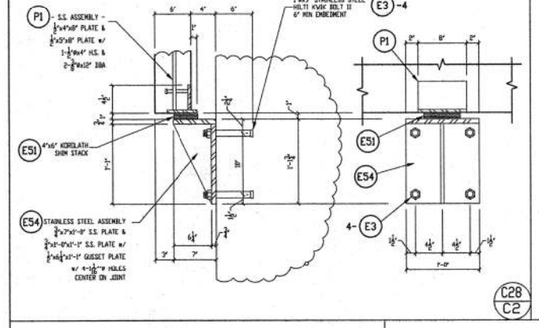

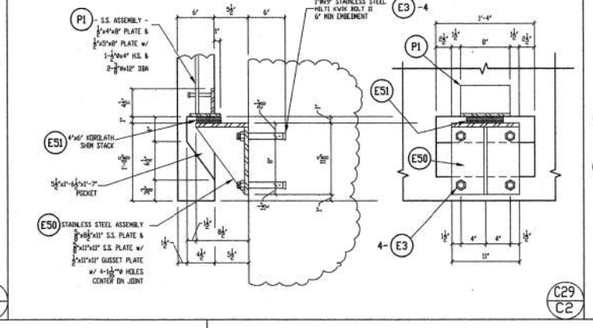

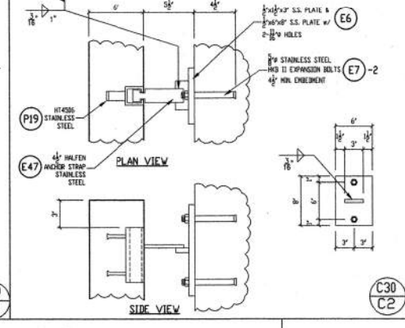

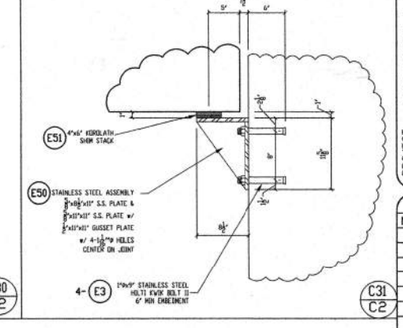

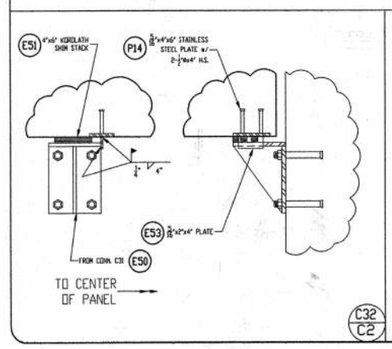

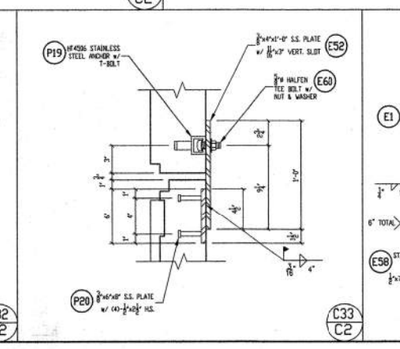

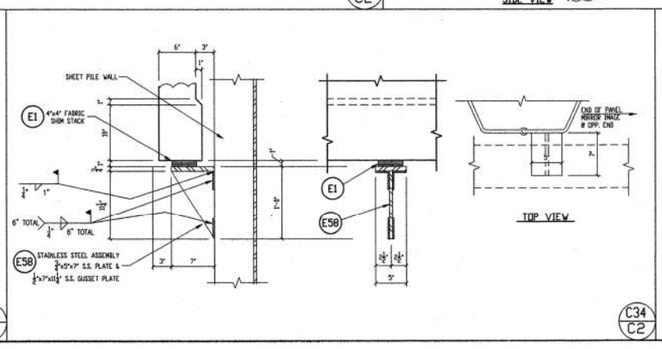

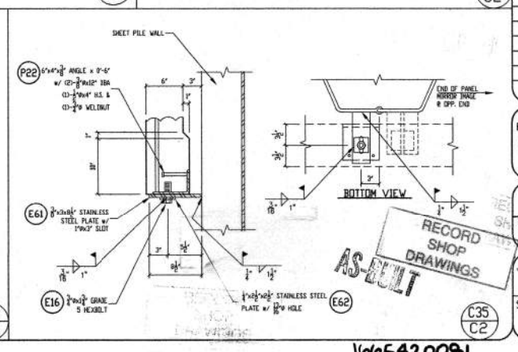

1665420081
1665430070

#0322
1640092067

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT: SOUTH LAKE SHORE DRIVE UNDERPASS & WALL IMPROVEMENTS CHICAGO, ILLINOIS

ARCHITECT: CTE ENGINEERING

CONTRACTOR: WALSH CONSTUCTION

REVISIONS

NO.	REVISION

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	1-08-04
CHKD	DATE
RTD	1-08-04

JOB NO. 3010

SHEET NO. C2

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-039.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (39 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-39 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1034
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS	FED. AID PROJECT			

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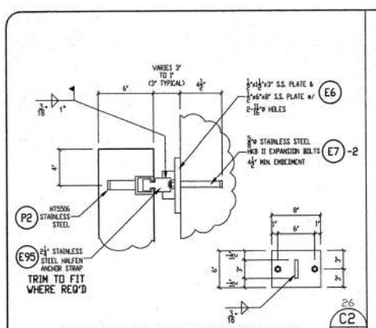
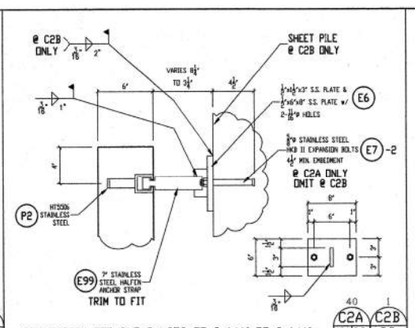
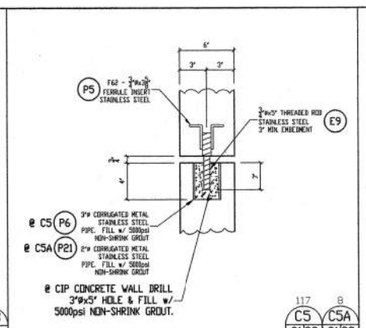
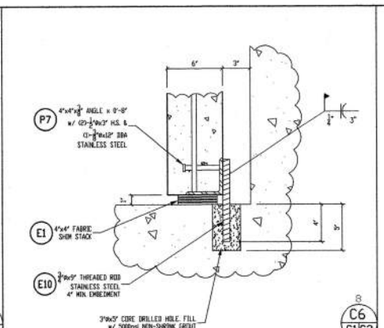


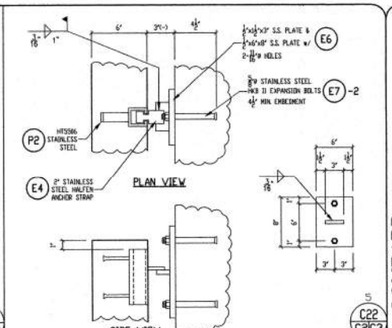
CONNECTION FOR CLEARANCES OF 3' TO 1'

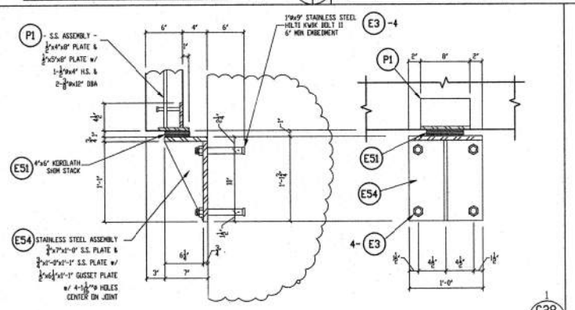


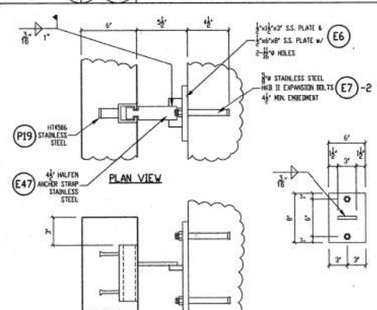
CONNECTION FOR CLEARANCES OF 3 1/4" TO 8 1/4"

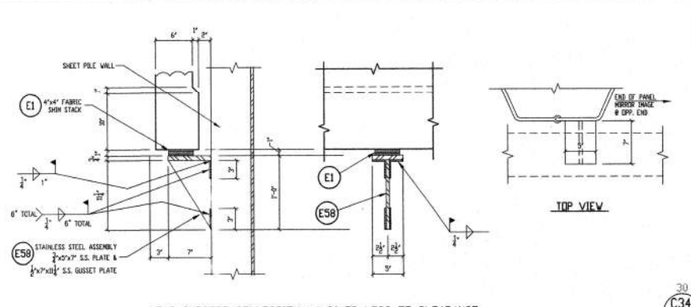




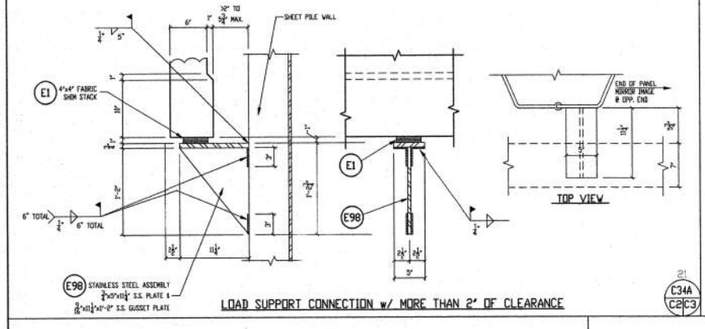




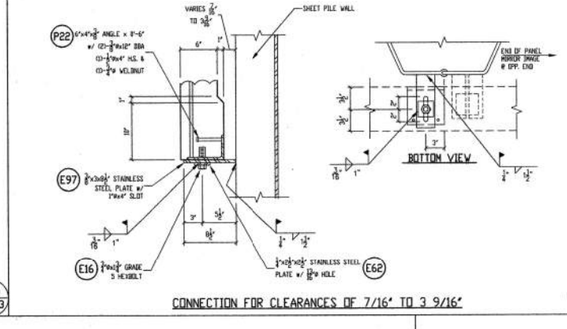




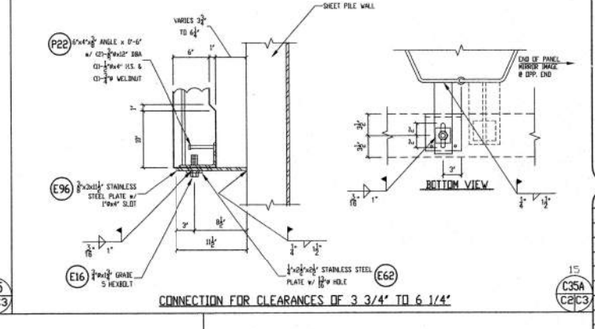
LOAD SUPPORT CONNECTION w/ 2' OR LESS OF CLEARANCE



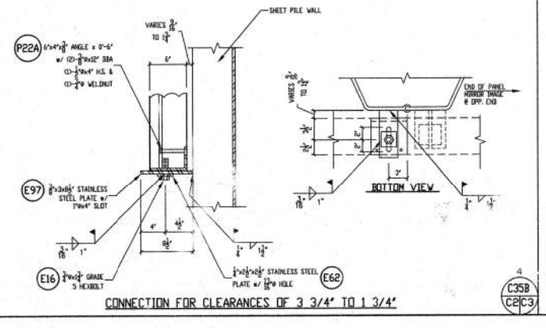
LOAD SUPPORT CONNECTION w/ MORE THAN 2' OF CLEARANCE



CONNECTION FOR CLEARANCES OF 7/16" TO 3 9/16"



CONNECTION FOR CLEARANCES OF 3 3/4" TO 6 1/4"



CONNECTION FOR CLEARANCES OF 3 3/4" TO 1 3/4"

AS-BUILT

FOR CONSTRUCTION
3-11-03

RECORD SHOP DRAWINGS

1665920082
1665430071
1640092068

LOMBARD ARCHITECTURAL PRECAST PRODUCTS CO.
4245 W. 123rd STREET
CHICAGO (ALSIP), ILLINOIS 60658
PHONE (708) 389-1060

PROJECT SOUTH LAKE SHORE DRIVE
57th St. UNDERPASS WALL IMPROVEMENTS
CHICAGO, ILLINOIS

ARCHITECT CTE ENGINEERING

CONTRACTOR WALSH CONSTUCTION

REVISIONS	
NO.	REVISION
1	PER APPROVAL
	3-1-05
2	UPDATED
	4-4-05

DIETZ ENGINEERING, INC.
190 GARDNER AVE., #9
BURLINGTON, WI 53105
TEL 262-763-4402
FAX 262-763-4492

DRWN	DATE
JLD	2-16-05
CHKD	DATE
RTD	2-16-05

JOB NO. 3010
SHEET NO. C3
#0322N

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-040.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (40 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-40 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1035
CDOT PROJECT NO.	B-7-203	SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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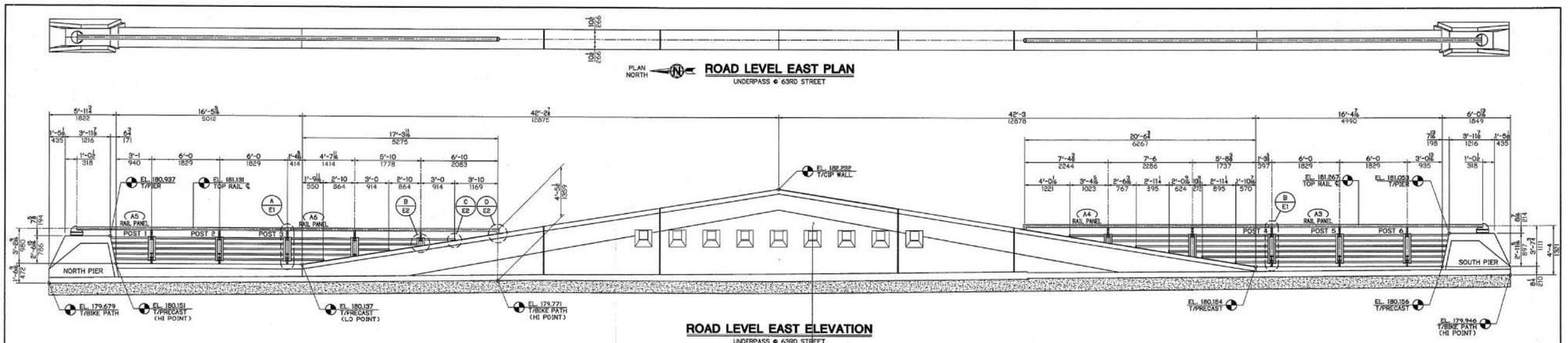
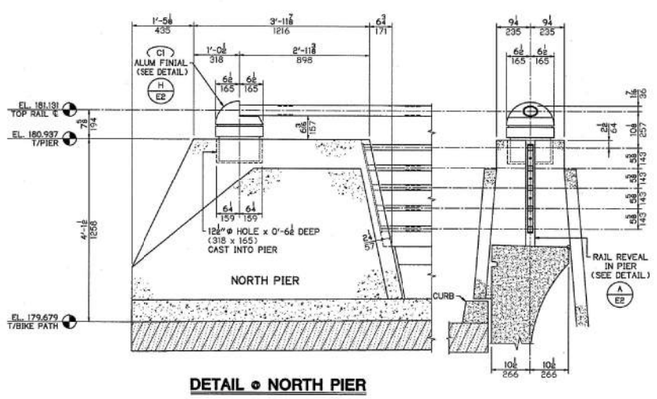
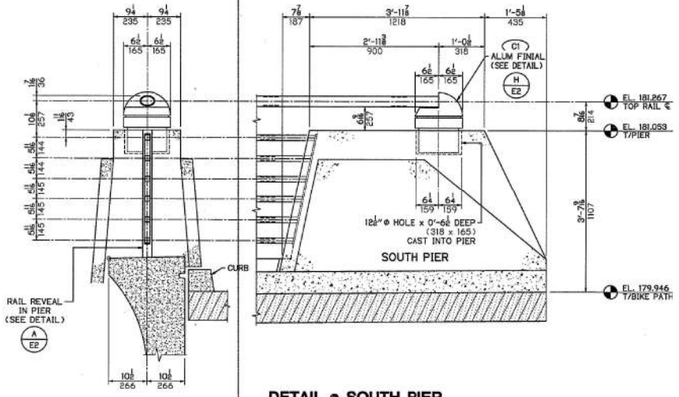


ROAD LEVEL EAST PLAN
UNDERPASS ⊕ 63RD STREET

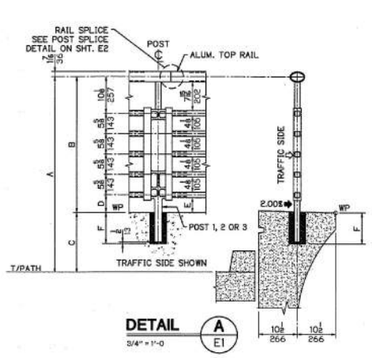
ROAD LEVEL EAST ELEVATION
UNDERPASS ⊕ 63RD STREET
LOOKING EAST



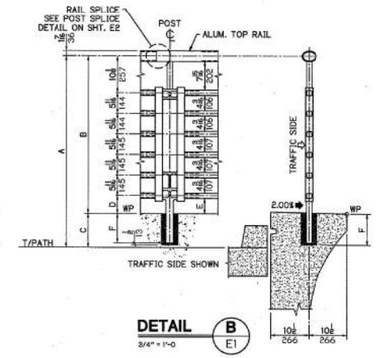
DETAIL ⊕ NORTH PIER



DETAIL ⊕ SOUTH PIER



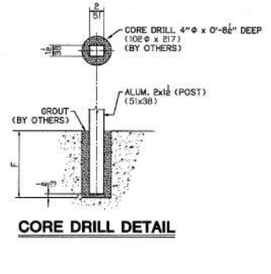
DETAIL A
3/4" = 1'-0
E1



DETAIL B
3/4" = 1'-0
E1

POST DIMENSIONS

POST	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F
1	4'-8⅜ (1430)	3'-2⅝ (983)	1'-5⅝ (447)	0'-6⅛ (154)	0'-5⅜ (135)	0'-7⅜ (187)
2	4'-7 (1416)	3'-2 (987)	1'-4⅝ (429)	0'-6¼ (159)	0'-5½ (140)	0'-7⅜ (183)
3	4'-7⅜ (1402)	3'-2⅜ (992)	1'-4⅛ (410)	0'-6⅛ (154)	0'-5⅝ (144)	0'-7 (178)
4	4'-5⅜ (1362)	3'-1⅞ (1113)	0'-9⅜ (249)	0'-5¼ (133)	0'-4½ (114)	0'-8⅛ (206)
5	4'-5⅛ (1349)	3'-1⅞ (1111)	0'-9⅜ (238)	0'-5⅛ (132)	0'-4⅜ (113)	0'-8¼ (210)
6	4'-4⅝ (1338)	3'-1⅞ (1111)	0'-9⅜ (238)	0'-5⅛ (132)	0'-4⅜ (113)	0'-8¼ (210)



CORE DRILL DETAIL

GENERAL NOTES

GENERAL CONSTRUCTION SPECIFICATIONS

1. ILLINOIS DEPARTMENT OF TRANSPORTATION 1997 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE PROJECT SPECIAL PROVISIONS.
2. AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 16TH EDITION (1996) AND 1997 INTERIM REVISIONS.
3. THE PROJECT GENERAL PROVISIONS AS OUTLINED IN THE GENERAL NOTES FROM THE CONTRACT DRAWINGS AND THE SPECIAL PROVISIONS.

ALUMINUM FINISH

1. ALL ALUMINUM RAIL TO BE ANODIZED AFTER FABRICATION TO A CHAMPAIGN BRONZE COLOR.

WELDING

1. AWS - BRIDGE WELDING CODE D1.5 - 1996
2. AWS - STRUCTURAL WELDING CODE D1.1 - 1996

PLAN NOTES FOR RAIL

GENERAL CONSTRUCTION SPECIFICATIONS

1. ELEVATIONS FOR TOP OF PRECAST CURB ARE FROM THE LOW POINT.

MATERIAL NOTES

NO.	MATERIAL	ASTM	GRADE	TYPE	REMARKS
1	ALUMINUM TUBE			6063-T6	
2	ALUMINUM BARS	B209		6063-T6	
3	ALUMINUM PIPE	B429		6063-T6	

FASTENER NOTES

NO.	MATERIAL	ASTM/ANSI	GRADE	TYPE	REMARKS
1	STAINLESS STEEL FASTNERS	A193	-	304	TAMP PROOF HEADS

MATERIAL QUANTITY

REF	DESCRIPTION	QUANT	CONTRACT LN/FT	CONTRACT LN/M	ACTUAL LN/FT	ACTUAL LN/M	REMARKS
	ALUMINUM RAILS		-	-	77'-8	23.673	
	POSTS	11					

AS-Built/ Record Shop Drawing

P.H. DREW INC.
2450 N. RACEWAY RD. - P.O. BOX 34295, INDIANAPOLIS, INDIANA 46234
PHONE : (317) 297-5152
FAX : (317) 297-5393

SOUTH LAKE SHORE DRIVE RECONSTRUCTION
UNDERPASS ⊕ 63RD STREET - ALUM. RAILS
PLANS & NOTES

REV	DATE	REVISION	BY
1	07-30-04	REV. SHEET NO	MRH
2			
3			
4			
5			
6			

PRINT RECORD

REV	DATE	REVISION	BY
1	01-23-04	REV. PER SURVEY & PRECAST	MRH
2	03-24-04	GENERAL REVISIONS	MRH
3	03-26-04	REV. PER CHECK	MRH
4	04-08-04	REV A3 & A4 PER APPROVAL	MRH
5	04-19-04	REV. POST LOCATION	MRH
6	04-27-04	REV. PER FIELD MEASURE	MRH

PRINT RECORD

		DATE
8	APPROVAL	11-24-03
2	FILE	01-23-04
7	DISTRIBUTION	03-26-04
7	DISTRIBUTION	04-08-04
7	DISTRIBUTION	04-20-04

STATE ILLINOIS
COUNTY COOK (CHICAGO)
PROJECT B-1-441
CONTRACT 3
SECTION 00-B0241-07-LS
STRUCTURE 016-6546
STATE JOB
CUSTOMER STEPPO SUPPLY & CONST., INC.
CONTRACTOR WALSH CONSTRUCTION
ARCHITECT CTE ENGINEERS
REFERENCE
ITEM
FINISH SEE NOTES - SHT. E1

ALL HOLES	ELECTRODES	JOB MIX	DRAWN BY	CHECKED BY	MRH NO.	JOB NO.	SHEET
U.N.O.	E70xx	JL	MRH 11-21-03	LRH 03-26-04	0335	03-1394	E1 OF E6

1640092091
16654600052

CNECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

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		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (41 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-41 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1036
	CDOT PROJECT NO. B-7-203		SN 016-6546	
		ILLINOIS FED. AID PROJECT		

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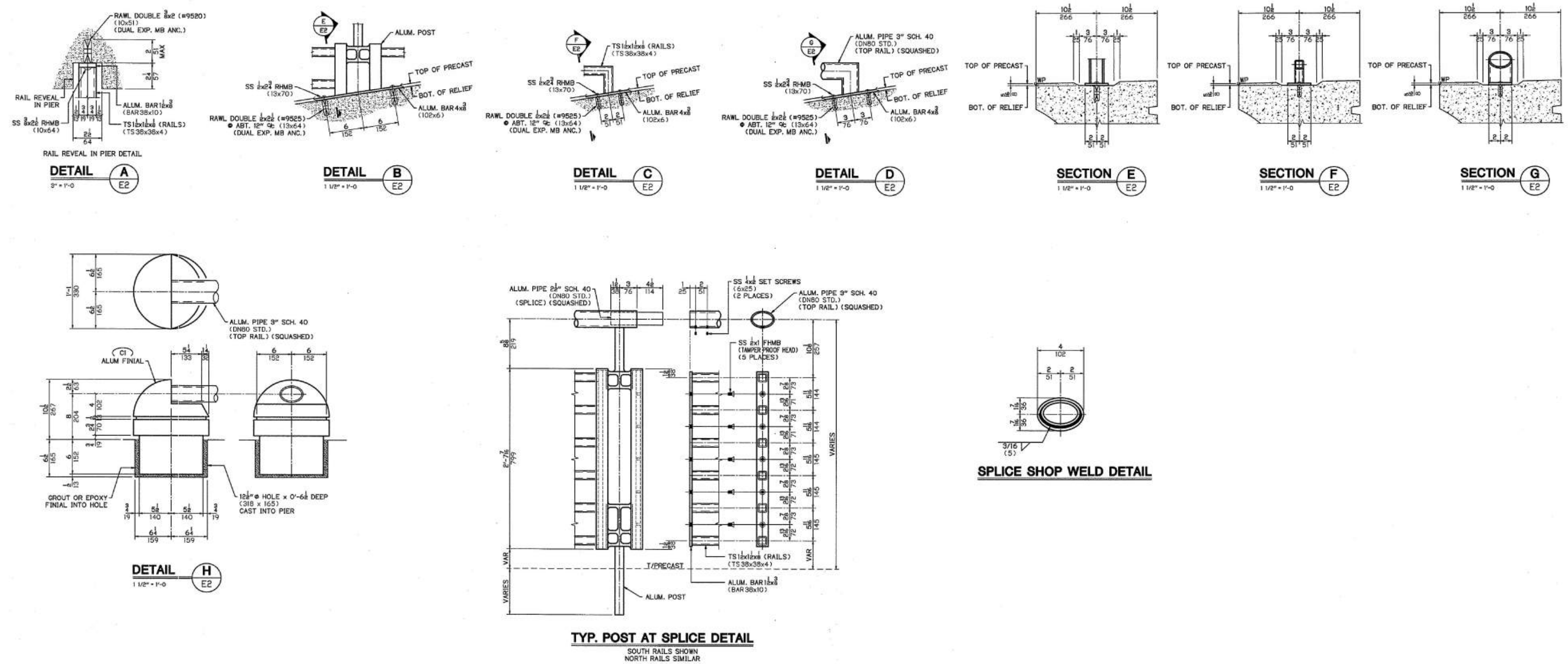

As-Built - Record Shop Drawing

P.H. DREW INC.
2450 N. RACEWAY RD. - P.O. BOX 34295
INDIANAPOLIS, INDIANA 46234
PHONE : (317) 297-5152
FAX : (317) 297-5313

SOUTH LAKE SHORE DRIVE RECONSTRUCTION
UNDERPASS @ 63RD STREET - ALUM. RAILS
SECTIONS & DETAILS

REV	DATE	REVISION	BY
1	01-23-04	REV. PER SURVEY & PRECAST	MRH
2	03-24-04	GENERAL REVISIONS	MRH
3	03-26-04	REV. PER CHECK	MRH
4	04-08-04	REV. FIELD BOLTS PER APP	MRH
5	04-27-04	REV. PER FIELD MEASURE	MRH
6	07-30-04	REV. SHEET NO	MRH

24x36	11x17	PRINT RECORD	DATE
8		APPROVAL	11-24-03
2		FILE	01-23-04
7		DISTRIBUTION	03-26-04
7		DISTRIBUTION	04-08-04
7		DISTRIBUTION	04-27-04

STATE	ILLINOIS
COUNTY	COOK (CHICAGO)
PROJECT	B-1-441
CONTRACT	3
SECTION	00-B0241-07-LS
STRUCTURE	016-6546
STATE JOB	
CUSTOMER	STEPPO SUPPLY & CONST., INC.
CONTRACTOR	WALSH CONSTRUCTION
ARCH/ENG	CTE ENGINEERS
REFERENCE	
ITEM	
FINISH	SEE NOTES - SHT. E1

ALL HOLES	ELECTRODES	JOB MGR	DRAWN BY	CHECKED BY	MRH NO.	JOB NO.	SHEET
U.N.O.	E70xx	JL	MRH 11-21-03	LRH 03-26-04	0335	03-1394	E2 OF E6

1640092092
1665460053

FOR INFORMATION ONLY

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME =	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
ABC-sht-6546ex-042.dgn	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (42 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-42 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1037
CDOT PROJECT NO. B-7-203		SN 016-6546		
		ILLINOIS FED. AID PROJECT		

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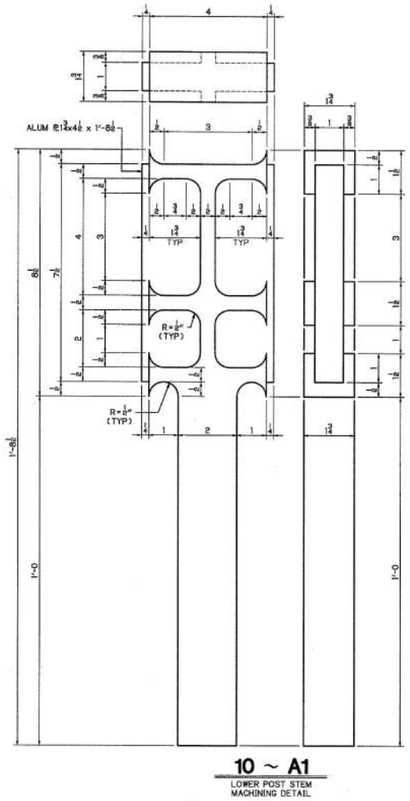
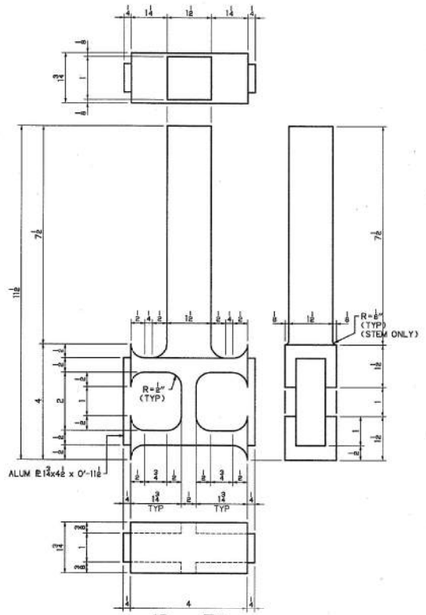
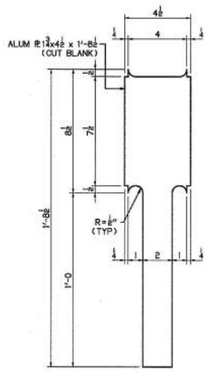


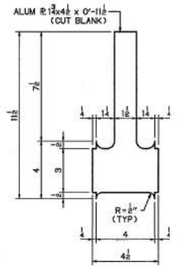
10 ~ A1
LOWER POST STEM
MACHINING DETAIL



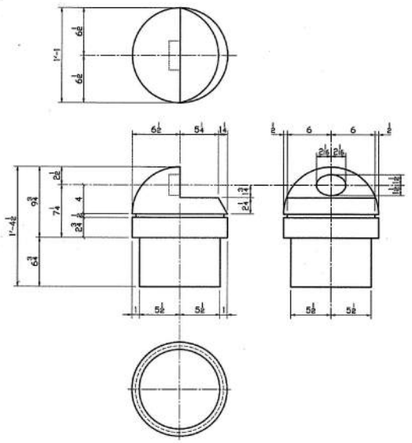
10 ~ B1
UPPER POST STEM
MACHINING DETAIL



CUT BLANK OF A1
LOWER POST STEM



CUT BLANK OF B1
UPPER POST STEM



2 ~ C1
ALUMINUM FINIALS

BILL OF MATERIAL

NO	MK	NO	SUBMK	MATERIAL	FT	IN	REMARKS	SORT
10	A1			ALUM ℄ 1¾x4½	1	8½	LOWER POST STEM	PL
10	B1			ALUM ℄ 1¾x4½	0	11½	UPPER POST STEM	PL
2	C1			ALUMINUM FINIALS			SEE DETAIL	MI
				FIELD BOLTS				
4	6			SS ½" SET SCREW (TYPE 304)	0	½	TAMPER PROOF HEAD	MI
6	8			SS ½" RHMB (TYPE 304)	0	⅝	TAMPER PROOF HEAD	MI
9	10			SS ½" FHMB (TYPE 304)	0	1	TAMPER PROOF HEAD	MI
44	45			SS ½" RHMB (TYPE 304)	0	2¾	TAMPER PROOF HEAD	MI
6	8			⅝" RAWL DOUBLE EXP. ANC.	0	2	RAWL #9520	MI
44	45			½" RAWL DOUBLE EXP. ANC.	0	2½	RAWL #9525	MI

As-Built - Record Shop Drawings

P.H. DREW INC.
2450 N. RACEWAY RD. - P.O. BOX 34295
INDIANAPOLIS, INDIANA 46234
PHONE : (317) 297-5152
FAX : (317) 297-5313

SOUTH LAKE SHORE DRIVE RECONSTRUCTION
UNDERPASS @ 63RD STREET - ALUM. RAILS
UPPER & LOWER POST DETAILS

REV	DATE	REVISION	BY
1	03-26-04	REV. PER CHECK	MRH
2	04-08-04	REV. FIELD BOLTS	MRH
3	07-30-04	REV. SHEET NO	MRH

IN	SEPIA	PRINT RECORD	DATE
7		DISTRIBUTION	03-26-04
7		DISTRIBUTION	04-08-04

STATE ILLINOIS
COUNTY COOK (CHICAGO)
PROJECT B-1-441
CONTRACT 3
SECTION 00-B0241-07-LS
STRUCTURE 016-6546
STATE JOB
CUSTOMER STEPPO SUPPLY & CONST., INC.
CONTRACTOR WALSH CONSTRUCTION
ARCH/ENG CTE ENGINEERS
REFERENCE
ITEM
FINISH SEE NOTES - SHT. E1

ALL HOLES	ELECTRODES	JOB MGR	DRAWN BY	CHECKED BY	MFR NO.	JOB NO.	SHEET
UNO	E70xx	JL	MRH 03-24-04	LRH 03-26-04	0335	03-1394	1 OF 22

1640092097
1665A60054

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-043.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (43 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-43 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1038
	CDOT PROJECT NO. B-7-203		SN 016-6546	
		ILLINOIS FED. AID PROJECT		

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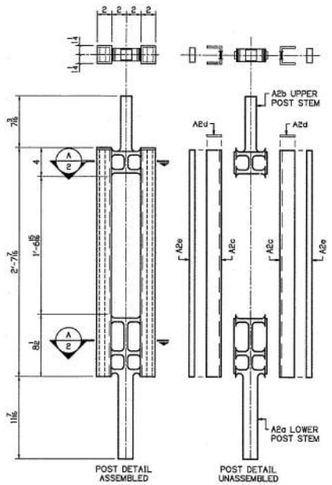
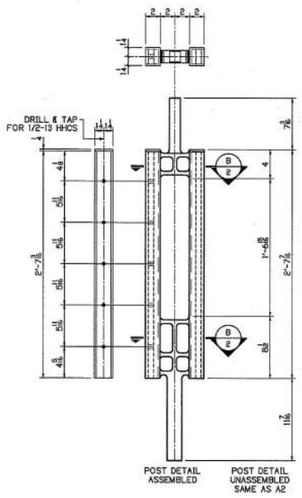
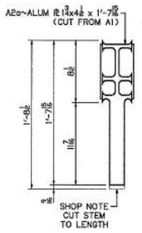
3/31/2020



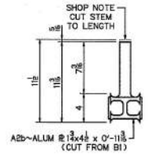
4 ~ A2
SOUTH STANDARD POSTS



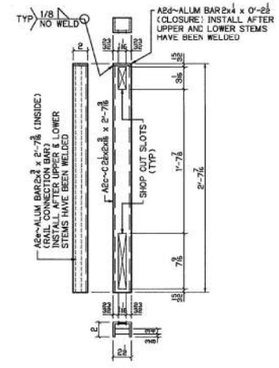
1 ~ B2
SOUTH SPLICE POST



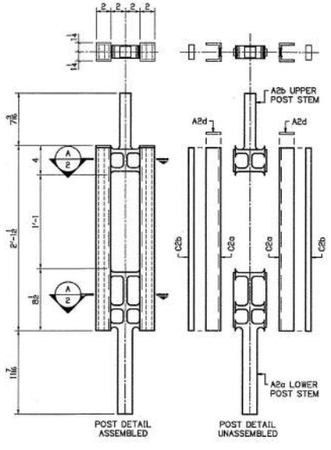
DETAIL OF A2a
LOWER POST STEM



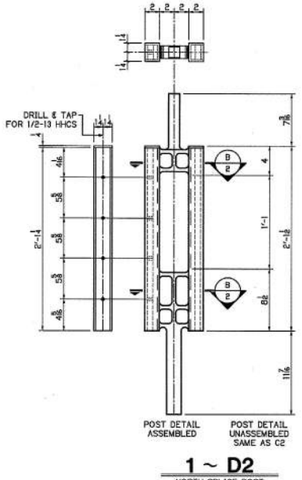
DETAIL OF A2b
UPPER POST STEM



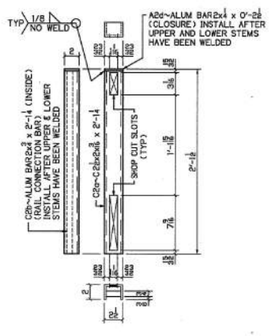
DETAIL OF A2c, A2d & A2e
POST SIDES



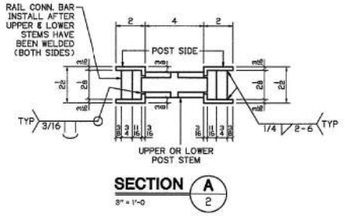
4 ~ C2
NORTH STANDARD POSTS



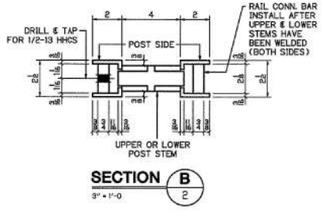
1 ~ D2
NORTH SPLICE POST



DETAIL OF C2a, C2b & A2d
POST SIDES



SECTION A
3" = 1'-0



SECTION B
3" = 1'-0

BILL OF MATERIAL

NO	MK	NO	SUBMK	MATERIAL	FT	IN	REMARKS	SORT
4	A2			SOUTH STANDARD POSTS				MM
		4	A2a	ALUM ℝ 1¾x4½	1	7⅞	CUT FROM A1	PL
		4	A2b	ALUM ℝ 1¾x4½	0	11⅜	CUT FROM B1	PL
		8	A2c	ALUM C2½x3⅜	2	7⅞	SCRE (POST SIDE)	C
		8	A2d	ALUM BAR 2x4	0	2½	CLOSURE	B
		8	A2e	ALUM BAR 2x4	2	7⅞	SCRE (RAIL CONN. BAR)	B
1	B2			SOUTH SPLICE POST				MM
		1	A2a	ALUM ℝ 1¾x4½	1	7⅞	CUT FROM A1	PL
		1	A2b	ALUM ℝ 1¾x4½	0	11⅜	CUT FROM B1	PL
		2	A2c	ALUM C2½x3⅜	2	7⅞	SCRE (POST SIDE)	C
		2	A2d	ALUM BAR 2x4	0	2½	CLOSURE	B
		2	A2e	ALUM BAR 2x4	2	7⅞	SCRE (RAIL CONN. BAR)	B
4	C2			NORTH STANDARD POSTS				MM
		8	C2a	ALUM C2½x3⅜	2	1¼	SCRE (POST SIDE)	C
		8	C2b	ALUM BAR 2x4	2	1¼	SCRE (RAIL CONN. BAR)	B
		4	A2a	ALUM ℝ 1¾x4½	1	7⅞	CUT FROM A1	PL
		4	A2b	ALUM ℝ 1¾x4½	0	11⅜	CUT FROM B1	PL
		8	A2d	ALUM BAR 2x4	0	2½	CLOSURE	B
1	D2			NORTH SPLICE POST				MM
		2	C2a	ALUM C2½x3⅜	2	1¼	SCRE (POST SIDE)	C
		2	C2b	ALUM BAR 2x4	2	1¼	SCRE (RAIL CONN. BAR)	B
		1	A2a	ALUM ℝ 1¾x4½	1	7⅞	CUT FROM A1	PL
		1	A2b	ALUM ℝ 1¾x4½	0	11⅜	CUT FROM B1	PL
		2	A2d	ALUM BAR 2x4	0	2½	CLOSURE	B

As-Built - Record Shop Drawings

P.H. DREW INC.
2450 N. RACEWAY RD. - P.O. BOX 34295
INDIANAPOLIS, INDIANA 46234
PHONE : (317) 297-5152
FAX : (317) 297-5313

SOUTH LAKE SHORE DRIVE RECONSTRUCTION
UNDERPASS @ 63RD STREET - ALUM. RAILS
POST ASSEMBLY DETAILS

REV	DATE	REVISION	BY
1	03-26-04	REV. PER CHECK	MRH
2	04-08-04	REV. WELD OF A2d PER APP	MRH
3	07-30-04	REV. SHEET NO	MRH
4			
5			

STATE	ILLINOIS		
COUNTY	COOK (CHICAGO)		
PROJECT	B-1-44)		
CONTRACT	3		
SECTION	00-80241-07-LS		
STRUCTURE	016-6546		
STATE JOB			
CUSTOMER	STEPPO SUPPLY & CONST., INC.		
CONTRACTOR	WALSH CONSTRUCTION		
ARCH/ENG	CTE ENGINEERS		
REFERENCE			
ITEM			
FINISH	SEE NOTES - SHT. E1		

BL	SEPIA	PRINT RECORD	DATE
7		DISTRIBUTION	03-26-04
7		DISTRIBUTION	04-08-04

ALL HOLES	ELECTRODES	JOB MIX	DRAWN BY	CHECKED BY	MRH NO.	JOB NO.	SHEET
U.N.O.	E70xx	JL	MRH 03-24-04	LRH 03-26-04	0335	03-1394	2 OF 22

1640092098
1665460055

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-044.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (44 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-44 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1039
CDOT PROJECT NO.	B-7-203	SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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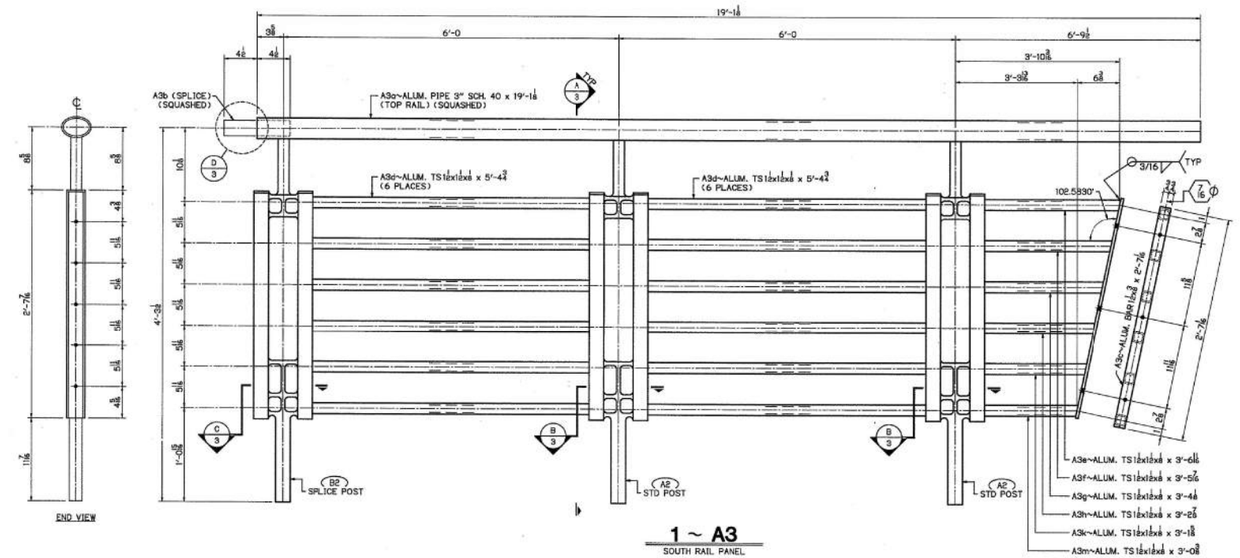
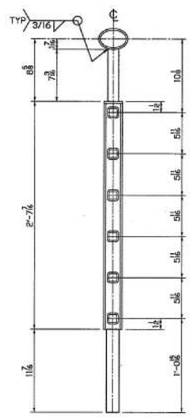
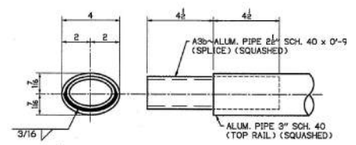


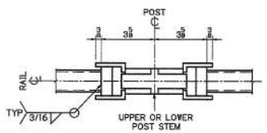
1 ~ A3
SOUTH RAIL PANEL



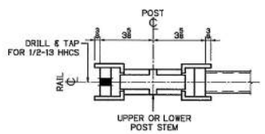
SECTION A
1 1/2" = 1'-0



DETAIL D
3" = 1'-0



SECTION B
3" = 1'-0



SECTION C
3" = 1'-0

BILL OF MATERIAL

NO	MK	NO	SUBMK	MATERIAL	FT	IN	REMARKS	SORT
1	A3			SOUTH RAIL PANEL				MM
		1	A3a	ALUM PIPE 3" SCH 40	19	1 1/8	SCEE (SQUASHED)	P
		1	A3b	ALUM PIPE 2 1/2" SCH 40	0	9	SCEE (SQUASHED)	P
		1	A3c	ALUM BAR 1 5/8x1/8	2	7 5/8		B
		12	A3d	ALUM TS 1 5/8x1 5/8x1/8	5	4 3/8	SCEE	TS
		1	A3e	ALUM TS 1 5/8x1 5/8x1/8	3	6 1/8	SCIE, BCIE	TS
		1	A3f	ALUM TS 1 5/8x1 5/8x1/8	3	5 5/8	SCIE, BCIE	TS
		1	A3g	ALUM TS 1 5/8x1 5/8x1/8	3	4 1/8	SCIE, BCIE	TS
		1	A3h	ALUM TS 1 5/8x1 5/8x1/8	3	2 5/8	SCIE, BCIE	TS
		1	A3k	ALUM TS 1 5/8x1 5/8x1/8	3	1 1/8	SCIE, BCIE	TS
		1	A3m	ALUM TS 1 5/8x1 5/8x1/8	3	0 3/8	SCIE, BCIE	TS
		2	A2	STANDARD POSTS				
		1	B2	SPLICE POST				

As-Built - Record Shop Drawings

P.H. DREW INC.
2450 N. RACEWAY RD. - P.O. BOX 34295, INDIANAPOLIS, INDIANA 46234
PHONE : (317) 297-5152 FAX : (317) 297-5919

SOUTH LAKE SHORE DRIVE RECONSTRUCTION
UNDERPASS @ 63RD STREET - ALUM. RAILS
RAIL PANEL DETAILS

REV	DATE	REVISION	BY
1	03-26-04	REV. PER CHECK	MRH
2	04-08-04	REV. PER APPROVAL	MRH
3	04-27-04	REV. PER FIELD MEASURE	MRH
4	07-30-04	REV. SHEET NO	MRH
5			
6			

PRINT RECORD		
7	DISTRIBUTION	03-26-04
7	DISTRIBUTION	04-08-04
7	DISTRIBUTION	04-27-04

ALL HOLES U.N.O.	ELECTRODES	JOB MIX	DRAWN BY	CHECKED BY
	E70xx	JL	MRH 03-24-04	LRH 03-26-04

STATE ILLINOIS
COUNTY COOK (CHICAGO)
PROJECT B-1-441
CONTRACT 3
SECTION 00-B0241-07-LS
STRUCTURE 016-6546
STATE JOB
CUSTOMER STEPPO SUPPLY & CONST., INC.
CONTRACTOR WALSH CONSTRUCTION
ARCH/ENG CTE ENGINEERS
REFERENCE
ITEM
FINISH SEE NOTES - SHT. E1

MRH NO.	JOB NO.	SHEET
0335	03-1394	3 OF 22

1640092099
1665460056

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-045.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (45 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-45 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1040
CDOT PROJECT NO.	B-7-203	SN 016-6546		
	ILLINOIS FED. AID PROJECT			

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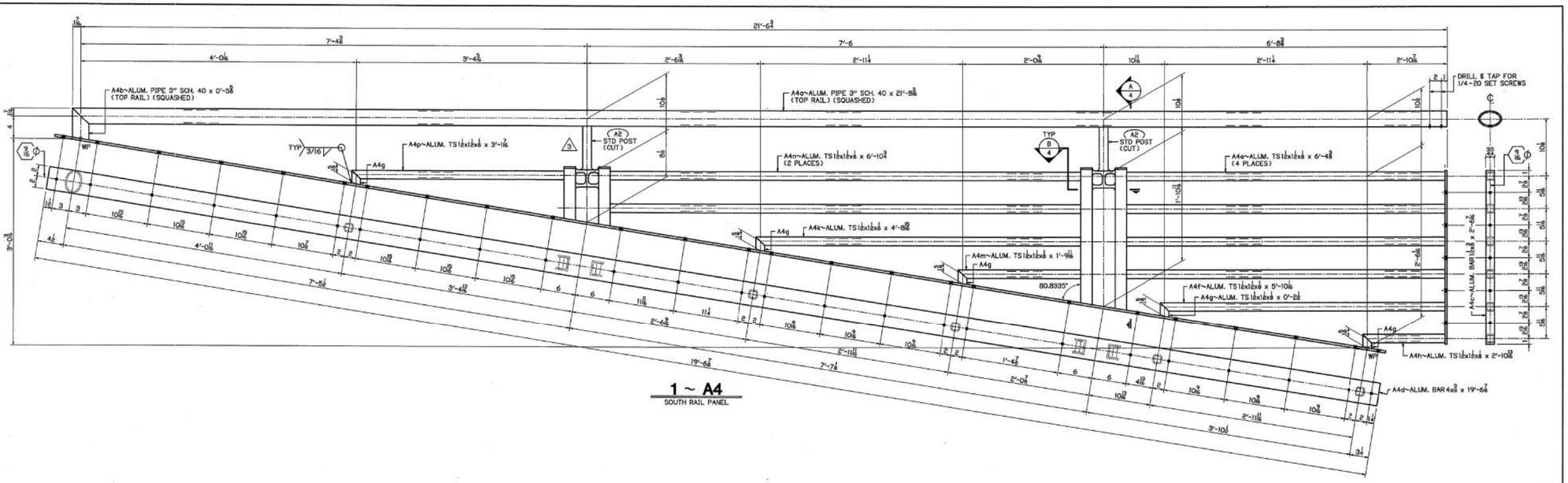
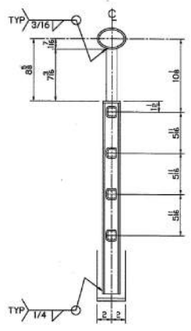
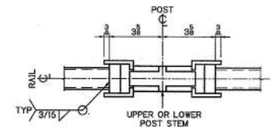


1 ~ A4
SOUTH RAIL PANEL



SECTION A 4
1 1/2" = 1'-0



SECTION B 4
3" = 1'-0

BILL OF MATERIAL

NO	MK	NO	SUBMK	MATERIAL	FT	IN	REMARKS	SORT
1	A4			SOUTH RAIL PANEL				MM
		1	A4a	ALUM PIPE 3" SCH 40	21	8 3/8	SCBE (SQUASHED)	P
		1	A4b	ALUM PIPE 3" SCH 40	0	5 3/8	SCBE (SQUASHED)	P
		1	A4c	ALUM BAR 1 1/2x3/8	2	6 1/4		B
		1	A4d	ALUM BAR 4x3/8	19	6 3/8		B
		4	A4e	ALUM TS1 1/2x1x1/8	6	4 3/8	SCBE	TS
		1	A4f	ALUM TS1 1/2x1x1/8	5	10 1/16	SCIE, BCIE	TS
		5	A4g	ALUM TS1 1/2x1x1/8	0	2 1/4	BCBE	TS
		1	A4h	ALUM TS1 1/2x1x1/8	2	10 13/16	SCIE, BCIE	TS
		1	A4k	ALUM TS1 1/2x1x1/8	4	8 3/8	SCIE, BCIE	TS
		1	A4m	ALUM TS1 1/2x1x1/8	1	9 1/16	SCIE, BCIE	TS
		2	A4n	ALUM TS1 1/2x1x1/8	6	10 7/8	SCBE	TS
		1	A4p	ALUM TS1 1/2x1x1/8	3	1 1/16	SCIE, BCIE	TS
		2	A2	STANDARD POSTS				

As-Built - Record Shop Drawings

P.H. DREW INC.
2450 N. RACEWAY RD. - P.O. BOX 34295
INDIANAPOLIS, INDIANA 46234
PHONE : (317) 297-5152
FAX : (317) 297-5313

SOUTH LAKE SHORE DRIVE RECONSTRUCTION
UNDERPASS @ 63RD STREET - ALUM. RAILS
RAIL PANEL DETAILS

REV	DATE	REVISION	BY
1	03-26-04	REV. PER CHECK	MRH
2	04-08-04	REV. PER APPROVAL	MRH
3	04-19-04	REV. POST LOCATION	MRH
4	07-30-04	REV. SHEET NO	MRH
5			
6			

IN	SEPIA	PRINT RECORD	DATE
7		DISTRIBUTION	03-26-04
7		DISTRIBUTION	04-08-04
7		DISTRIBUTION	04-20-04

STATE ILLINOIS
COUNTY COOK (CHICAGO)
PROJECT B-1-441
CONTRACT 3
SECTION 00-B0241-07-LS
STRUCTURE 016-6546
STATE JOB
OWNER STEPPO SUPPLY & CONST., INC.
CONTRACTOR WALSH CONSTRUCTION
ARCH/ENG CTE ENGINEERS
REFERENCE
ITEM
FINISH SEE NOTES - SHT. E1

ALL HOLES U.N.O.	ELECTRODES	JOB MIX	DRAWN BY	CHECKED BY	MRH NO.	JOB NO.	SHEET
	E70xx	JL	MRH 03-24-04	LRH 03-26-04	0335	03-1394	4 OF 22

1640092100
1665460057

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-046.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (46 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-46 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1041
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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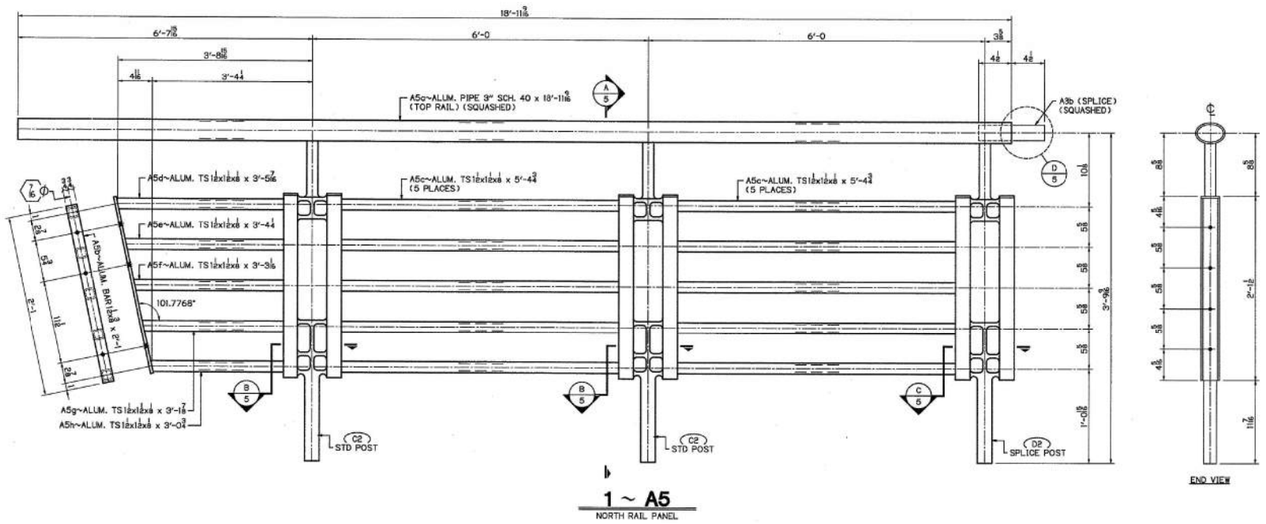
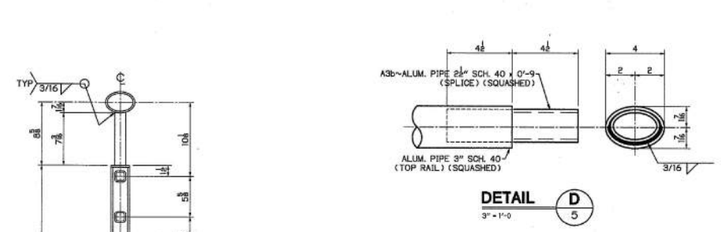


END VIEW

1 ~ A5
NORTH RAIL PANEL



DETAIL D (5) 3" = 1'-0

SECTION A (5) 1 1/2" = 1'-0

SECTION B (5) 3" = 1'-0

SECTION C (5) 3" = 1'-0

BILL OF MATERIAL

NO	MK	NO	SUBMK	MATERIAL	FT	IN	REMARKS	SORT
1	A5			NORTH RAIL PANEL				MM
		1	A5a	ALUM PIPE 3" SCH 40	18	11 3/8	SCRE (SQUASHED)	P
		1	A5b	ALUM BAR 1/4"x3"	2	1		B
		10	A5c	ALUM TS 1"x1"x1/4"	5	4 3/4	SCRE	TS
		1	A5d	ALUM TS 1"x1"x1/4"	3	5 7/16	SCIE, BCIE	TS
		1	A5e	ALUM TS 1"x1"x1/4"	3	4 1/4	SCIE, BCIE	TS
		1	A5f	ALUM TS 1"x1"x1/4"	3	3 1/16	SCIE, BCIE	TS
		1	A5g	ALUM TS 1"x1"x1/4"	3	1 7/8	SCIE, BCIE	TS
		1	A5h	ALUM TS 1"x1"x1/4"	3	0 3/4	SCIE, BCIE	TS
		1	A3b	ALUM PIPE 2 1/2" SCH 40	0	9	SCRE (SQUASHED)	P
		2	C2	STANDARD POSTS				
		1	D2	SPLICE POST				

As-Built - Record Shop Drawings

P.H. DREW INC.
8450 N. RACEWAY RD. - P.O. BOX 34295, INDIANAPOLIS, INDIANA 46234
PHONE : (317) 297-5152 FAX : (317) 297-5313

SOUTH LAKE SHORE DRIVE RECONSTRUCTION
UNDERPASS @ 63RD STREET - ALUM. RAILS
RAIL PANEL DETAILS

REV	DATE	REVISION	BY
1	03-26-04	REV. PER CHECK	MRH
2	07-30-04	REV. SHEET NO	MRH
3			
4			
5			
6			

SEPIA	PRINT RECORD	DATE
7	DISTRIBUTION	03-26-04
7	DISTRIBUTION	04-08-04

STATE: ILLINOIS
COUNTY: COOK (CHICAGO)
PROJECT: B-1-441
CONTRACT: 3
SECTION: 00-B0241-07-LS
STRUCTURE: 016-6546
STATE JOB:
CUSTOMER: STEPPO SUPPLY & CONST., INC.
CONTRACTOR: WALSH CONSTRUCTION
ARCHITECT: CTE ENGINEERS
REFERENCE:
ITEM:
FINISH: SEE NOTES - SHT. E1

ALL POLES U.N.O.	ELECTRODES	JOB M&R	DRAWN BY	CHECKED BY	MRH NO.	JOB NO.	SHEET
	E70xx	JL	MRH 03-24-04	LRH 03-26-04	0335	03-1394	5 OF 22

1640092101
1605460058

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

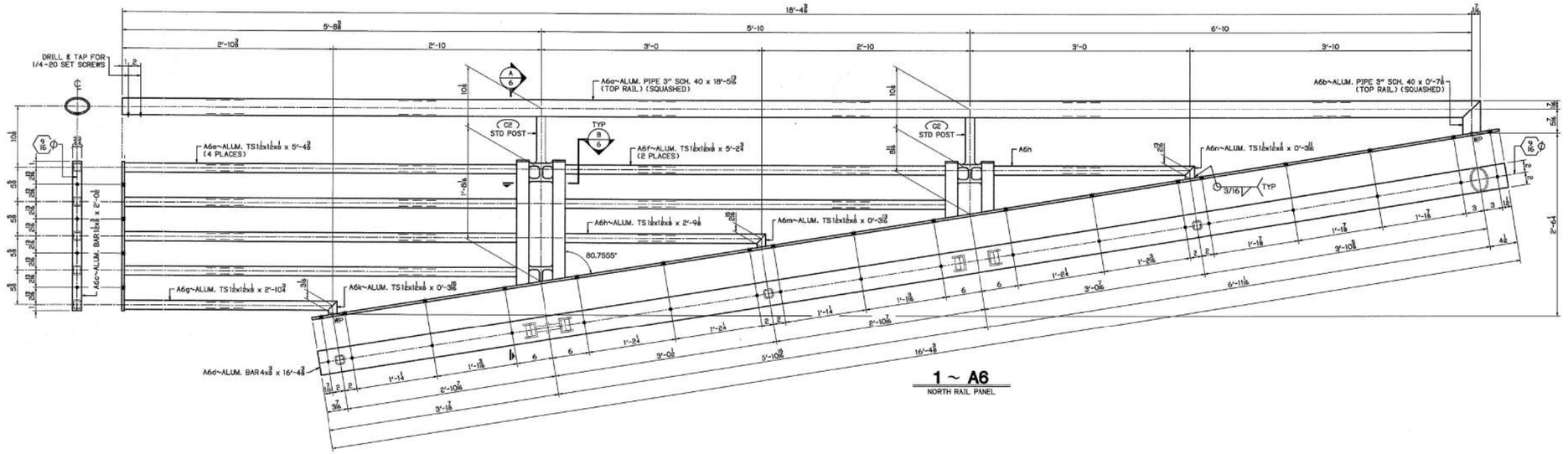
FILE NAME = ABC-sht-6546ex-047.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

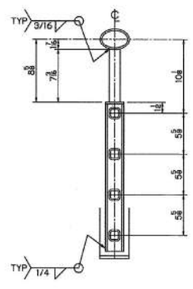
CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

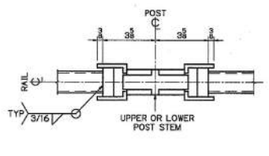
EXISTING PLANS (47 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-47 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1042
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS	FED. AID PROJECT			

3/31/2020 10:02:44 AM c:\pw_working\civiltech_production\pw~jsurber\dms31893\ABC-sht-6546ex-047.dgn







BILL OF MATERIAL

NO.	MK.	NO.	SUBMK.	MATERIAL	FT.	IN.	REMARKS	SORT
1	A6			NORTH RAIL PANEL				MM
		1	A6a	ALUM PIPE 3" SCH 40	18	05 1/2	SCRE (SQUASHED)	P
		1	A6b	ALUM PIPE 3" SCH 40	0	7 1/8	SCRE (SQUASHED)	P
		1	A6c	ALUM BAR 1.5x0.1	2	0 1/8		B
		1	A6d	ALUM BAR 4x0.1	16	4 3/8		B
		4	A6e	ALUM TS1.5x1.5x0.1	5	4 3/8	SCRE	TS
		2	A6f	ALUM TS1.5x1.5x0.1	5	2 1/8	SCRE	TS
		1	A6g	ALUM TS1.5x1.5x0.1	2	10 1/2	SCIE, BCIE	TS
		2	A6h	ALUM TS1.5x1.5x0.1	2	9 1/4	SCIE, BCIE	TS
		1	A6k	ALUM TS1.5x1.5x0.1	0	3 1/2	BCRE	TS
		1	A6m	ALUM TS1.5x1.5x0.1	0	3 1/2	BCRE	TS
		1	A6n	ALUM TS1.5x1.5x0.1	0	3 1/8	BCRE	TS
		2	C2	STANDARD POSTS				

As-Builts - Record Shop Drawings

P.H. DREW INC.
2450 N. RACEWAY RD. - P.O. BOX 34295
INDIANAPOLIS, INDIANA 46234
PHONE : (317) 297-5152
FAX : (317) 297-5313

SOUTH LAKE SHORE DRIVE RECONSTRUCTION
UNDERPASS @ 63RD STREET - ALUM. RAILS
RAIL PANEL DETAILS

REV.	DATE	REVISION	BY
1	09-26-04	REV. PER CHECK	MRH
2	04-27-04	REV. PER FIELD MEASURE	MRH
3	07-30-04	REV. SHEET NO	MRH
4			
5			
6			

24x36, 11x17	PRINT RECORD	DATE
7	DISTRIBUTION	03-26-04
7	DISTRIBUTION	04-08-04
7	DISTRIBUTION	04-27-03

ALL HOLES	ELECTRODES	JOB MGR.	DRAWN BY	CHECKED BY
UNO.	E70xx	JL	MRH 03-24-04	LRH 03-26-04

STATE ILLINOIS
COUNTY COOK (CHICAGO)
PROJECT B-1-441
CONTRACT 3
SECTION 00-B0241-07-LS
STRUCTURE 016-6546
STATE JOB
CUSTOMER STEPPO SUPPLY & CONST., INC.
CONTRACTOR WALSH CONSTRUCTION
ENGINEERS CTE ENGINEERS
REFERENCE
ITEM
FINISH SEE NOTES - SHT. E1

MFR NO.	JOB NO.	SHEET
0335	03-1394	6 OF 22

16A0092102
16654600159

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

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FILE NAME = ABC-sht-6546ex-048.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -
		CHECKED - JLW	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (48 OF 50)
STRUCTURE NO. 016-6546
SHEET NO. SEX-48 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1043
CDOT PROJECT NO. B-7-203		SN 016-6546		
		ILLINOIS FED. AID PROJECT		

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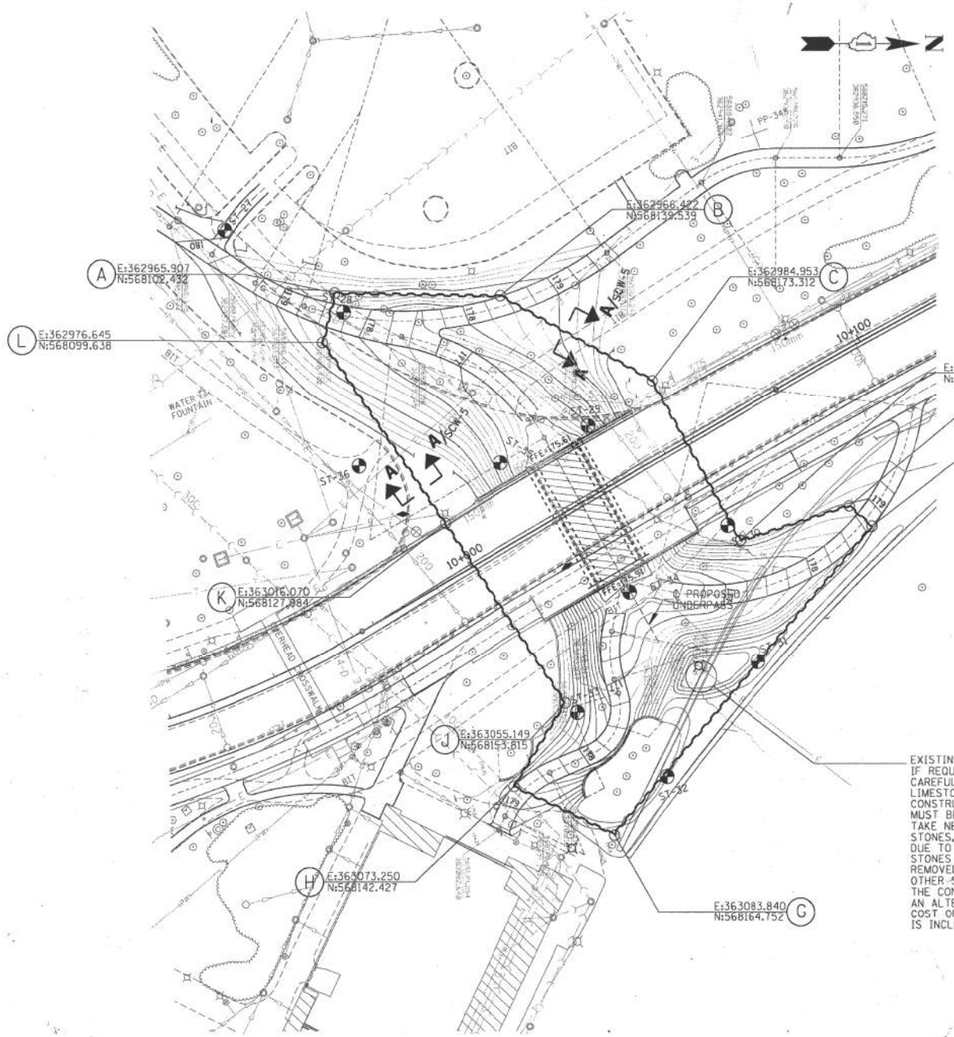
TOTAL SHEETS	SHEET NO.
645	224

CUT-OFF WALL SCHEDULE

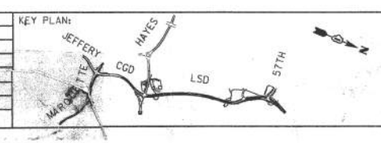
SEGMENT	TYPE	PILE SECTION (MIN. SECTION MODULUS REQUIRED)	PILE TIP ELEVATION
C-D, D-E, E-F, F-G, G-H, H-J, J-K, K-L	CUT-OFF WALL	AZ13 (1300 cm^3/m)	169.6
A-B, B-C, A-L	CUT-OFF WALL	AZ13 (1300 cm^3/m)	170.8



RECORD DOCUMENT

DESIGN:	MAK				
DRAWN:	JS				
CHECKED:	DPV				
APPROVED:	DPV				
DATE:	4/16/02				
SCALE:					
FILE:		NO.	BY	DATE	DESCRIPTION
		REVISIONS			

KEY PLAN:



CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

CUT-OFF WALLS AT 63rd STREET

CONTRACT NO. 00-B0241-06-PV
DRAWING NO. SCW-2
PROJECT NO. B-1-443
1665460012
1640091995

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FOR INFORMATION ONLY

FILE NAME = ABC-sht-6546ex-049.dgn	USER NAME = jsurber	DESIGNED - CJC	REVISED -	CITY OF CHICAGO DEPARTMENT OF TRANSPORATION DIVISION OF ENGINEERING	EXISTING PLANS (49 OF 50) STRUCTURE NO. 016-6546
		CHECKED - JLW	REVISED -		
	PLOT SCALE =	DRAWN - RMG	REVISED -		SHEET NO. SEX-49 OF 50 SHEETS
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1044
CDOT PROJECT NO.	B-7-203	SN 016-6546		
ILLINOIS FED. AID PROJECT				

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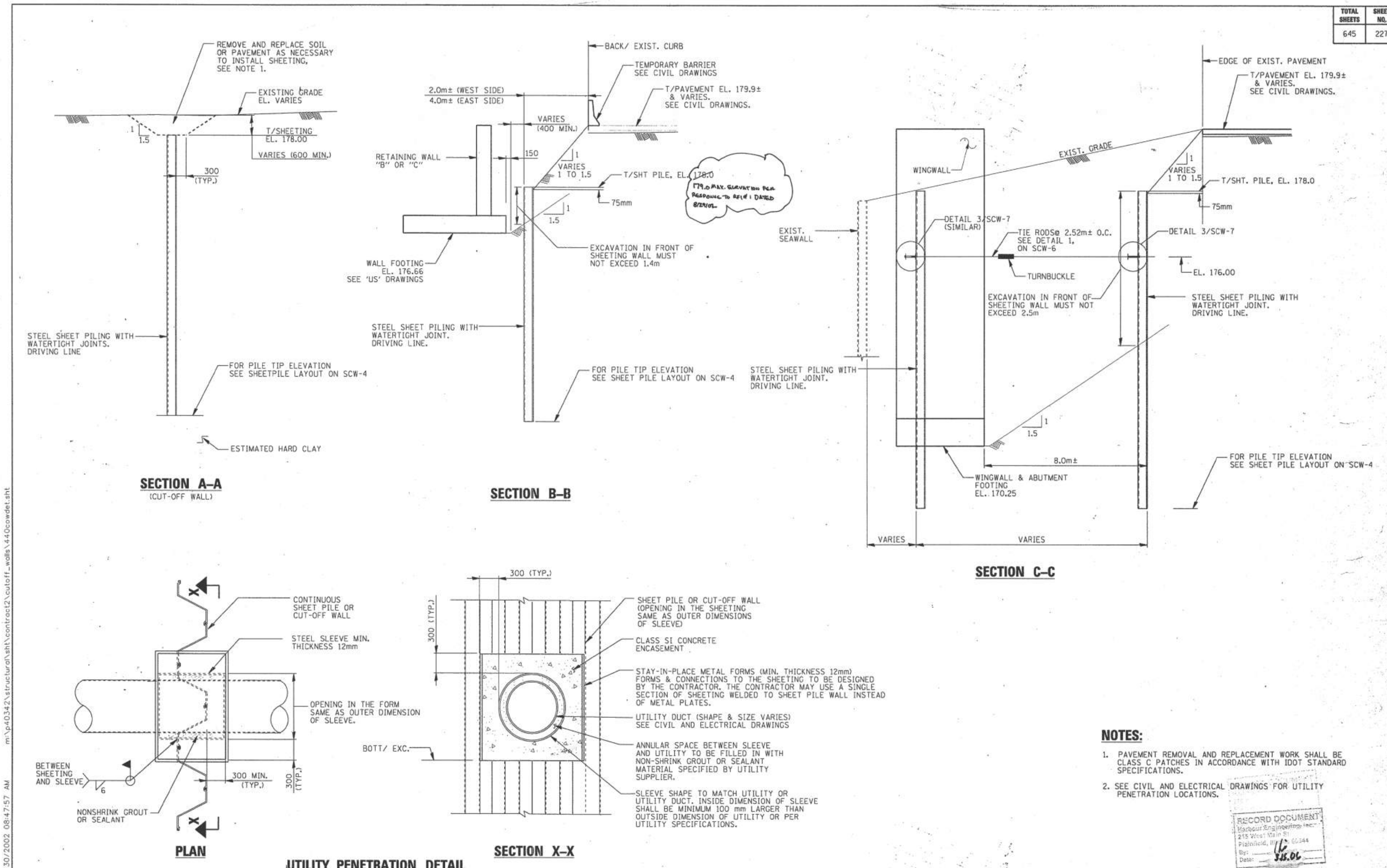
10:04:18 AM
3/31/2020

TOTAL SHEETS	SHEET NO.
645	227



NOTES:

1. PAVEMENT REMOVAL AND REPLACEMENT WORK SHALL BE CLASS C PATCHES IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS.
2. SEE CIVIL AND ELECTRICAL DRAWINGS FOR UTILITY PENETRATION LOCATIONS.

RECORD DOCUMENT
Date: 3.5.06

04/30/2002 08:47:57 AM m:\p40342\structural\sht\contract2\cutoff_walls\440cowdet.sht

DESIGN: SG					
DRAWN: JS					
CHECKED: DPV					
APPROVED: DPV					
DATE: 4/16/02					
SCALE: NONE					
FILE:	NO.	BY	DATE	DESCRIPTION	
	REVISIONS				

KEY PLAN: JEFFERY, HAYES, CCD, LSD, 57TH, MARQUETTE

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

SOUTH LAKE SHORE DRIVE
JACKSON PARK SECTION
MAINLINE RECONSTRUCTION

CUT–OFF WALLS AND SEAWALLS
SECTIONS AND DETAILS

CONTRACT NO. 00–B0241–06–PV
DRAWING NO. SCW–5
PROJECT NO. B-1-440

1665450015
1661970040
1640091498

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

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		CHECKED - JLW	REVISED -
ABC-sht-6546ex-050.dgn	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 3/31/2020	CHECKED - CJC	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (50 OF 50)
STRUCTURE NO. 016–6546
SHEET NO. SEX-50 OF 50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1045
CDOT PROJECT NO. B-7-203		SN 016-6546		
		ILLINOIS FED. AID PROJECT		

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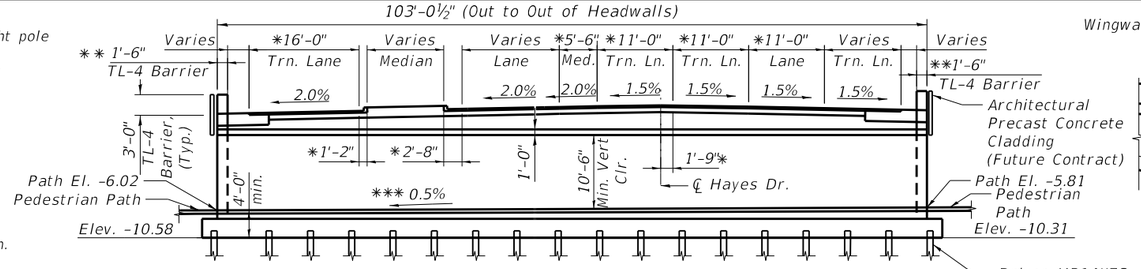
Bench Mark:
Cut "X" on N.E. bolt of 2nd light pole east of Inner Harbor Bridge, east of Richards Dr. and near south curb of E. Hayes Dr., Elevation = 15.48 Chicago City Datum (CCD).

Existing Structure: None.

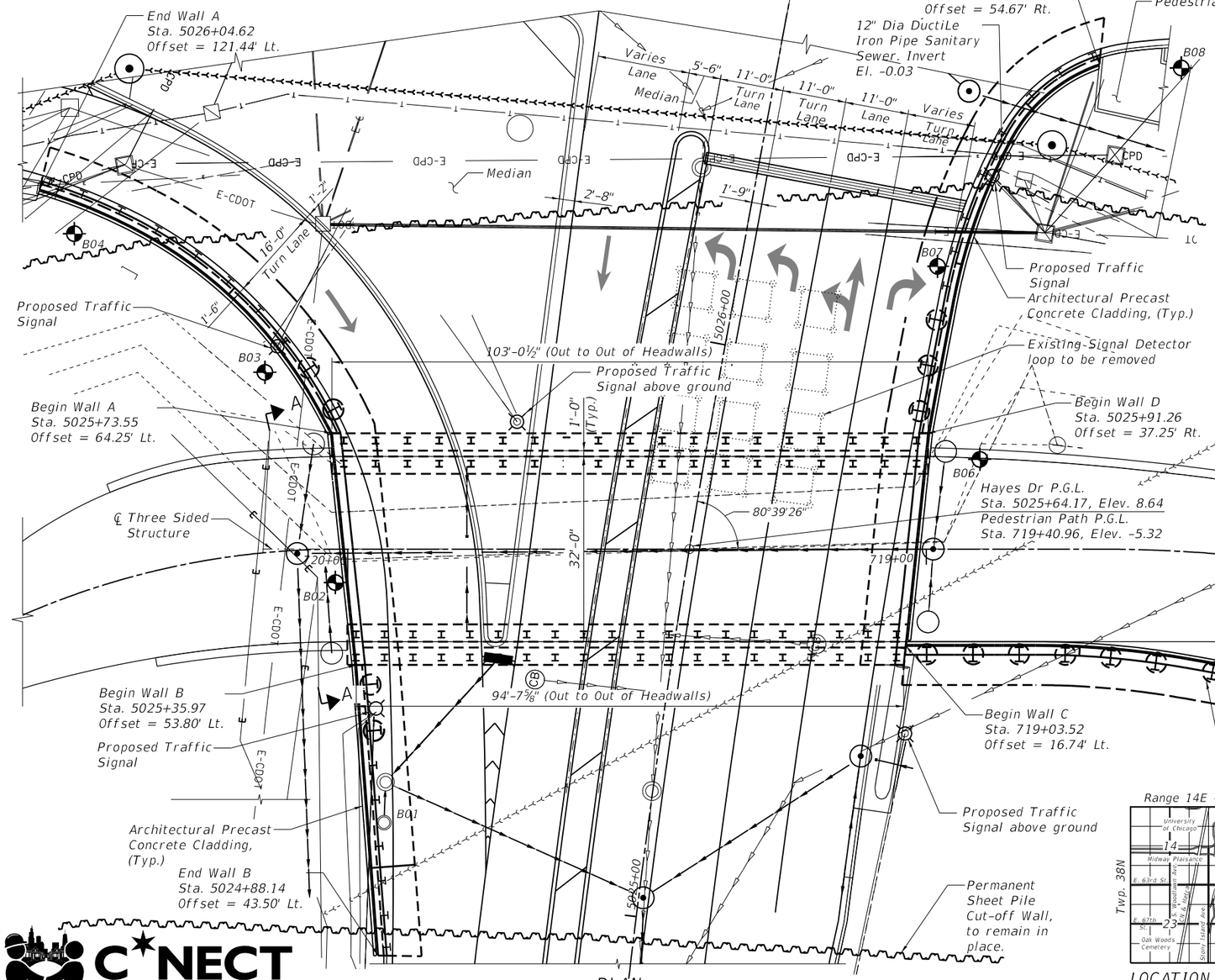
New Structure to be built on new alignment. Traffic to be maintained on existing Cornell Dr. during construction.



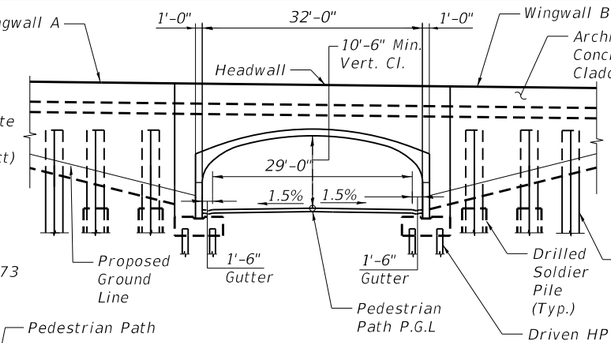
*Measured perpendicular to direction of traffic
**Measured perpendicular to headwall
***See Pedestrian Path Profile Grade on Sheet SF-2.

LONGITUDINAL SECTION

(Along East Wall of Three Sided Structure, Looking East)



PLAN



ELEVATION A-A

KENNETH P. SMORYNSKI
081-005763
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

Kenneth P. Smorynski

Expiration Date: 11-30-2022
Date: 04-10-2020

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications 8th Edition

LOADING HL-93

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

WALL DEFLECTION CRITERIA

At any location maximum total lateral deflection at the top of the wall shall not exceed 1.0 inch or 1% exposed height of the wall whichever is minimum.

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

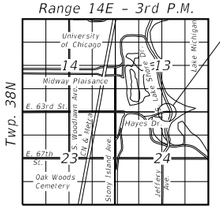
f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec $(SD)_1$= 0.087g
Design Spectral Acceleration at 0.2 sec $(SD)_S$= 0.146g
Soil Site Class = D

LEGEND

- ATT Existing Underground Telephone to remain in place
- E-CPD — CPD Existing Underground Electrical Cable to be removed and replaced
- E-CDOT — CDOT Existing Underground Electrical Cable to be removed and replaced
- CPD Existing Underground Sanitary Sewer to be removed.
- DWM Existing Underground Storm Sewer to be removed
- Proposed Drainage Storm Sewer
- E E CPD Proposed Electrical Conduit
- CPD Proposed Lighting Conduit
- CDOT Proposed Lighting Conduit
- OEMC Electrical Proposed Cable
- Soil Boring Location
- CB Existing Catch Basin
- Existing Manhole
- Proposed Drainage Inlet
- Proposed Catch Basin
- Proposed Manhole



LOCATION SKETCH

Proposed Structure

Note: Stations and offsets for Walls A, B, and D are measured from ℄ Hayes Dr. to front face of cast-in-place wall (not including architectural precast concrete cladding). Wall C Stations and Offsets are measured from Centerline of Pedestrian Path.

GENERAL PLAN AND ELEVATION
UNDERPASS AT HAYES DRIVE
F.A.U. 1520 - SEC. 17-B7203-00-ES
COOK COUNTY
STATION 5025+64.17
STRUCTURE NO. 016-6290

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6290-gpe.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - KPS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SHEET NO. SF-1 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1046
CDOT PROJECT NO.	B-7-203	SN 016-6290		
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.

2. No field welding is permitted except as specified in the contract documents.

3. The foundation design is based on the following maximum factored reactions applied at the top of each of the H-piles:

   122 kips (vertical), 13 kips (horizontal)

   The contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete foundation design with calculations, details, and the required seals shall be submitted for review and approval.

4. The contractor shall furnish all tools, materials and equipment necessary to ensure that the precast units do not incur cracking while being transported to and from the project site, stored during construction and when being installed.

5. Protective Concrete Sealer shall be applied to the entire top surface and inside vertical face of proposed barrier along with the entire top surface of the exposed gutter of the proposed moment slab and the top of proposed Retaining Wall and Headwall. All surfaces to be sealed shall be cleaned thoroughly prior to Protective Concrete Sealer application. See Special Provisions.

6. The Contractor must make his/her own investigation to determine the existence, nature and exact location of all utility lines and appurtenances within the limits of the project. The Contractor must provide all measures and precautions necessary to protect existing and new utilities.

7. Groundwater information at this location is included in the geotechnical report. All excavation for structures must be kept dewatered during construction operations until backfill is in place and provisions must be made to prevent the bottom of all excavations from freezing or flooding at all times. This work shall be paid for at the contract lump sum price for Dewatering Location #4. See Special Provisions.

8. Granular Backfill for Structures shall be placed per Article 586 of the 2019 Supplemental Specifications except mechanical compaction shall be required per Articles 502 and 205 of the Standard Specifications.

9. All structural steel shall be AASHTO M270 Grade 50.

10. The Contractor is responsible for the design and performance of the lagging using no less than a 3" nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.

11. Architectural Precast Concrete Cladding is shown for reference only. Architectural Precast Concrete Cladding will be furnished and erected under a separate contract.

12. Slipforming of the barrier is not allowed.

13. See Traffic Signals and Electrical plans for traffic signal and lighting details.

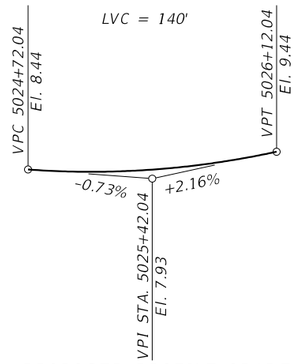
14. See Drainage plans for drainage details.

15. All reinforcement shall have 1½" of clear cover unless otherwise shown or noted. Clear cover shall be 3" for bottom surfaces formed against earth.

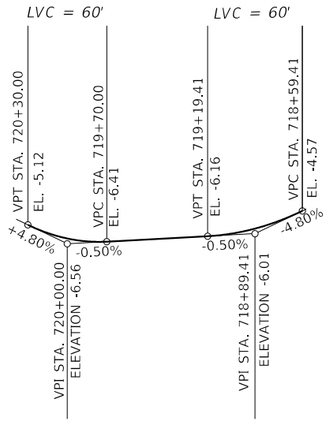
STATION 5025+64.17
BUILT 202_ BY
CITY OF CHICAGO
F.A.U. RT. 1520
SEC. 17-B7203-00-ES
LOADING HL-93
STR. NO. 016-6290

NAME PLATE
(See Std. 515001)

INDEX OF SHEETS



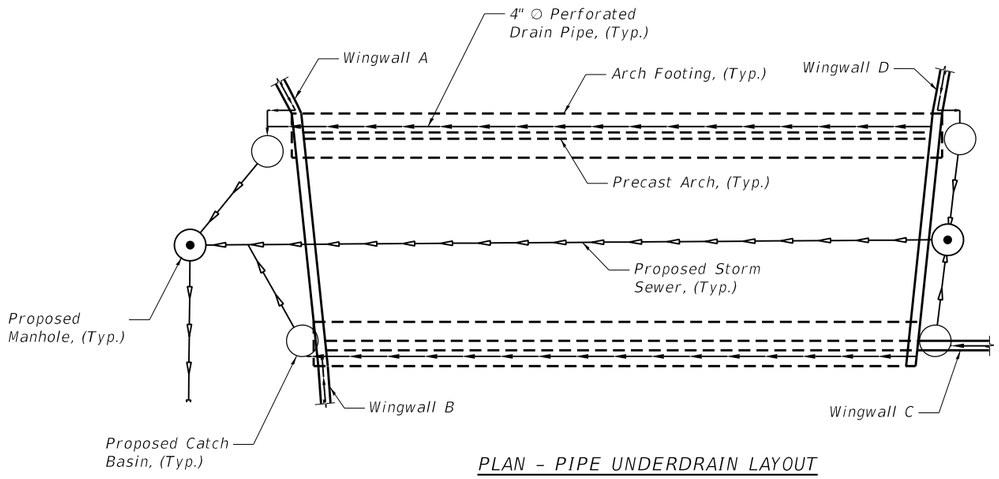
PROPOSED PROFILE GRADE
(Along ℄ Hayes Dr.)



PROPOSED PEDESTRAIN PATH PROFILE GRADE

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	3,916
High Performance Concrete Structures	Cu. Yd.	500.4
Protective Concrete Sealer	Sq. Yd.	360
Stud Shear Connectors	Each	1,082
Reinforcement Bars, Epoxy Coated	Pound	65,850
Furnishing Steel Piles HP14x73	Foot	2,650
Driving Piles	Foot	2,650
Test Pile Steel HP14x73	Each	2
Pile Shoes	Each	107
Name Plate	Each	1
Furnishing Soldier Piles (HP Section)	Foot	612
Furnishing Soldier Piles (W Section)	Foot	673
Driving Soldier Piles	Foot	612
Drilling and Setting Piles (In Soil)	Cu. Ft.	6,184
Untreated Timber Lagging	Sq. Ft.	2,080
Membrane Waterproofing System for Buried Structures	Sq. Yd.	668
Geocomposite Wall Drain	Sq. Yd.	947
Granular Backfill for Structures	Cu. Yd.	801
Three-Sided Precast Concrete Structures 32'x13'	Foot	99
Pipe Underdrains for Structures, 4"	Foot	509
Dewatering Location#4	L. Sum	1



PLAN - PIPE UNDERDRAIN LAYOUT

NOTES:

1. See Sheets SF-10 to SF-13 for pipe underdrain layout along wingwalls.

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DIVISION OF ENGINEERING

GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-6290
SHEET NO. SF-2 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1047
CDOT PROJECT NO.	B-7-203	SN 016-6290		
	ILLINOIS FED. AID PROJECT			

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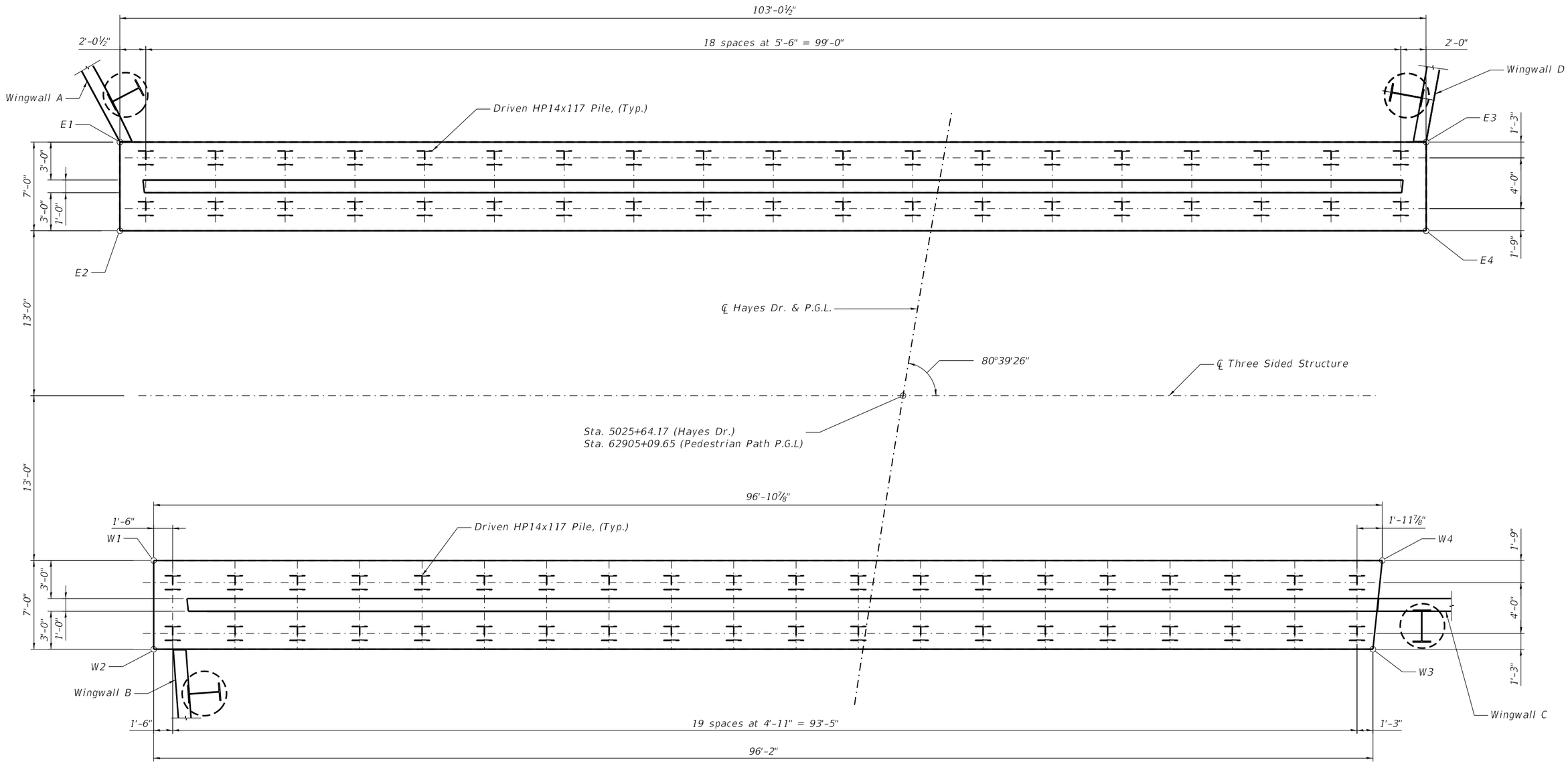

PLAN – FOUNDATION AND PILE LAYOUT

FOUNDATION LAYOUT TABLE

Location	Station	Offset
E1	5025+73.50	64.23' Lt.
E2	5025+66.86	63.07' Lt.
E3	5025+91.21	37.25' Rt.
E4	5025+84.16	38.49' Rt.
W1	5025+42.28	56.36' Lt.
W2	5025+35.79	55.33' Lt.
W3	5025+50.10	39.75' Rt.
W4	5025+57.31	39.39' Rt.

NOTE:

Stations and offsets measured from ℄ Hayes Road.

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FOUNDATION LAYOUT
STRUCTURE NO. 016–6290
SHEET NO. SF-3 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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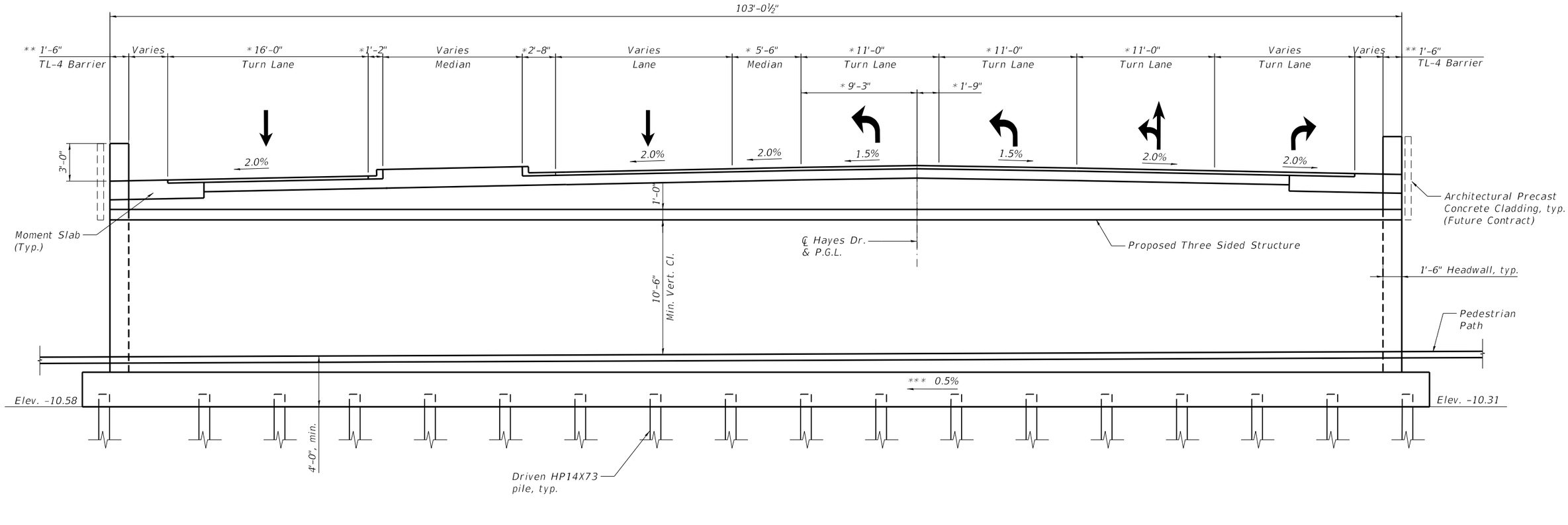

LONGITUDINAL SECTION ALONG EAST WALL OF 3-SIDED STRUCTURE

(Looking East)

* Measured perpendicular to the direction of traffic

** Measured perpendicular to the Headwall

*** See Pedestrian Path Profile Grade on Sheet SF-2.

NOTE:

See maintenance of Traffic and Civil plans for additonal details.

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DIVISION OF ENGINEERING

LONGITUDINAL SECTION
STRUCTURE NO. 016-6290
SHEET NO. SF-4 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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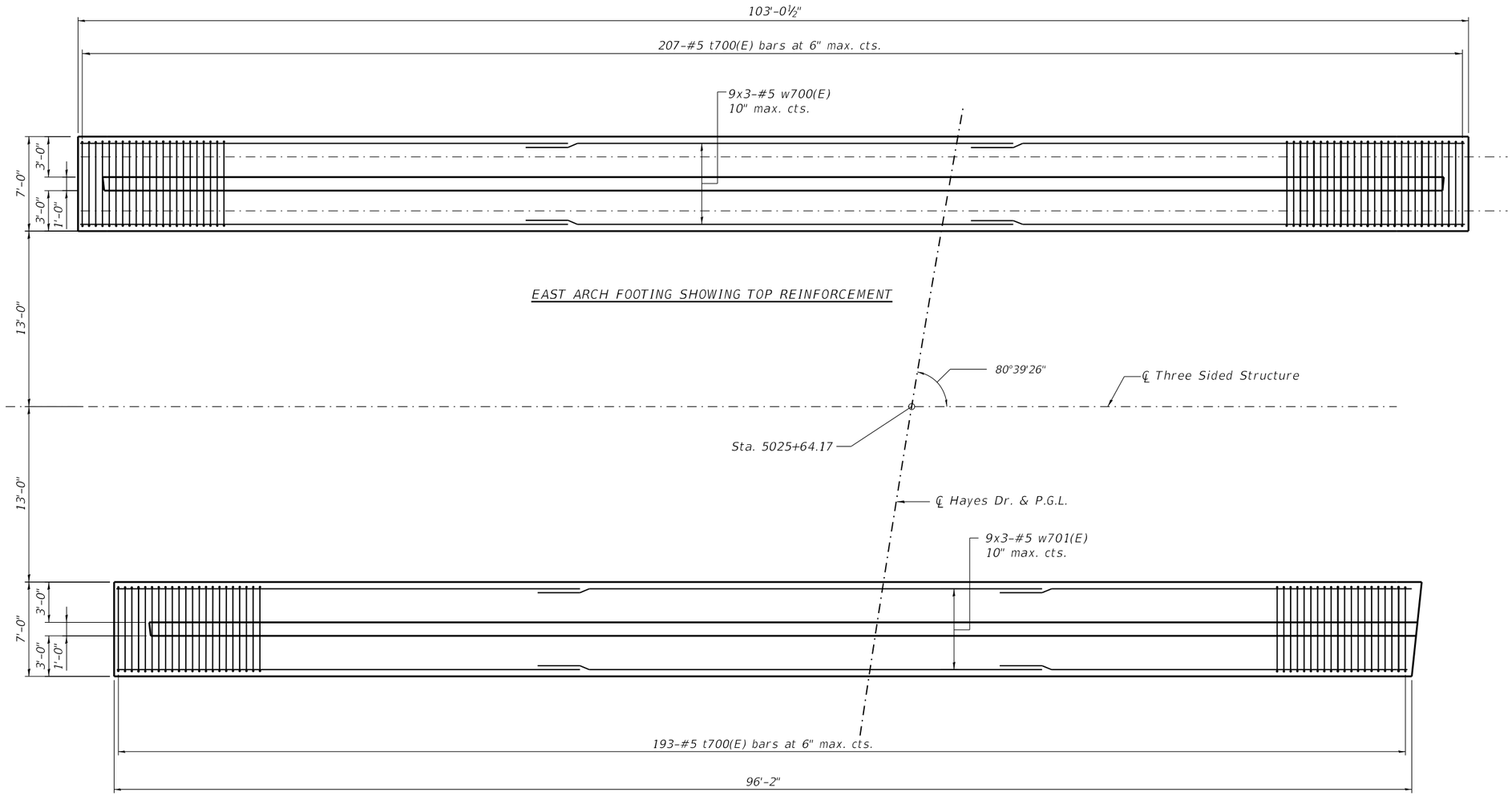

EAST ARCH FOOTING SHOWING TOP REINFORCEMENT

WEST ARCH FOOTING SHOWING TOP REINFORCEMENT

PLAN - ARCH FOOTING TOP REINFORCEMENT

NOTE:

For bottom reinforcement, bill of material and bar details and section through footing, see Sheet SF-6

MINIMUM BAR LAP

#5 - 3'-10"

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ARCH FOOTING DETAILS (1 OF 2)
STRUCTURE NO. 016-6290
SHEET NO. SF-5 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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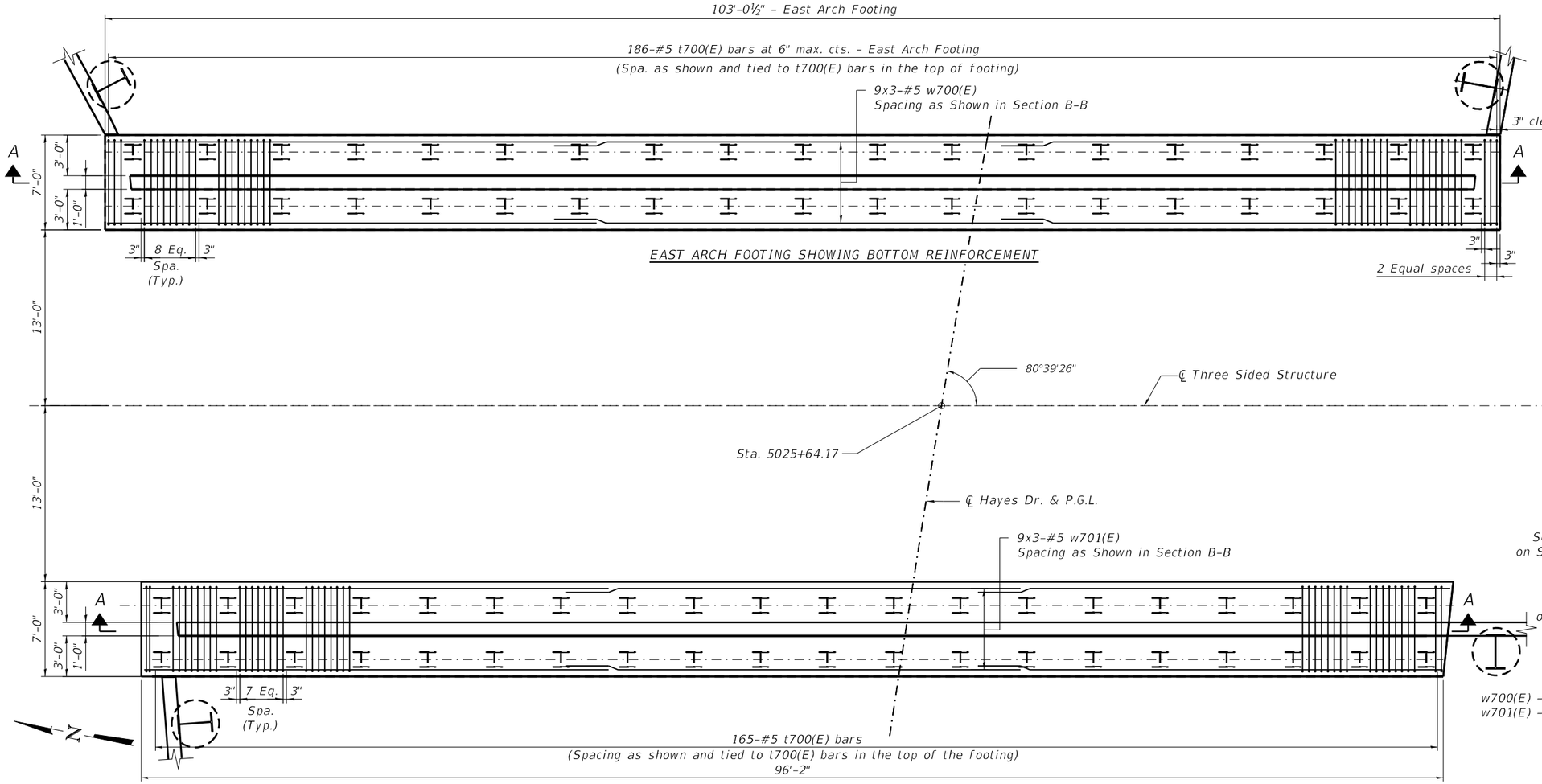

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n700(E)	56	#5	6'-6"	
t700(E)	724	#5	11'-5"	
w700(E)	54	#5	36'-10"	
w701(E)	54	#5	34'-3"	
High Performance Concrete Structures			Cu. Yd.	164.0
Reinforcement Bars, Epoxy Coated			Pound	12,900
Furnishing Steel Piles HP14X73			Foot	2,650
Driving Piles			Foot	2,650
Test Pile Steel HP 14X73			Each	2
Pile Shoes			Each	78

Rebar quantity inlcudes both top and bottom bars. See Sheet SF-5 for top reinforcement.

PILE DATA

Type: HP14x117 w/ Pile Shoes
Nominal Required Bearing:
East Arch Footing: 207 kips
West Arch Footing: 196 kips
Factored Resistance Available:
East Arch Footing: 114 kips
West Arch Footing: 108 kips
Est. Length (Both Footings): 34.0 ft
No. of Production Piles: 78
No. of Test Piles: 2

MINIMUM BAR LAP

#5 - 3'-10"

NOTES:

1. Arch footing to headwall dowels not shown for clarity. See Sheet SF-8 for placement of n700(E) bars. Avoid piles as necessary.
2. For top of Footing bars see Sheet SF-5

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ARCH FOOTING DETAILS (2 OF 2)
STRUCTURE NO. 016-6290
SHEET NO. SF-6 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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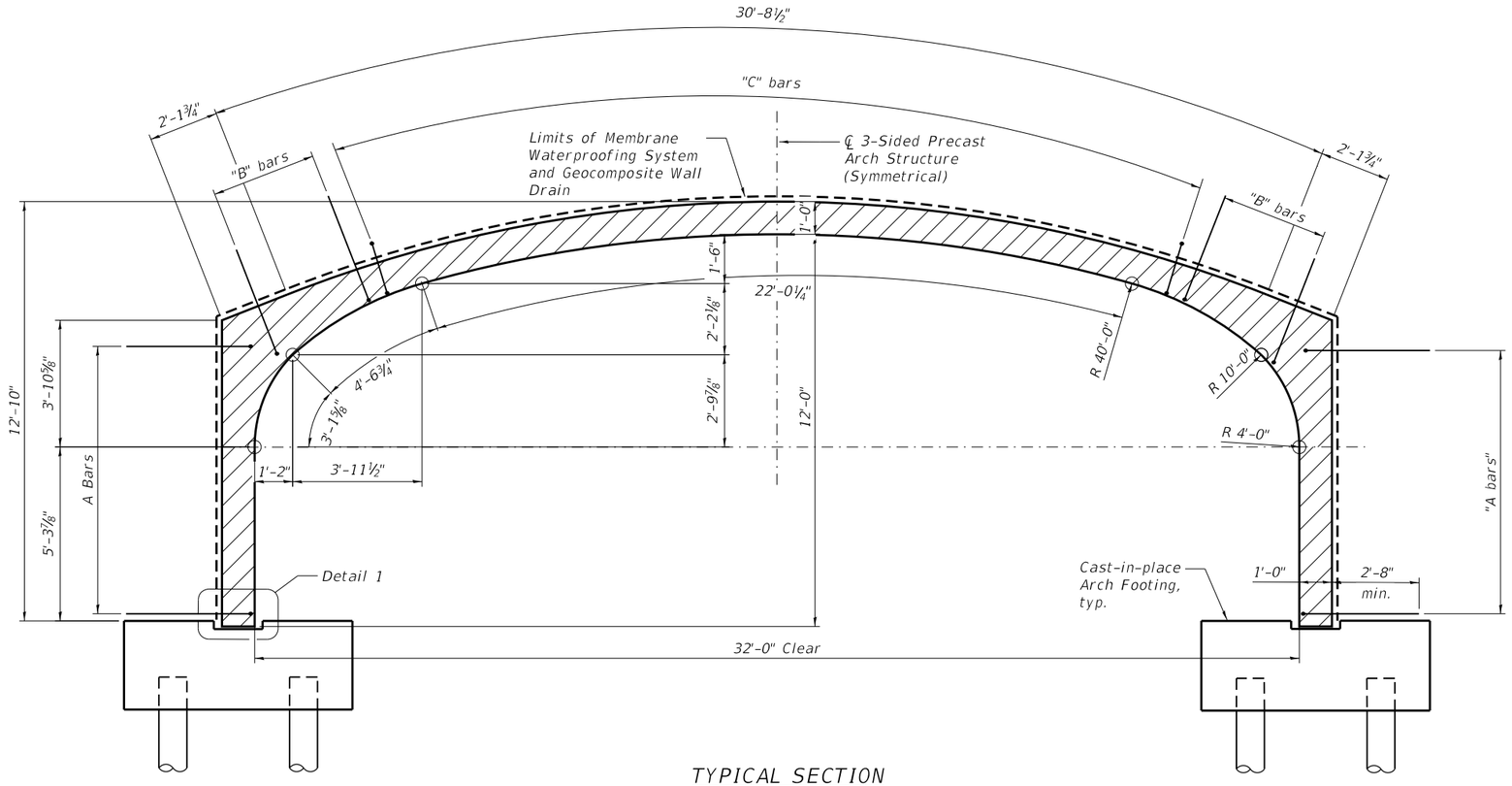
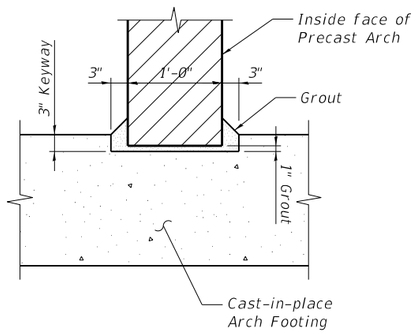
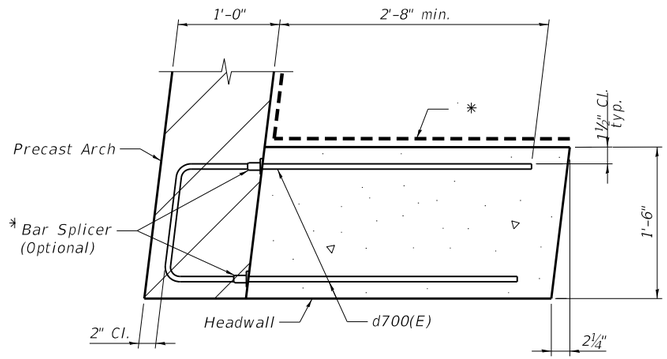


TYPICAL SECTION

(Dowel bars "A", "B", and "C" only required at headwall)



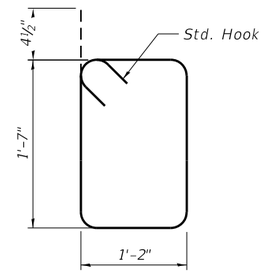
DETAIL 1



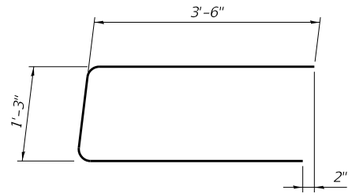
MECHANICAL SPLICE IN PRECAST ARCH DETAIL (OPTIONAL)

* Contractor may provide mechanical splicers as shown at no additional cost.

** Limits of Membrane Waterproofing System and Geocomposite Wall Drain.



BARS d701(E)



BARS d700(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d700(E)	96	#4	8'-4"	
d701(E)	98	#4	6'-3"	
* Reinforcement Bars, Epoxy Coated			Pound	1,520
Membrane Waterproofing System for Buried Structures			Sq. Yd.	602
Geocomposite Wall Drain			Sq. Yd.	602
Three-Sided Precast Concrete Structures 32'x13'			Foot	99

* For Information Only. Cost included with Three-Sided Precast Concrete Structures.

"A" bars = 17-#5 d700(E) bars at 6" cts.
"B" bars = 7-#5 d700(E) bars at 6" cts.
"C" bars = 49-#5 d701(E) bars at 6" cts.

NOTES:

1. The Contractor shall submit a complete design of the Precast Arch Structure and all construction documents to the Engineer for review and approval prior to starting construction. All documents shall be prepared and sealed by an Illinois Licensed Structural Engineer.
2. The three-sided concrete structure shall be designed, manufactured, installed and load rated per the requirements of the Special Provision for "Three Sided Precast Concrete Structure", and shall include the effects of unyielding foundation conditions for the sequence of construction anticipated.
3. Joint waterproofing, Membrane Waterproofing System and Geocomposite Wall Drain shall be applied to the outer surfaces of the arch and headwall below the proposed roadway prior to backfilling per the applicable portions of Sections 503, 504, 540.06 and 591 of the Standard Specifications and per the Special Provisions for "Membrane Waterproofing System for Buried Structures" and "Three Sided Precast Concrete Structure". Waterproofing must also meet the minimum requirements of the three-sided structure manufacturer. Joint spacing between precast arches shall be per the manufacturer's recommendations and shall be ¼" minimum.
4. Work this drawing with Sheet SF-8, Headwall Details, for placing of reinforcing bars shown.
5. Architectural Precast Concrete Cladding along with painting of the underside of arch and other architectural elements on the underside of arch to be installed in a future contract.
6. See Electrical Lighting Plans for Precast Arch Lighting Details.

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ARCH DETAILS
STRUCTURE NO. 016-6290
SHEET NO. SF-7 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO. B-7-203		SN 016-6290		
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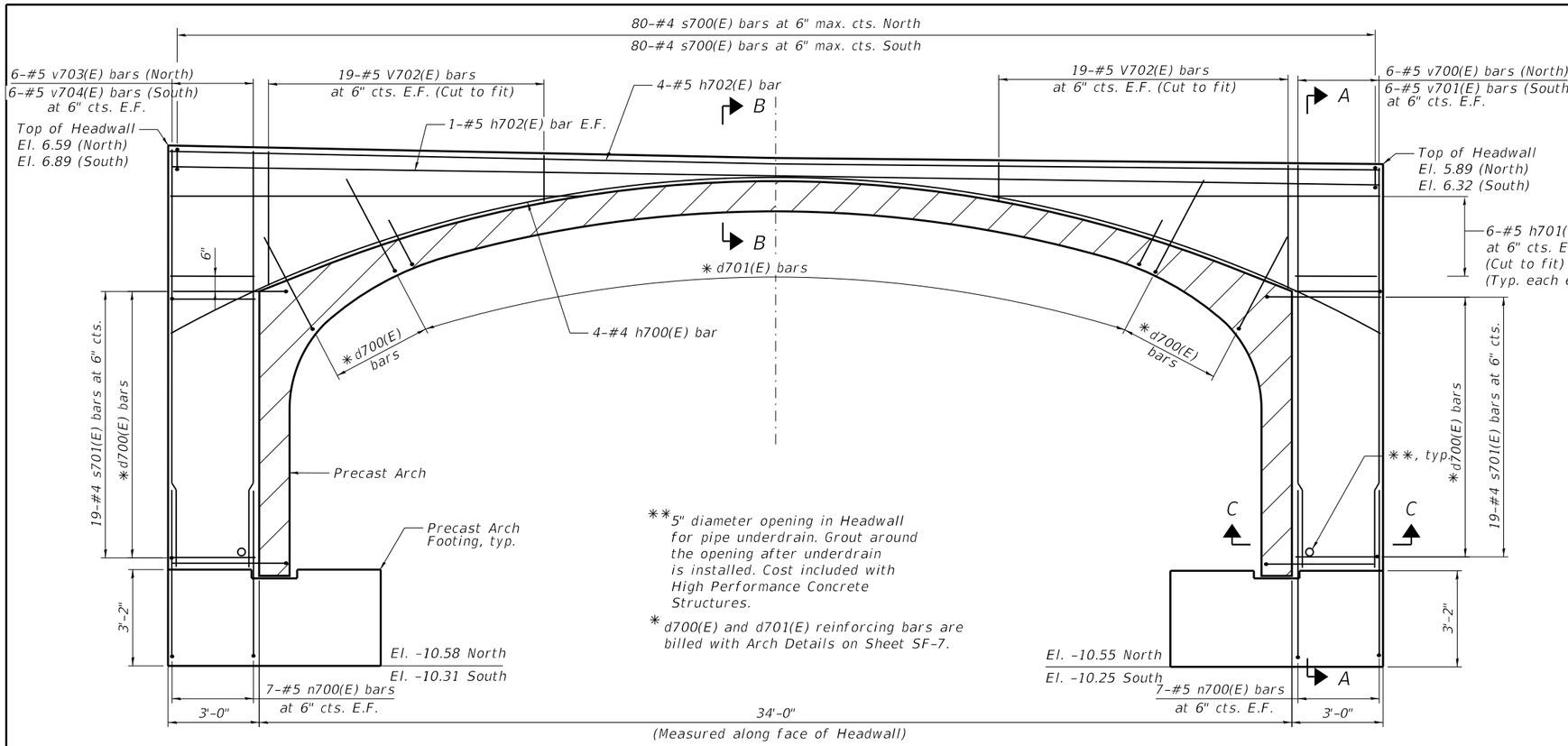
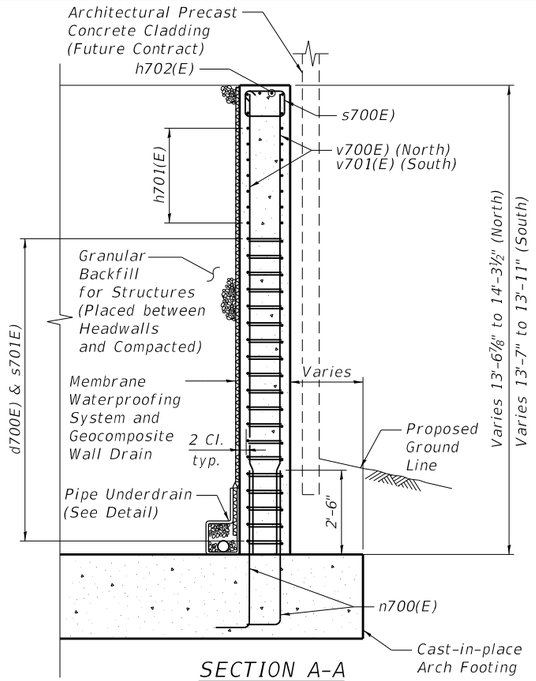


** 5" diameter opening in Headwall for pipe underdrain. Grout around the opening after underdrain is installed. Cost included with High Performance Concrete Structures.

* d700(E) and d701(E) reinforcing bars are billed with Arch Details on Sheet SF-7.

ELEVATION - HEADWALL

(Moment Slab and Arch Footing Piles not shown for clarity)

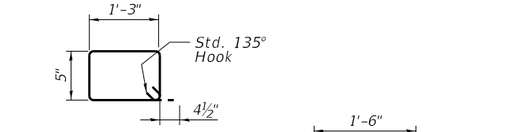


SECTION A-A

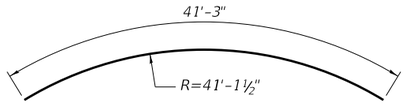
(Moment Slab and Arch Footing Piles not shown for clarity)

BILL OF MATERIAL

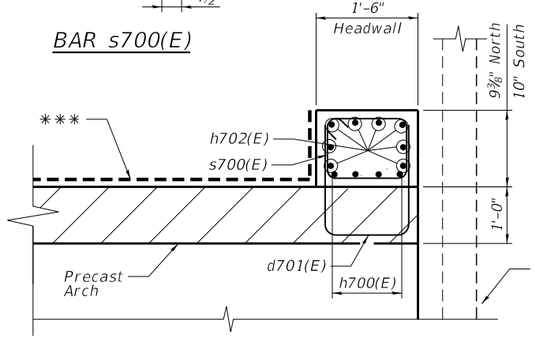
Bar	No.	Size	Length	Shape
h700(E)	8	#4	41'-4"	
h701(E)	48	#4	13'-1"	
h702(E)	10	#4	39'-5"	
s700(E)	160	#4	3'-8"	
s701(E)	64	#4	6'-9"	
v700(E)	6	#4	13'-0"	
v701(E)	6	#4	13'-5"	
V702(E)	76	#4	4'-0"	
v703(E)	6	#4	13'-8"	
v704(E)	6	#4	13'-7"	
High Perfomance Concrete Structures		Cu. Yd.	16.8	
Reinforcement Bars, Epoxy Coated		Pound	2,000	
Membrane Waterproofing System for Buried Structures		Sq. Yd.	66	
Geocomposite Wall Drain		Sq. Yd.	66	
Granular Backfill for Structures		Cu. Yd.	428	
Pipe Underdrains for Structures, 4"		Foot	200	



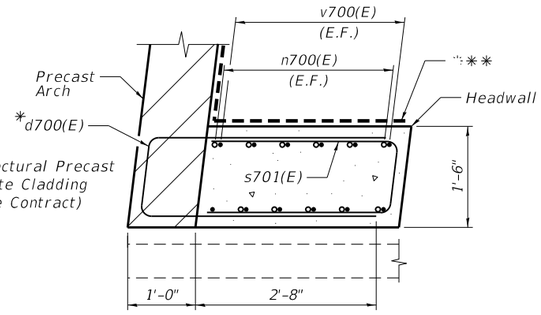
BAR s700(E)



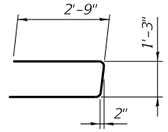
BAR h700(E)



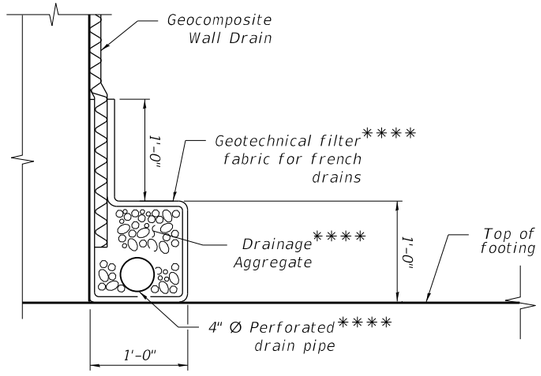
SECTION B-B



SECTION C-C



s701(E)



PIPE UNDERDRAIN DETAIL

**** Included in the cost of Pipe Underdrains for Structures, 4"

*** Limits of Membrane Waterproofing System and Geocomposite Wall Drain

NOTES:

1. Work this sheet with Sheet SF-7 for arch details and billing of bars d700(E) and d701(E). See Sheet SF-6 for billing of n700(E) bars.
2. E.F. denotes Each Face.

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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

HEADWALL DETAILS
STRUCTURE NO. 016-6290

SHEET NO. SF-8 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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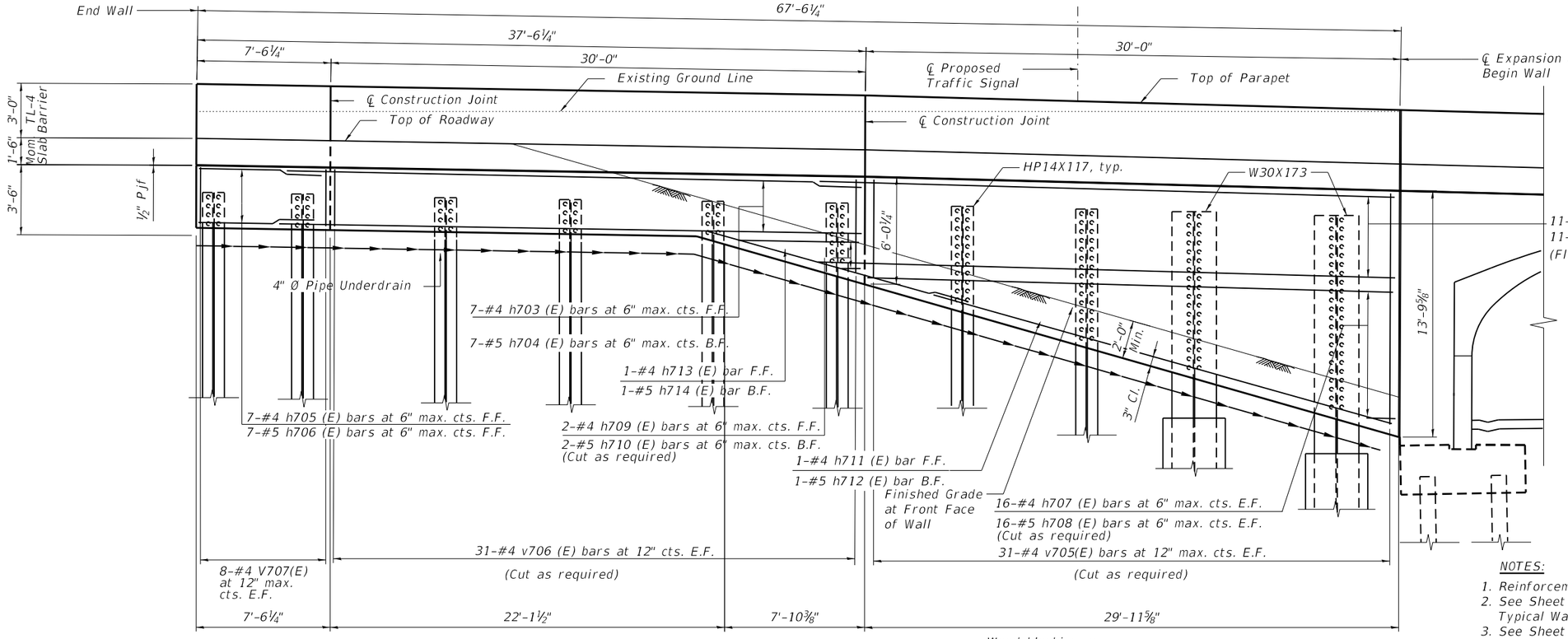
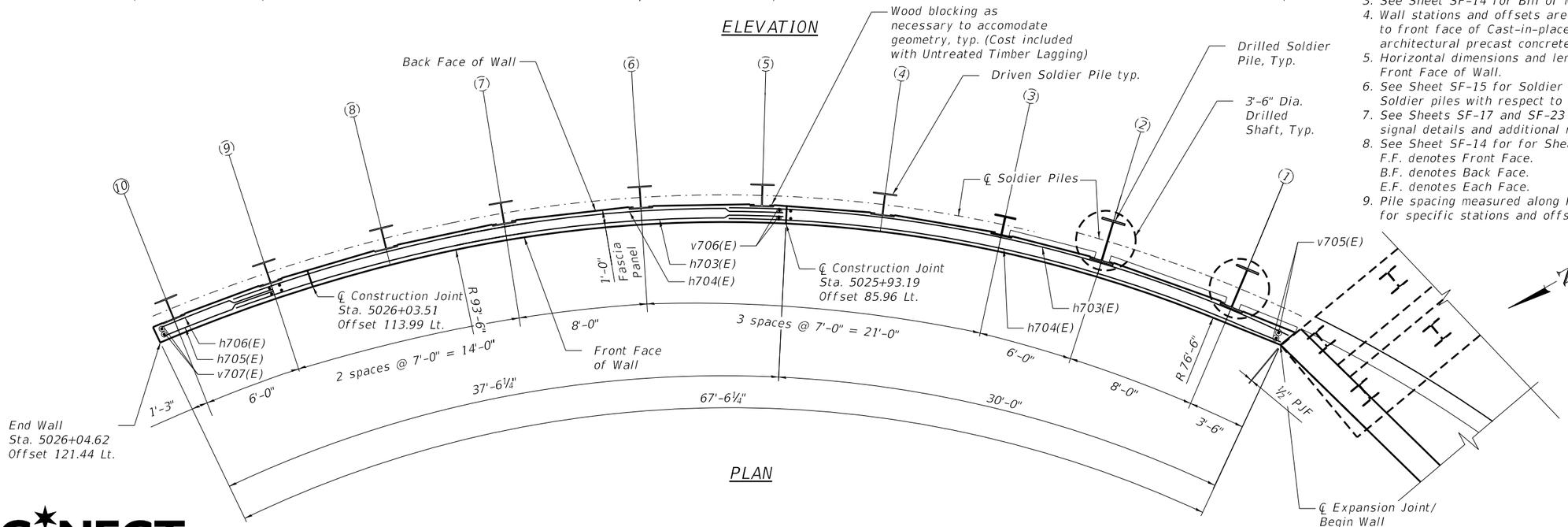


ELEVATION



PLAN

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheet SF-15 for Wall Elevation Table and SF-17 for Typical Wall Cross Sections.
3. See Sheet SF-14 for Bill of Material.
4. Wall stations and offsets are measured from ℄ Hayes Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
5. Horizontal dimensions and lengths are measured along Front Face of Wall.
6. See Sheet SF-15 for Soldier Pile Data Table and layout of Soldier piles with respect to Front Face of Wall.
7. See Sheets SF-17 and SF-23 for conduit details, traffic signal details and additional notes.
8. See Sheet SF-14 for for Shear Stud detail.
   F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
9. Pile spacing measured along Front Face of Wall. See SF-15 for specific stations and offsets.

MINIMUM BAR LAP

#4 - 2'-8"
#5 - 3'-10"

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	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

PLAN AND ELEVATION – WALL A
STRUCTURE NO. 016–6290
SHEET NO. SF-9 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1054
CDOT PROJECT NO. B-7-203		SN 016-6290		
ILLINOIS FED. AID PROJECT				

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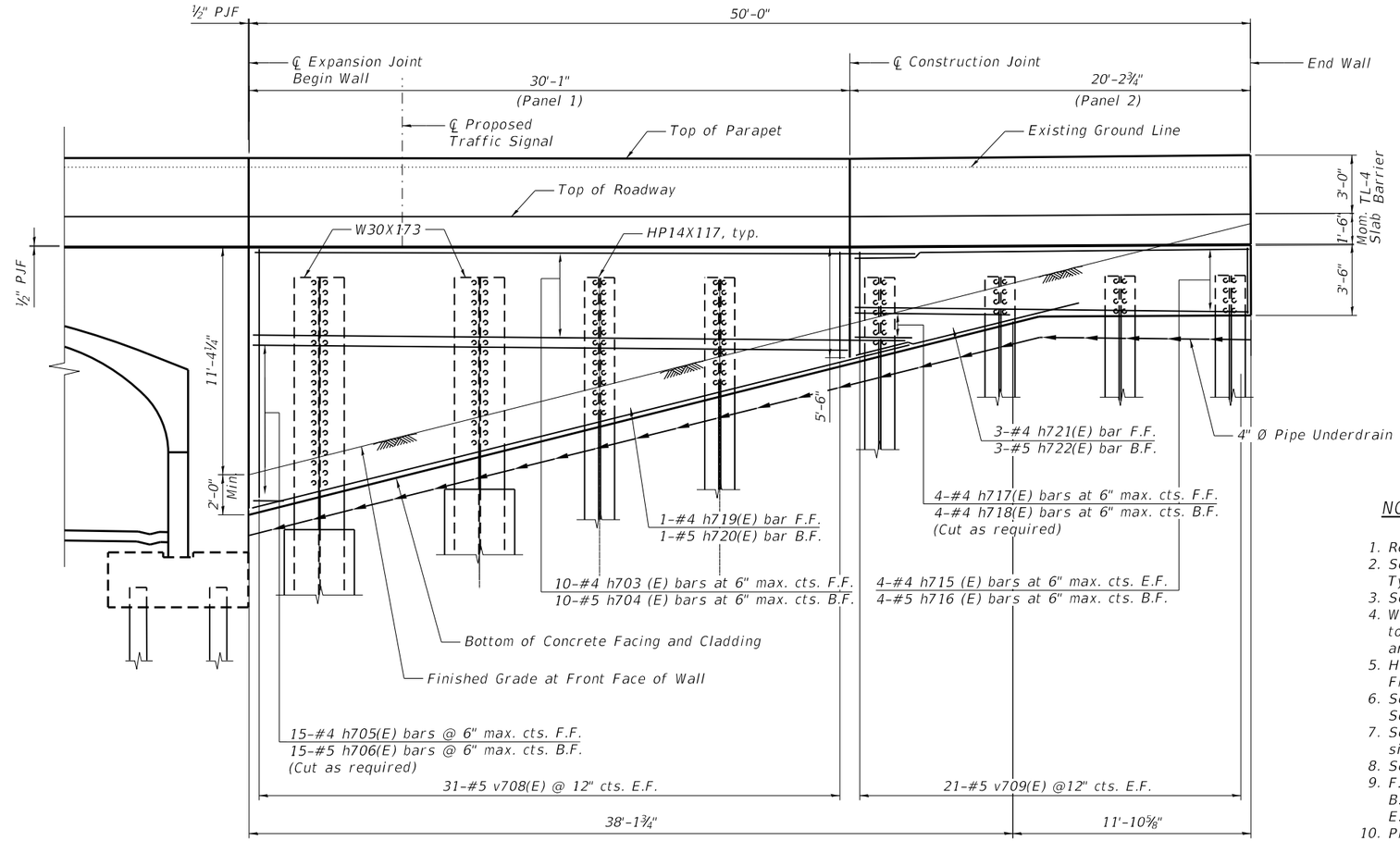
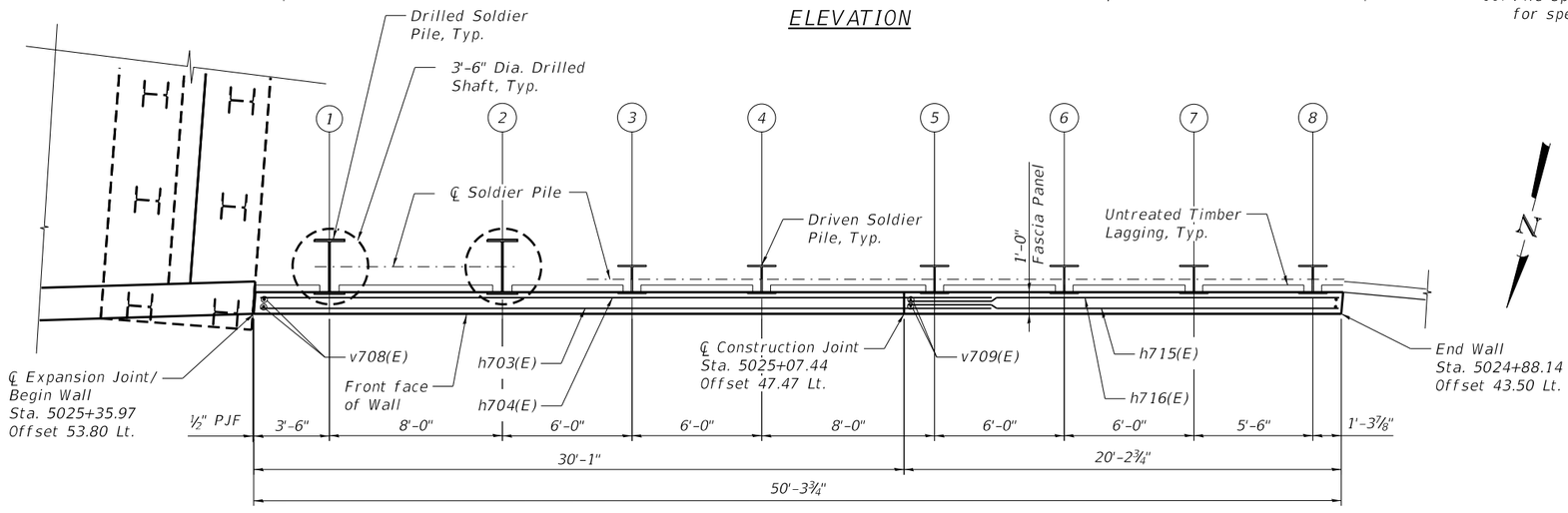


ELEVATION



PLAN

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheet SF-15 for Wall Elevation Table and SF-17 for Typical Wall Cross Sections.
3. See Sheet SF-14 for Bill of Material.
4. Wall stations and offsets are measured from ℄ Hayes Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
5. Horizontal dimensions and lengths are measured along Front Face of Wall.
6. See Sheet SF-15 for Soldier Pile Data Table and layout of Soldier piles with respect to Front Face of Wall.
7. See Sheets SF-17 and SF-23 for conduit details, traffic signal details and additional notes.
8. See Sheet SF-14 for for Shear Stud detail.
9. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
10. Pile spacing measured along Front Face of Wall. See SF-15 for specific stations and offsets.

MINIMUM BAR LAP

#4 - 2'-8"
#5 - 3'-10"

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FILE NAME = ABC-sht-6290-plan-002.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
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PLAN AND ELEVATION – WALL B
STRUCTURE NO. 016-6290
SHEET NO. SF-10 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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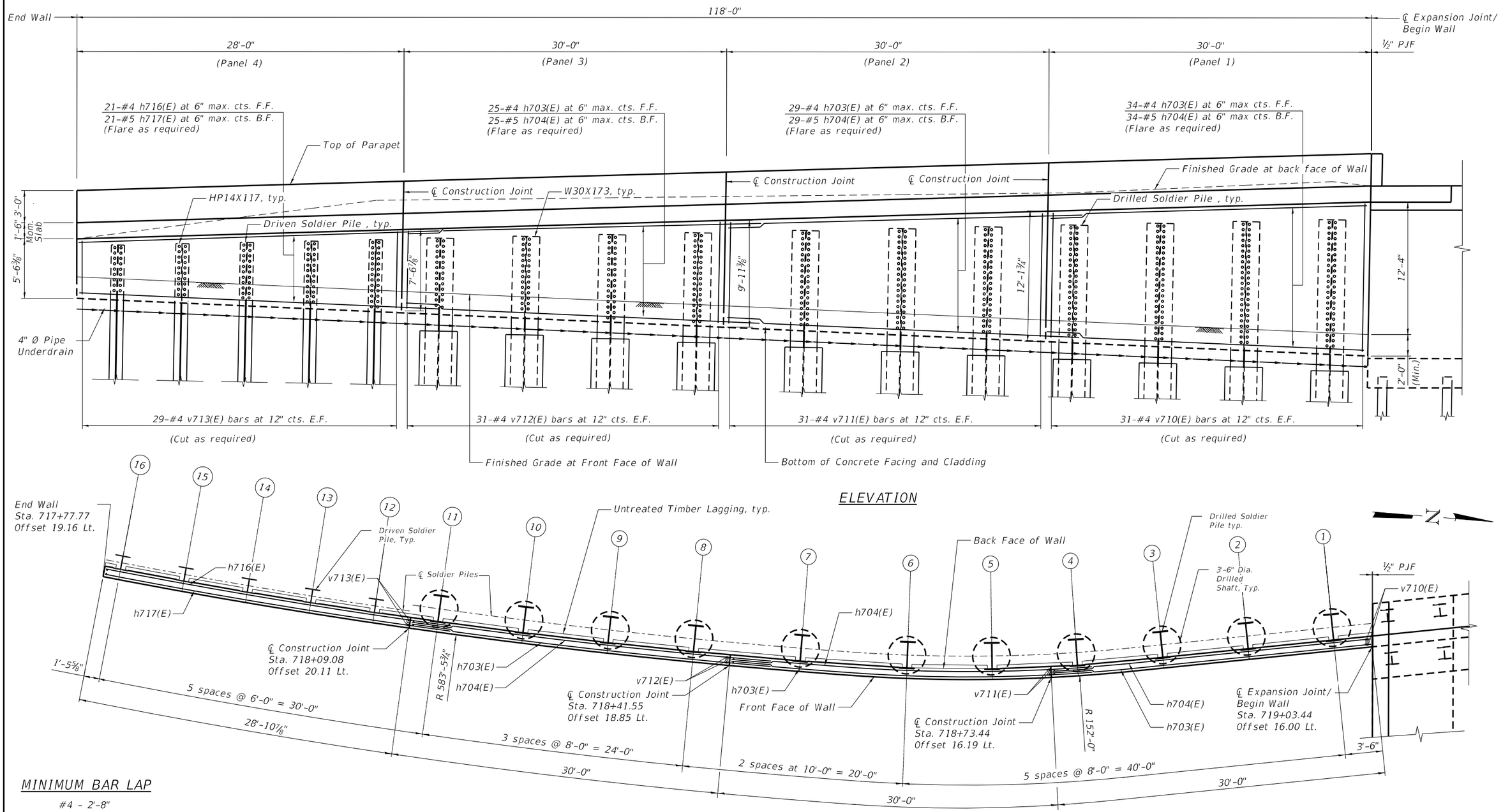
CDOT PROJECT NO.	B-7-203	SN 016-6290		
	ILLINOIS FED. AID PROJECT			



ELEVATION

MINIMUM BAR LAP

#4 - 2'-8"
#5 - 3'-10"

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheet SF-16 for Wall Elevation Table and SF-17 for Typical Wall Cross Sections.
3. See Sheet SF-14 for Bill of Material. Wall stations and offsets are measured from ℄ Underpass to front face of Cast-in-place Wall (not including architectural precast concrete cladding).

PLAN

4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SF-15 for Soldier Pile Data Table and layout of Soldier piles with respect to Front Face of Wall.
6. See Sheets SF-17 and SF-23 for conduit details, traffic signal details and additional notes.
7. See Sheet SF-14 for for Shear Stud detail.
8. F.F. denotes Front Face. B.F. denotes Back Face. E.F. denotes Each Face.
9. Pile spacing measured along Front Face of Wall. See SF-15 for specific stations and offsets.

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DEPARTMENT OF TRANSPORATION
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PLAN AND ELEVATION – WALL C
STRUCTURE NO. 016–6290
SHEET NO. SF-11 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1056
CDOT PROJECT NO. B-7-203		SN 016-6290		
ILLINOIS FED. AID PROJECT				

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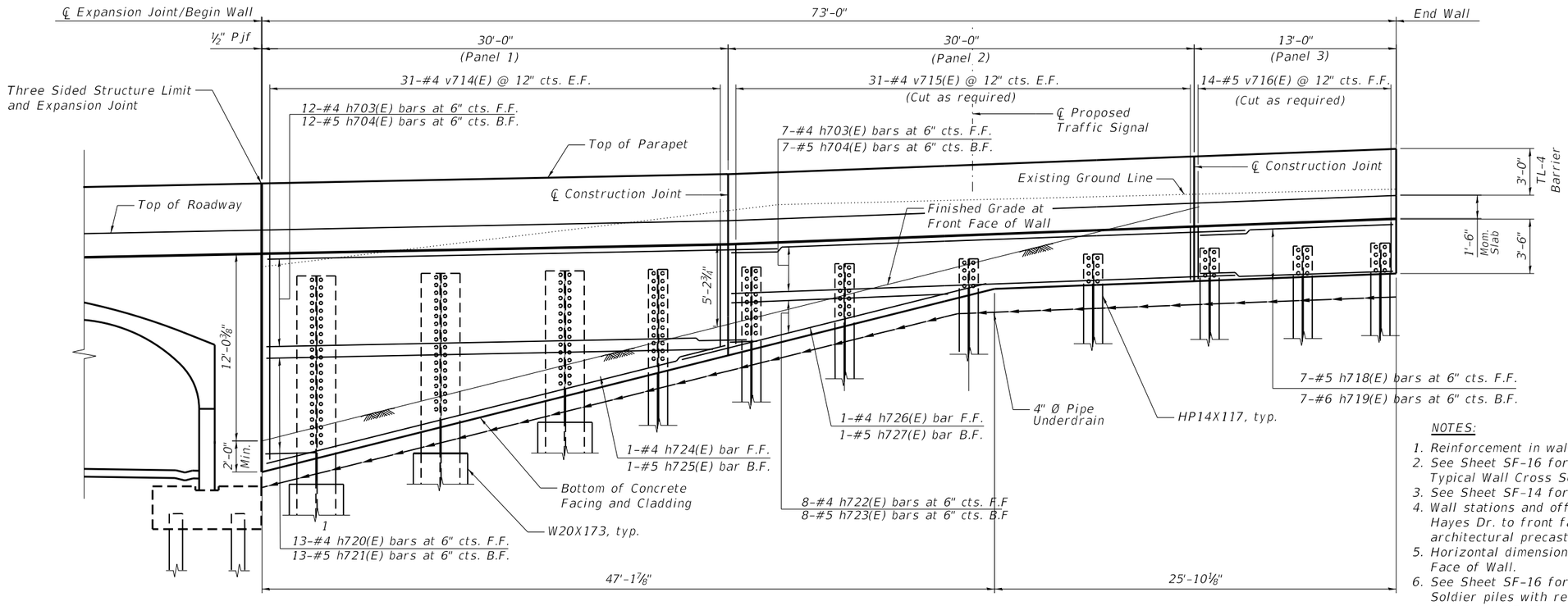
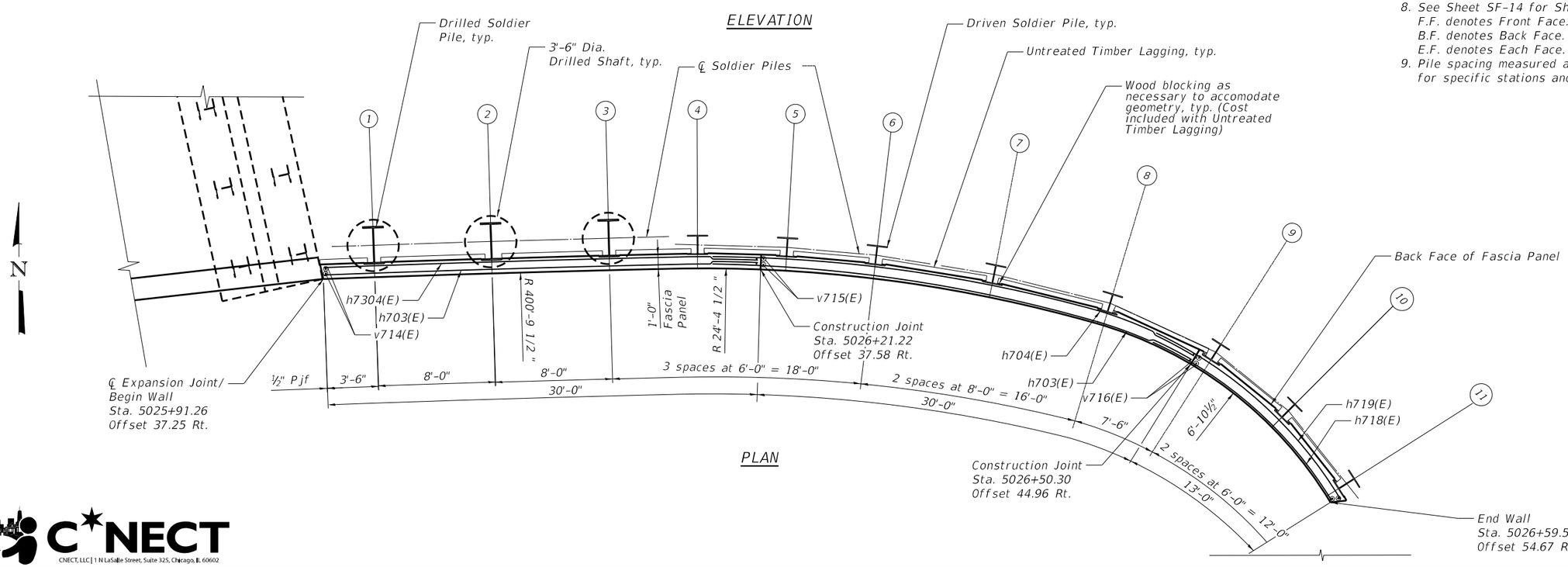


NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheet SF-16 for Wall Elevation Table and SF-17 for Typical Wall Cross Sections.
3. See Sheet SF-14 for Bill of Material.
4. Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
5. Horizontal dimensions and lengths are measured along Front Face of Wall.
6. See Sheet SF-16 for Soldier Pile Data Table and layout of Soldier piles with respect to the Front Face of Wall.
7. See Sheet SF-17 and SF-23 for conduit details, traffic signal deatils and additional notes.
8. See Sheet SF-14 for Shear Stud detail.
   F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
9. Pile spacing measured along Front Face of Wall. See SF-16 for specific stations and offsets.



MINIMUM BAR LAP

#4 - 2'-8"
#5 - 3'-10"

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	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

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DEPARTMENT OF TRANSPORATION
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PLAN AND ELEVATION – WALL D
STRUCTURE NO. 016-6290
SHEET NO. SF-12 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1057
CDOT PROJECT NO.	B-7-203	SN 016-6290		
ILLINOIS FED. AID PROJECT				

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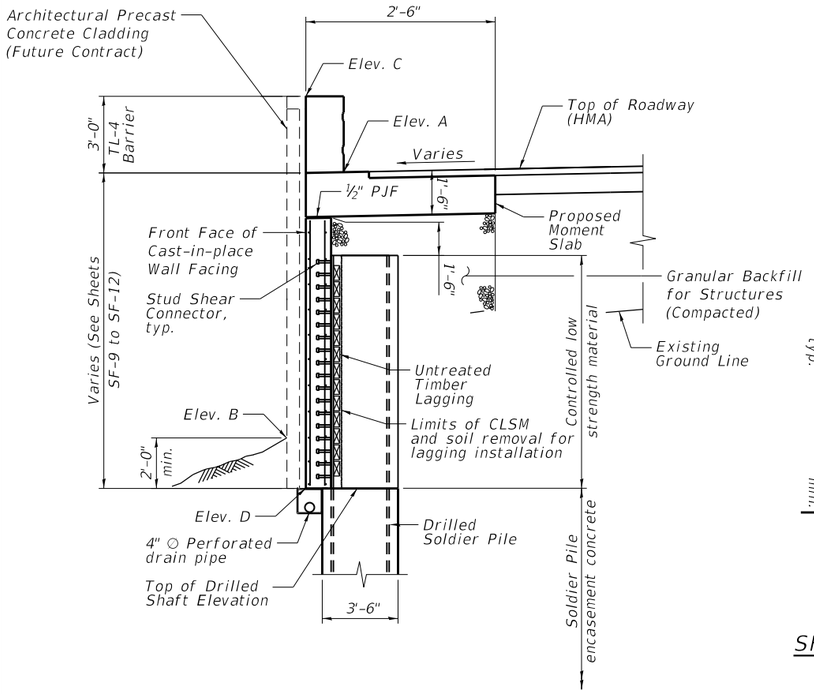
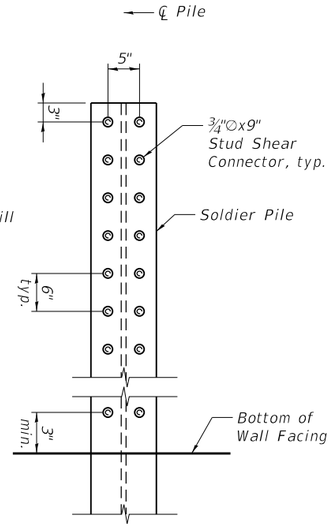


TYPICAL RETAINING WALL SECTION AT DRILLED SOLDIER PILE



SHEAR STUD DETAIL

BILL OF MATERIAL - WALL A

Bar	No.	Size	Length	Shape
h703(E)	18	#4	32'-7"	——
h704(E)	18	#5	34'-2"	——
h705(E)	7	#4	7'-3"	——
h706(E)	7	#5	7'-4"	——
h707(E)	16	#4	29'-9"	——
h708(E)	16	#5	31'-4"	——
h709(E)	2	#4	29'-10"	——
h710(E)	2	#5	29'-10"	——
h711(E)	1	#4	33'-8"	——
h712(E)	1	#5	33'-8"	——
h713(E)	1	#4	8'-7"	——
h714(E)	1	#5	8'-7"	——
v705(E)	62	#4	13'-1"	——
v706(E)	30	#4	5'-4"	——
v707(E)	46	#4	3'-1"	——
High Performance Concrete Structures		Cu. Yd.	16.4	
Stud Shear Connectors		Each	186	
Reinforcement Bars, Epoxy Coated		Pound	2,880	
Pile Shoes		Each	9	
Furnishing Soldier Piles (HP Section)		Foot	163	
Furnishing Soldier Piles (W Section)		Foot	72	
Driving Soldier Piles		Foot	163	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	668	
Untreated Timber Lagging		Sq. Ft.	340	
Geocomposite Wall Drain		Sq. Yd.	49	
Granular Backfill for Structures		Cu. Yd.	66	
Pipe Underdrains for Structures, 4"		Foot	68	

BILL OF MATERIAL - WALL B

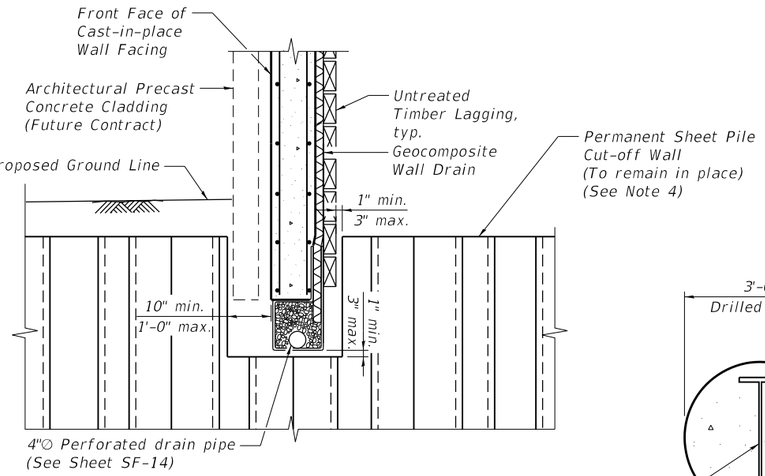
Bar	No.	Size	Length	Shape
h703(E)	10	#4	32'-7"	——
h704(E)	10	#5	34'-2"	——
h705(E)	15	#4	7'-3"	——
h706(E)	15	#5	7'-4"	——
h715(E)	4	#4	19'-9"	——
h716(E)	4	#5	19'-9"	——
h717(E)	4	#4	7'-11"	——
h718(E)	4	#5	7'-11"	——
h719(E)	4	#4	41'-9"	——
h720(E)	1	#5	42'-11"	——
h721(E)	1	#4	8'-3"	——
h722(E)	1	#5	8'-3"	——
v708(E)	62	#4	12'-10"	——
v709(E)	42	#4	5'-0"	——
High Performance Concrete Structures		Cu. Yd.	13.7	
Stud Shear Connectors		Each	164	
Reinforcement Bars, Epoxy Coated		Pound	1,710	
Pile Shoes		Each	7	
Furnishing Soldier Piles (HP Section)		Foot	137	
Furnishing Soldier Piles (W Section)		Foot	74	
Driving Soldier Piles		Foot	137	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	632	
Untreated Timber Lagging		Sq. Ft.	294	
Geocomposite Wall Drain		Sq. Yd.	41	
Granular Backfill for Structures		Cu. Yd.	55	
Pipe Underdrains for Structures, 4"		Foot	50	

BILL OF MATERIAL - WALL C

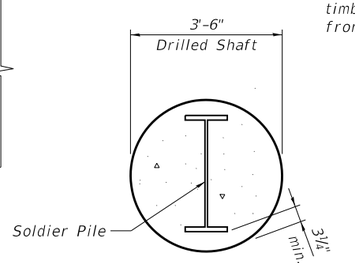
Bar	No.	Size	Length	Shape
h703(E)	88	#4	32'-7"	——
h704(E)	88	#5	34'-2"	——
h716(E)	21	#4	27'-9"	——
h717(E)	21	#5	27'-9"	——
v710(E)	62	#4	13'-7"	——
v711(E)	62	#4	12'-2"	——
v712(E)	62	#4	10'-8"	——
V713(E)	58	#4	7'-3"	——
High Performance Concrete Structures		Cu. Yd.	44.3	
Stud Shear Connectors		Each	526	
Reinforcement Bars, Epoxy Coated		Pound	7,840	
Pile Shoes		Each	5	
Furnishing Soldier Piles (HP Section)		Foot	138	
Furnishing Soldier Piles (W Section)		Foot	411	
Driving Soldier Piles		Foot	138	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	3,809	
Untreated Timber Lagging		Sq. Ft.	1,056	
Geocomposite Wall Drain		Sq. Yd.	133	
Granular Backfill for Structures		Cu. Yd.	178	
Pipe Underdrains for Structures, 4"		Foot	118	

BILL OF MATERIAL - WALL D

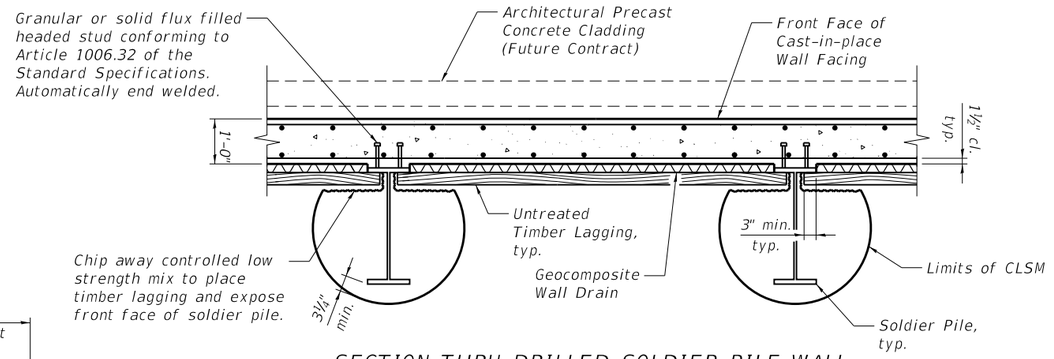
Bar	No.	Size	Length	Shape
h703(E)	19	#4	32'-7"	——
h704(E)	19	#5	34'-2"	——
h718(E)	7	#4	12'-9"	——
h719(E)	7	#5	12'-9"	——
h720(E)	13	#4	32'-5"	——
h721(E)	13	#5	33'-10"	——
h722(E)	8	#4	14'-6"	——
h723(E)	8	#5	14'-6"	——
h724(E)	1	#4	33'-5"	——
h725(E)	1	#5	33'-5"	——
h726(E)	1	#4	14'-11"	——
h727(E)	1	#5	14'-11"	——
v714(E)	62	#5	13'-1"	——
v715(E)	62	#5	6'-3"	——
v716(E)	28	#5	3'-1"	——
High Performance Concrete Structures		Cu. Yd.	18.5	
Stud Shear Connectors		Each	206	
Reinforcement Bars, Epoxy Coated		Pound	3,610	
Pile Shoes		Each	8	
Furnishing Soldier Piles (HP Section)		Foot	174	
Furnishing Soldier Piles (W Section)		Foot	116	
Driving Soldier Piles		Foot	174	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	1,075	
Untreated Timber Lagging		Sq. Ft.	390	
Geocomposite Wall Drain		Sq. Yd.	56	
Granular Backfill for Structures		Cu. Yd.	74	
Pipe Underdrains for Structures, 4"		Foot	73	



SECTION AT INTERSECTION OF WINGWALLS A, B AND D WITH SHEET PILE CUT-OFF WALL



SOLDIER PILE ENCASEMENT



SECTION THRU DRILLED SOLDIER PILE WALL

NOTES:

1. Temporary casing may be required for Granular and Intermediate soils and shall conform to Article 516.06 of the StandardSpecifications.
2. For Wall A details, see Sheet SF-9
   For Wall B details, see Sheet SF-10
   For Wall C details, see Sheet SF-11
   For Wall D details, see Sheet SF-12.
3. For Elevations A through D, see Wall Elevation Table on Sheet SF-15 and SF-16.
4. See Sheet SJ-1 and SJ-3 for additional cut-off wall details.

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	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOLDIER PILE WALL DETAILS AND BILL OF MATERIAL
STRUCTURE NO. 016-6290
SHEET NO. SF-13 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1058
CDOT PROJECT NO.	B-7-203	SN 016-6290		
	ILLINOIS FED. AID PROJECT			

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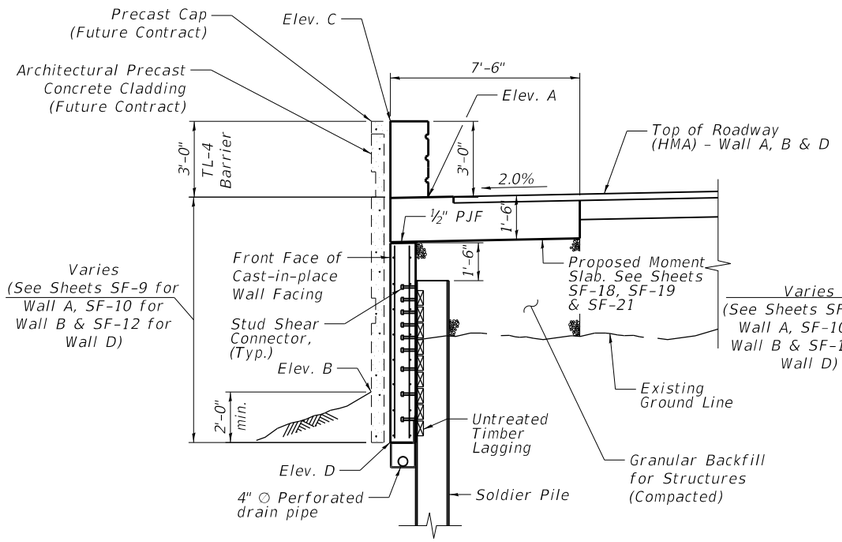
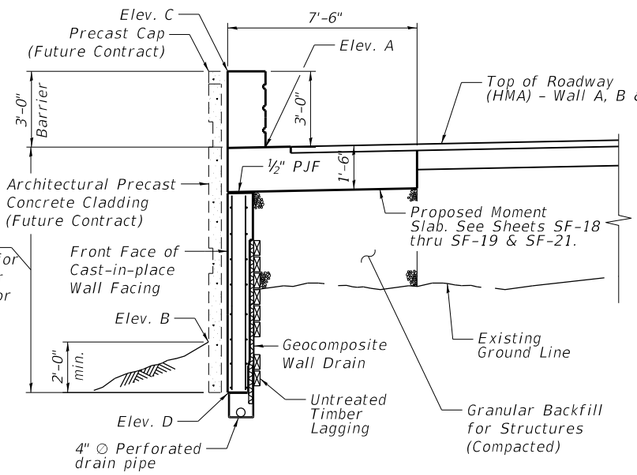
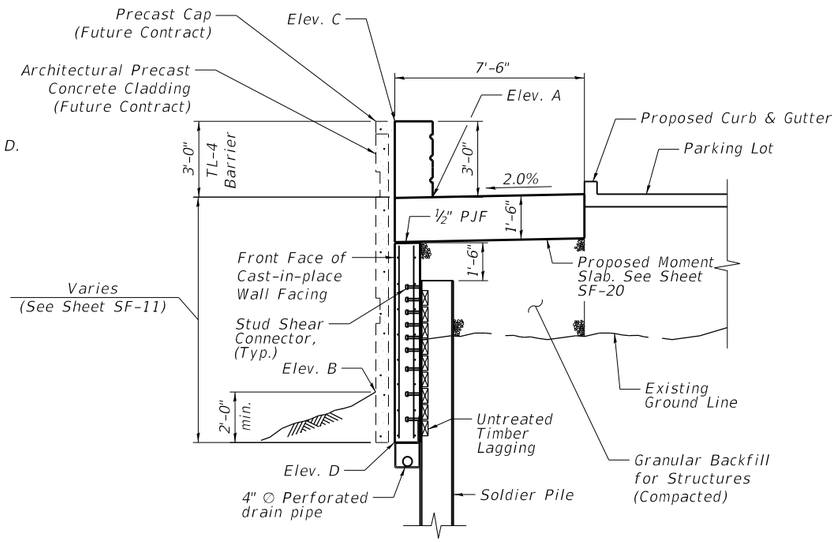


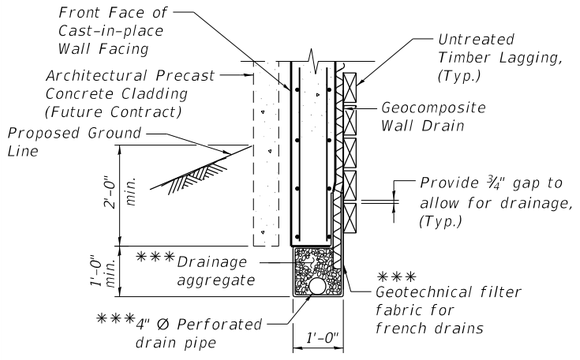
TYPICAL RETAINING WALL SECTION AT DRIVEN SOLDIER PILE - WALLS A, B AND D



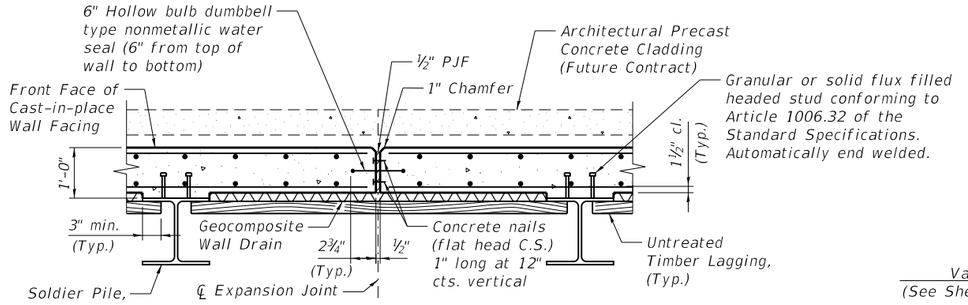
TYPICAL RETAINING WALL CROSS SECTION BETWEEN SOLDIER PILES - WALLS A, B AND D



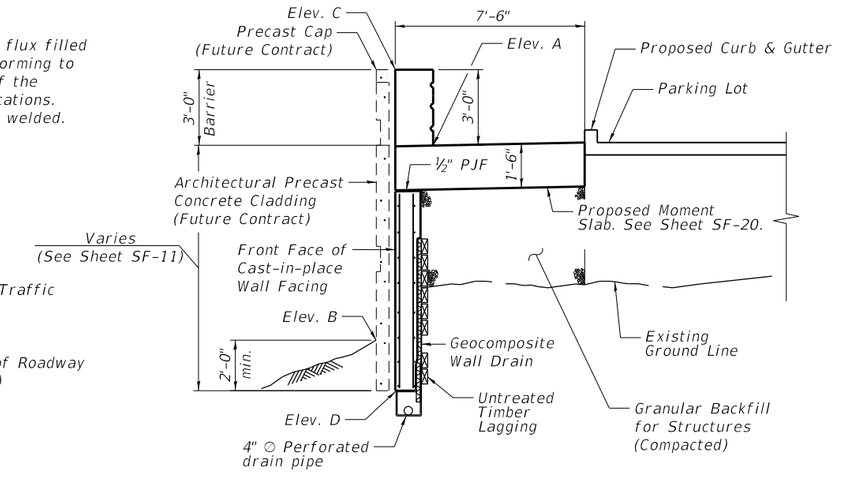
TYPICAL RETAINING WALL SECTION AT DRIVEN SOLDIER PILE - WALL C



UNDERDRAIN DETAIL BETWEEN SOLDIER PILES

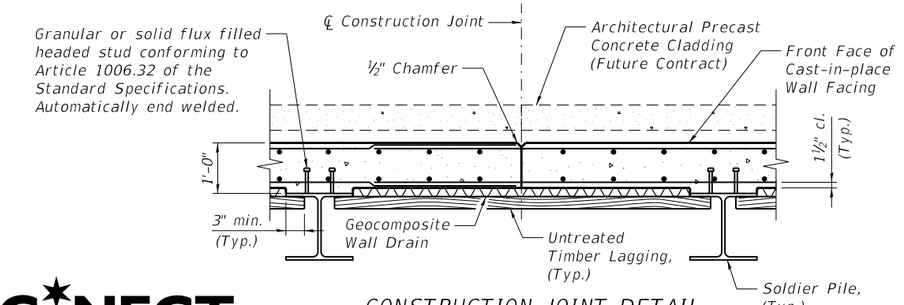


EXPANSION JOINT DETAIL

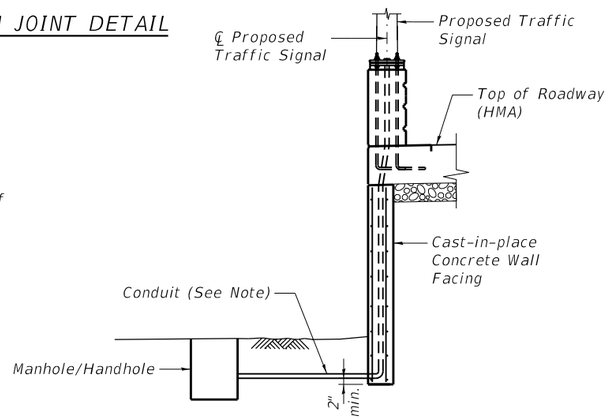


TYPICAL RETAINING WALL CROSS SECTION BETWEEN SOLDIER PILES - WALL C

***Included in the cost of Pipe Underdrains for Structures, 4" (See Special Provisions).



CONSTRUCTION JOINT DETAIL



RETAINING WALL CONDUIT INSTALLATION DETAIL

NOTE

See Sheet SF-23, Traffic Signals plans and Electrical plans for additional traffic signal and lighting details.

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	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

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SOLDIER PILE WALL DETAILS
STRUCTURE NO. 016-6290
SHEET NO. SF-14 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1059
CDOT PROJECT NO. B-7-203		SN 016-6290		
ILLINOIS FED. AID PROJECT				

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SOLDIER PILE DATA – WALL A

Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D
5025+73.54	64.25	8.09	-5.16	11.09	-7.16
5025+93.19	85.96	8.89	3.41	11.89	1.41
5026+03.51	113.99	9.40	9.40	12.40	4.40
5026+04.61	121.44	9.53	9.53	12.53	4.53

SOLDIER PILE DATA – WALL B

Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D
5025+35.97	53.80	7.39	-5.34	10.39	-7.34
5025+07.44	47.47	7.42	2.16	10.42	0.16
5024+88.13	43.50	7.56	7.54	10.56	2.54

SOLDIER PILE DATA – WALL A

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W30X173	3'-6"	5025+76.19	66.40 Lt.	+5.18	-4.20	-7.20	-33.98	39.16	44
2	W30X173	3'-6"	5025+82.02	71.61 Lt.	+5.41	-1.91	-4.91	-27.12	32.53	36
3	HP14x117	-	5025+86.01	75.92 Lt.	+5.57	-0.20	-	-25.82	31.39	30
4	HP14x117	-	5025+90.22	81.36 Lt.	+5.77	1.80	-	-22.25	28.02	24
5	HP14x117	-	5025+93.91	87.19 Lt.	+5.96	3.80	-	-17.67	23.63	16
6	HP14x117	-	5025+97.05	93.36 Lt.	+6.16	5.80	-	-13.51	19.67	8
7	HP14x117	-	5025+99.98	100.74 Lt.	+6.36	8.09	-	-9.26	15.62	8
8	HP14x117	-	5026+02.03	107.43 Lt.	+6.48	9.09	-	-8.19	14.67	8
9	HP14x117	-	5026+03.57	114.26 Lt.	+6.55	9.27	-	-8.12	14.67	8
10	HP14x117	-	5026+04.47	120.19 Lt.	+6.56	9.37	-	-8.11	14.67	8

SOLDIER PILE DATA – WALL B

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W30X173	3'-6"	5025+32.66	53.04 Lt.	+4.41	-4.51	-7.51	-35.42	39.83	42
2	W30X173	3'-6"	5025+25.08	51.32 Lt.	+4.41	-2.51	-5.51	-29.23	33.64	34
3	HP14x117	-	5025+19.40	50.06 Lt.	+4.42	-1.01		-24.62	29.04	28
4	HP14x117	-	5025+13.70	48.81 Lt.	+4.43	0.49		-23.76	28.19	22
5	HP14x117	-	5025+06.09	47.19 Lt.	+4.46	2.49		-19.19	23.65	14
6	HP14x117	-	5025+00.37	45.99 Lt.	+4.49	3.99		-14.19	18.68	8
7	HP14x117	-	5024+94.64	44.81 Lt.	+4.52	5.49		-14.16	18.68	8
8	HP14x117	-	5024+89.39	43.75 Lt.	+4.55	6.87		-14.13	18.68	8

NOTES:

1. For locations A, B, C and D in the soldier pile wall tables, see Sheet SF-16 and SF-17.
   Elevation A – Finished Grade at Back Face of Wall (Top of Roadway)
   Elevation B – Proposed Grade at Front Face of Wall
   Elevation C – Top of Barrier Elevation
   Elevation D – Bottom of Cast-in-place Wall Facing
2. Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front of Cast-in-place Wall Facing, not including architectural precast concrete cladding.
3. Bottom of Panel should be placed at a minimum 2'-0" below proposed ground line.
4. Elevations shall be verified in the field and may be adjusted as directed by the engineer.
5. F.F. denotes Front Face.

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FILE NAME = ABC-sht-6290-Soldier pile wall details 3.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - KPS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOLDIER PILE DATA TABLE (1 OF 2)
STRUCTURE NO. 016-6290
SHEET NO. SF-15 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1060
CDOT PROJECT NO.	B-7-203	SN 016-6290		
	ILLINOIS FED. AID PROJECT			

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SOLDIER PILE DATA – WALL C

Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D
5025+54.23	39.59	9.89	-5.84	12.89	-7.84
5025+58.93	69.24	9.27	-4.49	12.27	-6.49
5025+59.61	99.24	8.65	-3.14	11.65	-5.14
5025+57.73	129.19	8.04	-1.79	11.04	-3.79
5025+54.24	157.91	7.42	-0.44	10.42	-2.44

SOLDIER PILE DATA – WALL D

Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D
5025+91.41	38.08	8.36	-4.63	11.36	-6.63
5026+21.59	38.38	8.96	2.87	11.96	0.87
5026+50.67	45.79	10.12	10.12	13.12	5.12
5026+59.50	55.18	10.59	10.59	13.59	5.59

SOLDIER PILE DATA – WALL C

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W30X173	3'-6"	718+99.94	16.00 Lt.	+5.24	-5.71	-8.71	-51.11	45.87	48
2	W30X173	3'-6"	718+91.94	16.00 Lt.	+4.89	-5.35	-8.35	-48.90	44.01	46
3	W30X173	3'-6"	718+83.95	16.00 Lt.	+4.54	-4.99	-7.99	-47.02	42.48	46
4	W30X173	3'-6"	718+75.94	16.08 Lt.	+4.20	-4.63	-7.63	-45.19	40.99	44
5	W30X173	3'-6"	718+67.80	16.55 Lt.	+4.11	-4.27	-7.27	-43.46	39.35	42
6	W30X173	3'-6"	718+59.28	17.25 Lt.	+4.03	-3.91	-6.91	-40.97	36.94	40
7	W30X173	3'-6"	718+48.59	18.27 Lt.	+3.92	-3.55	-6.55	-38.53	34.61	38
8	W30X173	3'-6"	718+37.84	19.10 Lt.	+3.81	-3.10	-6.10	-37.30	33.49	36
9	W30X173	3'-6"	718+29.20	19.59 Lt.	+3.72	-2.74	-5.74	-35.86	32.14	36
10	W30X173	3'-6"	718+20.55	19.92 Lt.	+3.63	-2.38	-5.38	-34.10	30.47	34
11	W30X173	3'-6"	718+11.87	20.08 Lt.	+3.55	-2.02	-5.02	-33.40	29.85	32
12	HP14X117	-	718+05.35	20.10 Lt.	+3.29	-1.79	-	-32.45	29.16	30
13	HP14X117	-	717+98.84	20.03 Lt.	+2.54	-1.52	-	-29.70	27.16	30
14	HP14X117	-	717+92.33	19.86 Lt.	+1.78	-1.25	-	-28.94	27.16	30
15	HP14X117	-	717+85.84	19.60 Lt.	+0.99	-0.98	-	-28.15	27.16	28
16	HP14X117	-	717+79.35	19.26 Lt.	+0.19	-0.71	-	-27.35	27.16	26

SOLDIER PILE DATA – WALL D

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W30X173	3'-6"	5025+94.84	37.25 Rt.	+5.51	-4.12	-7.12	-38.55	44.06	44
2	W30X173	3'-6"	5026+02.94	37.25 Rt.	+5.71	-2.12	-5.12	-32.61	38.32	36
3	W30X173	3'-6"	5026+10.94	37.29 Rt.	+5.93	-0.12	-3.12	-27.09	33.02	30
4	HP14X117	-	5026+16.94	37.36 Rt.	+6.14	1.38		-25.03	31.17	24
5	HP14X117	-	5026+22.93	37.72 Rt.	+6.33	2.88		-20.84	27.17	18
6	HP14X117	-	5026+28.89	38.44 Rt.	+6.51	4.38		-16.76	23.27	14
7	HP14X117	-	5026+36.74	39.97 Rt.	+6.81	5.88		-14.99	21.80	8
8	HP14X117	-	5026+44.44	42.14 Rt.	+7.07	7.38		-12.93	20.00	8
9	HP14X117	-	5026+51.14	45.52 Rt.	+7.28	8.88		-9.48	16.76	8
10	HP14X117	-	5026+55.68	49.44 Rt.	+7.47	10.26		-9.29	16.76	8
11	HP14X117	-	5026+59.26	54.25 Rt.	+7.64	10.49		-9.12	16.76	8

NOTES:

1. For locations A, B, C and D in the soldier pile wall tables, see Sheet SF-17.
   Elevation A – Finished Grade at Back Face of Wall (Top of Roadway)
   Elevation B – Proposed Grade at Front Face of Wall
   Elevation C – Top of Barrier Elevation
   Elevation D – Bottom of Cast-in-place Wall Facing
2. Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front of Cast-in-place Wall Facing, not including architectural precast concrete cladding.
3. Bottom of Panel should be placed at a minimum 2'-0" below proposed ground line.
4. Elevations shall be verified in the field and may be adjusted as directed by the engineer.
5. F.F. denotes Front Face.

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FILE NAME = ABC-sht-6290-Soldier pile wall details 4.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - KPS	REVISED -
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	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

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DEPARTMENT OF TRANSPORATION
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SOLDIER PILE DATA TABLE (2 OF 2)
STRUCTURE NO. 016-6290
SHEET NO. SF-16 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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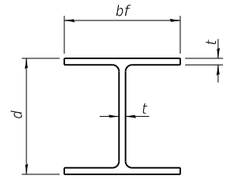
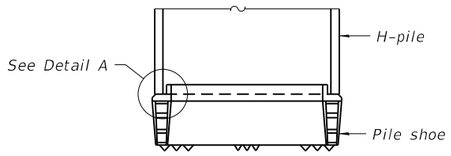
CDOT PROJECT NO.	B-7-203	SN 016-6290		
ILLINOIS	FED. AID PROJECT			

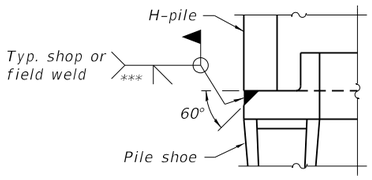


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



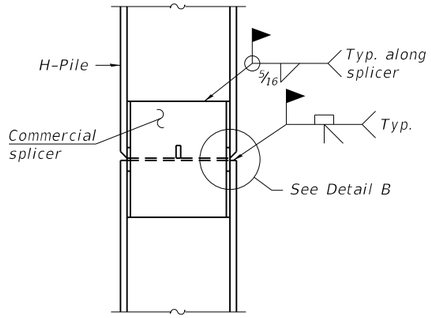
ELEVATION



DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



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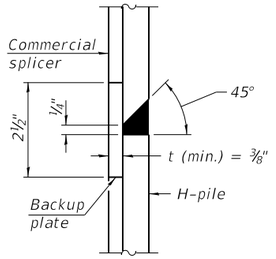
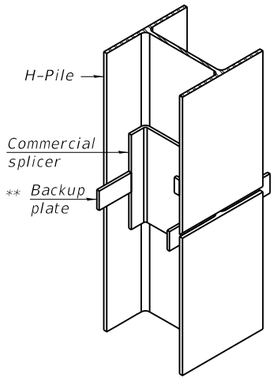
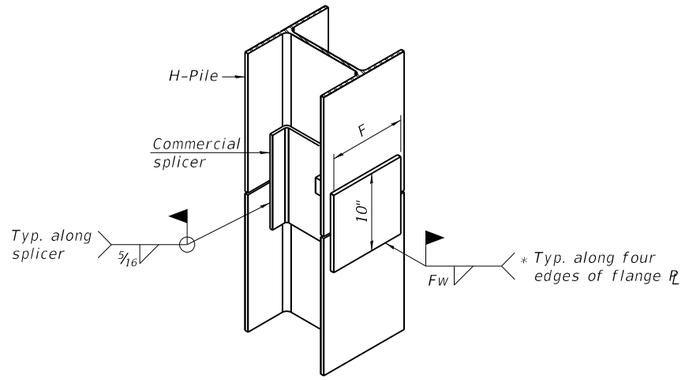


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



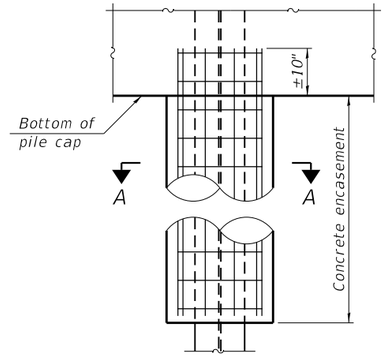
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

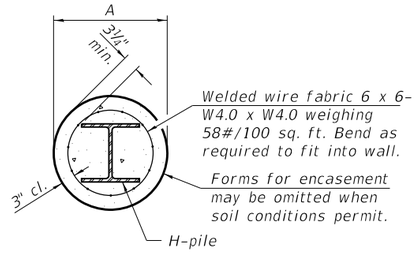
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



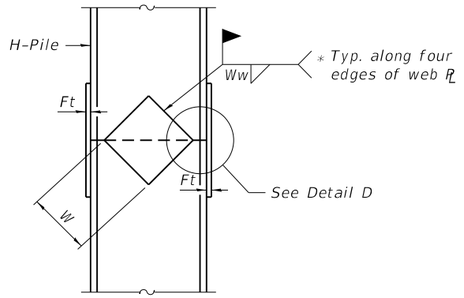
ELEVATION



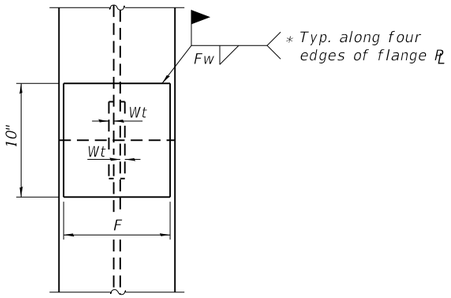
SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

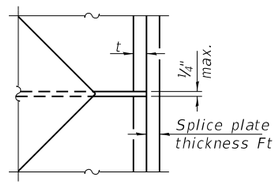
(when specified)



ELEVATION



END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

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F-HP 1-1-2020

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	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

HP PILE DETAILS
STRUCTURE NO. 016-6290
SHEET NO. SF-17 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1062
CDOT PROJECT NO.	B-7-203	SN 016-6290		
	ILLINOIS FED. AID PROJECT			

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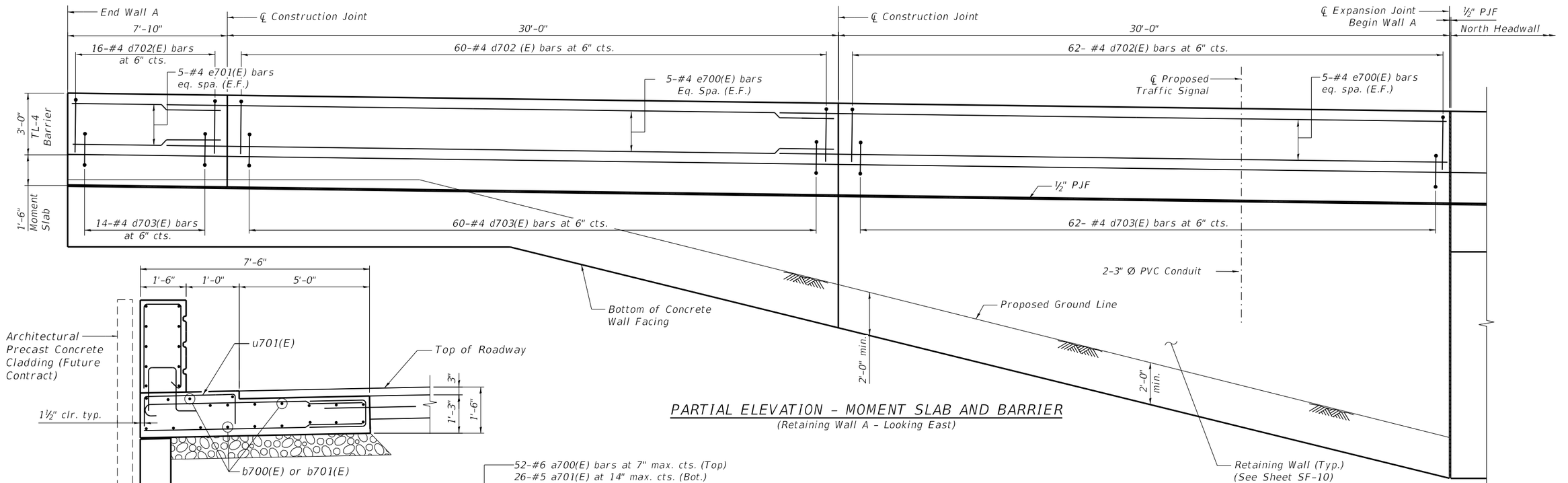
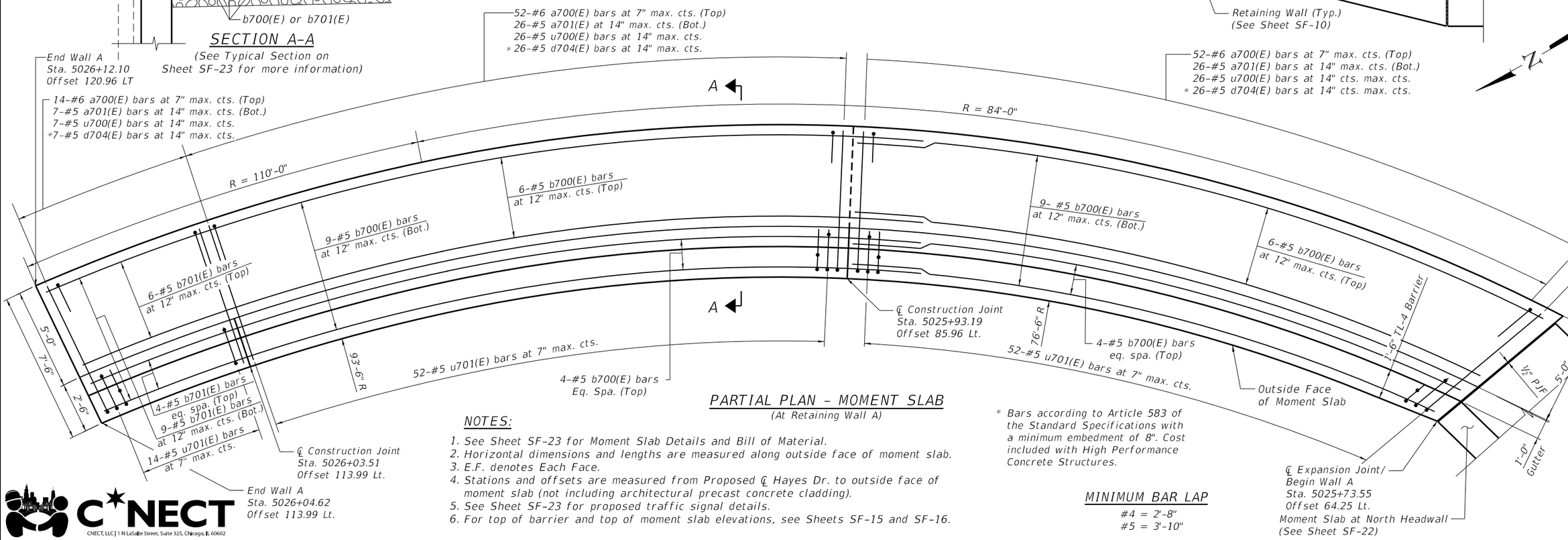


PARTIAL ELEVATION - MOMENT SLAB AND BARRIER

(Retaining Wall A - Looking East)

SECTION A-A

(See Typical Section on Sheet SF-23 for more information)



PARTIAL PLAN - MOMENT SLAB

(At Retaining Wall A)

NOTES:

1. See Sheet SF-23 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SF-23 for proposed traffic signal details.
6. For top of barrier and top of moment slab elevations, see Sheets SF-15 and SF-16.

* Bars according to Article 583 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

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FILE NAME = ABC-sht-6290-momslab-001.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (1 OF 5)
STRUCTURE NO. 016-6290
SHEET NO. SF-18 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1063
CDOT PROJECT NO.	B-7-203	SN 016-6290		
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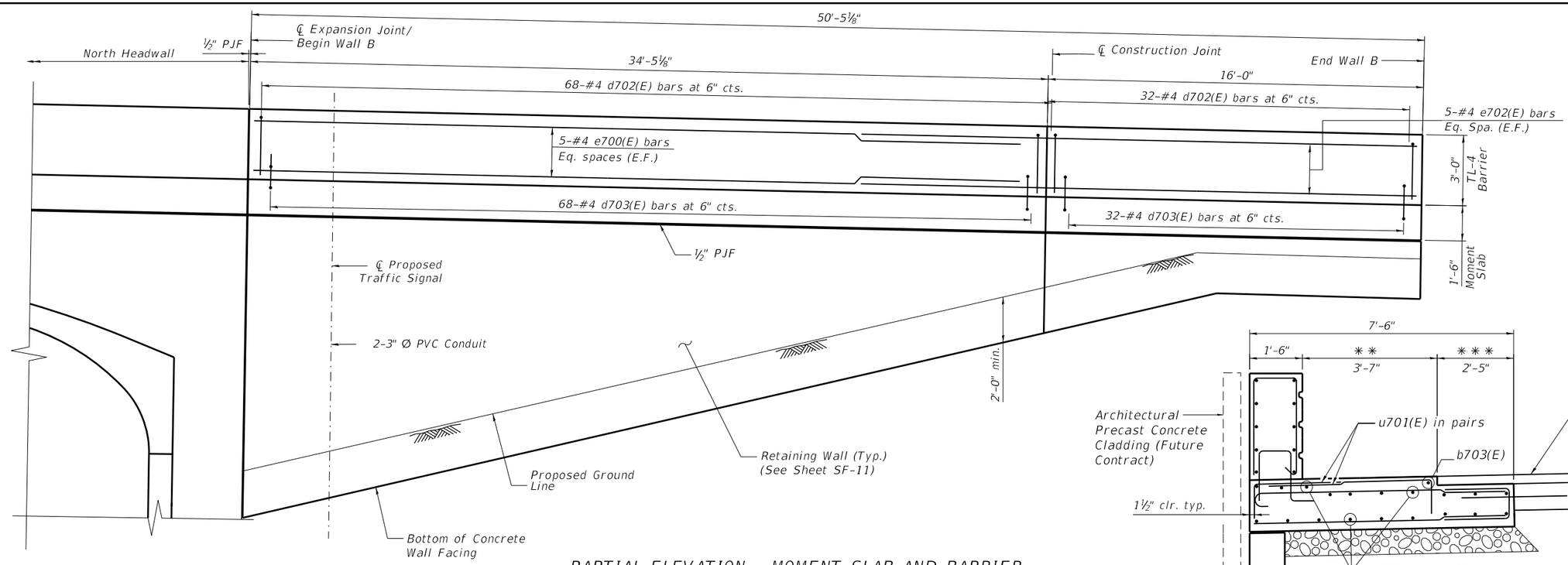
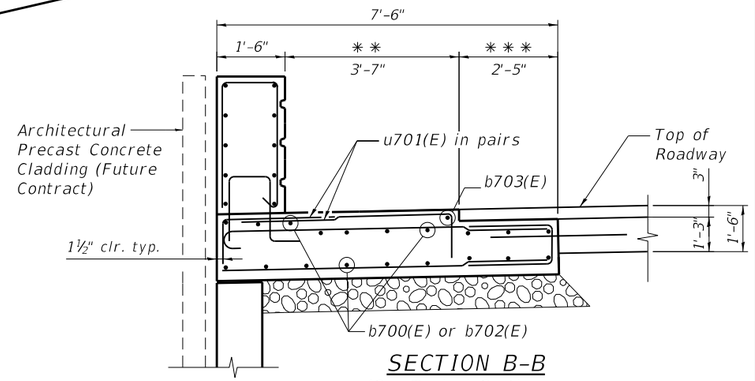


PARTIAL ELEVATION - MOMENT SLAB AND BARRIER

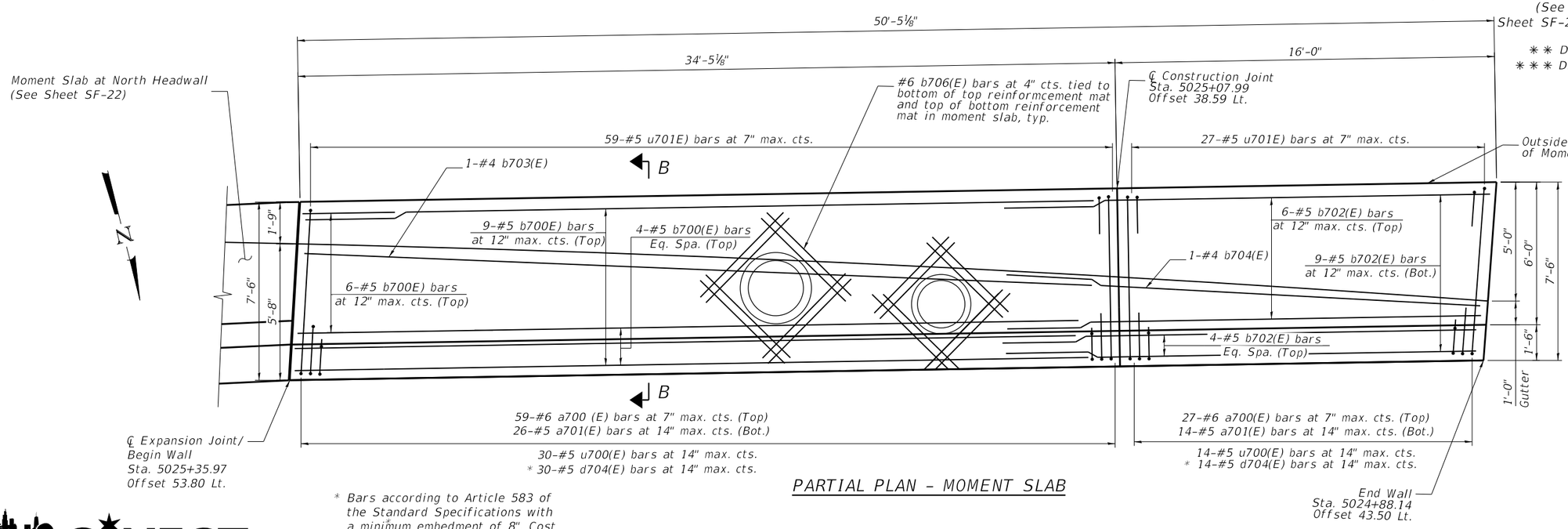
(Looking North - Retaining Wall B)



SECTION B-B

(See Typical Section on Sheet SF-23 for more information)

✱✱ Dimension varies from 1'-0" to 4'-3".
✱✱✱ Dimension varies from 1'-9" to 5'-0".



PARTIAL PLAN - MOMENT SLAB

NOTES:

1. See Sheet SF-23 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SF-23 for proposed traffic signal details.
6. For top of barrier and top of moment slab elevations, see Sheets SF-15 and SF-16.

* Bars according to Article 583 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-4"

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DEPARTMENT OF TRANSPORATION
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MOMENT SLAB PLAN AND ELEVATION (2 OF 5)
STRUCTURE NO. 016-6290
SHEET NO. SF-19 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO. B-7-203		SN 016-6290		
ILLINOIS FED. AID PROJECT				

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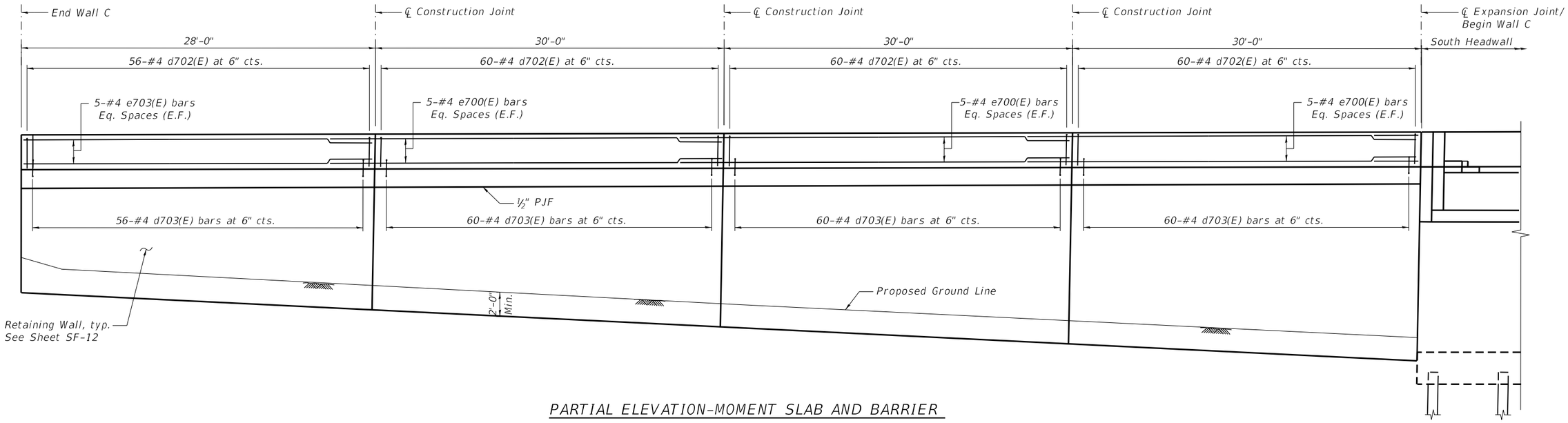
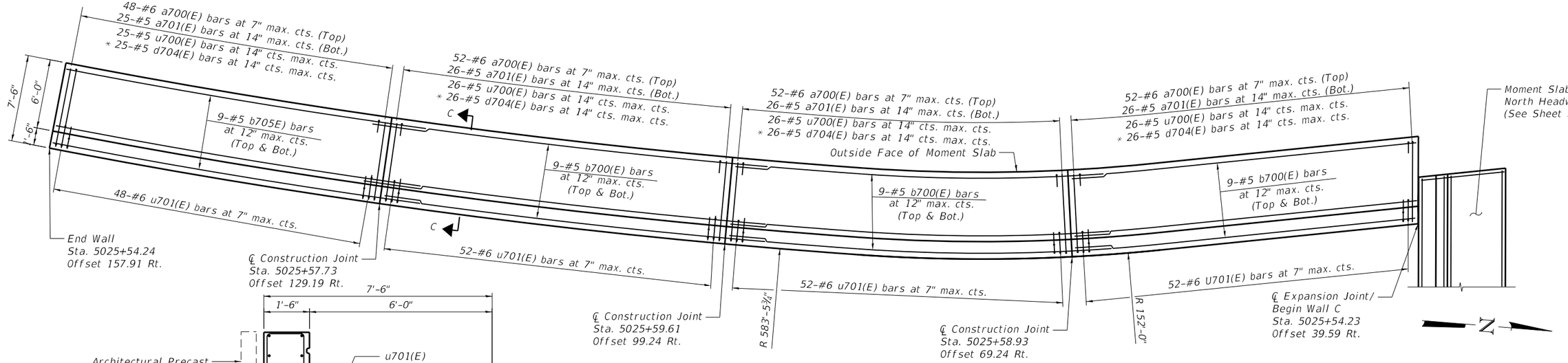


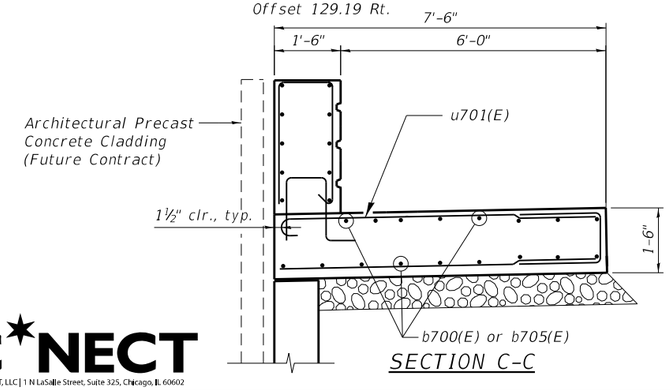
PARTIAL ELEVATION-MOMENT SLAB AND BARRIER

(Retaining Wall C - Looking West)



PARTIAL PLAN- MOMENT SLAB

(At Retaining Wall C)



SECTION C-C

* Bars according to Article 583 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SF-23 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SF-23 for proposed traffic signal details.
6. For top of barrier and top of moment slab elevations, see Sheets SF-15 and SF-16.

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FILE NAME = ABC-sht-6290-momslab-003.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - KPS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (3 OF 5)
STRUCTURE NO. 016-6290
SHEET NO. SF-20 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1065
CDOT PROJECT NO. B-7-203		SN 016-6290		
ILLINOIS FED. AID PROJECT				

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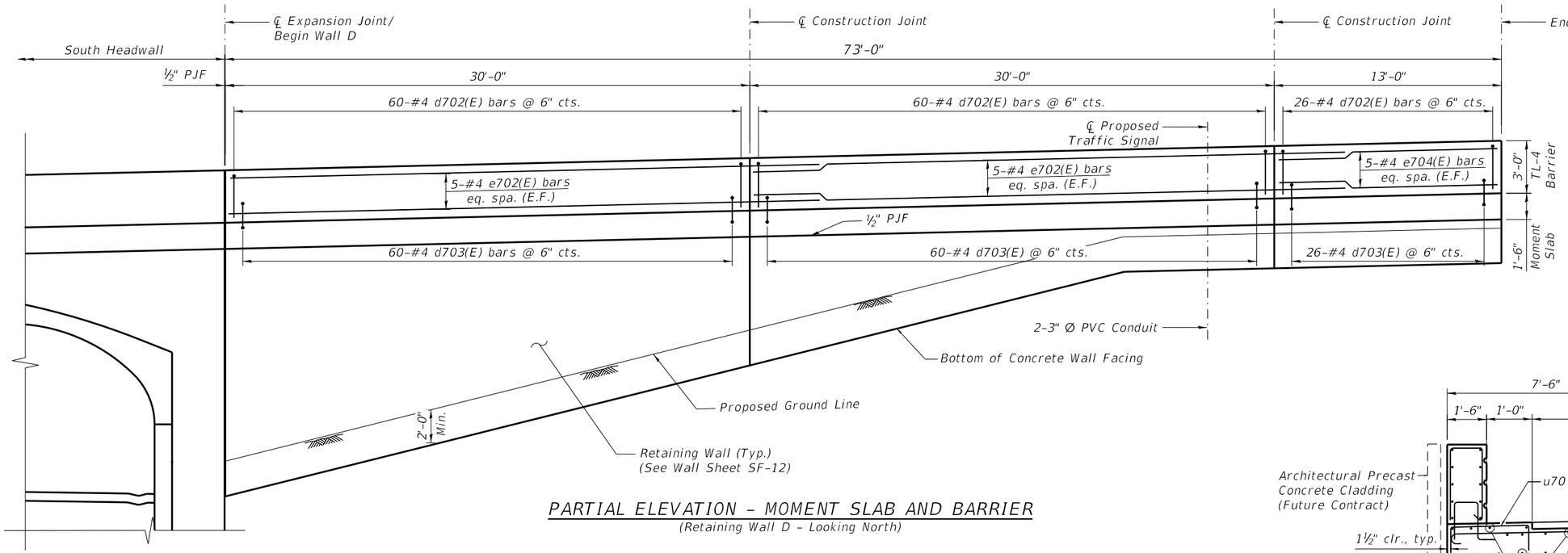
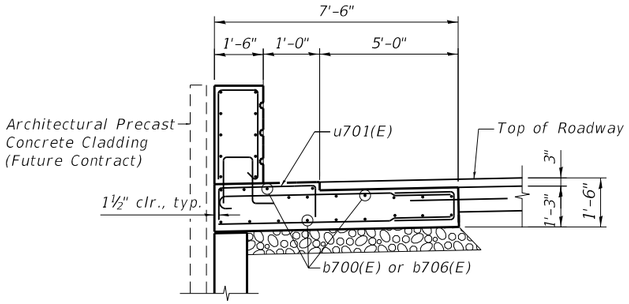


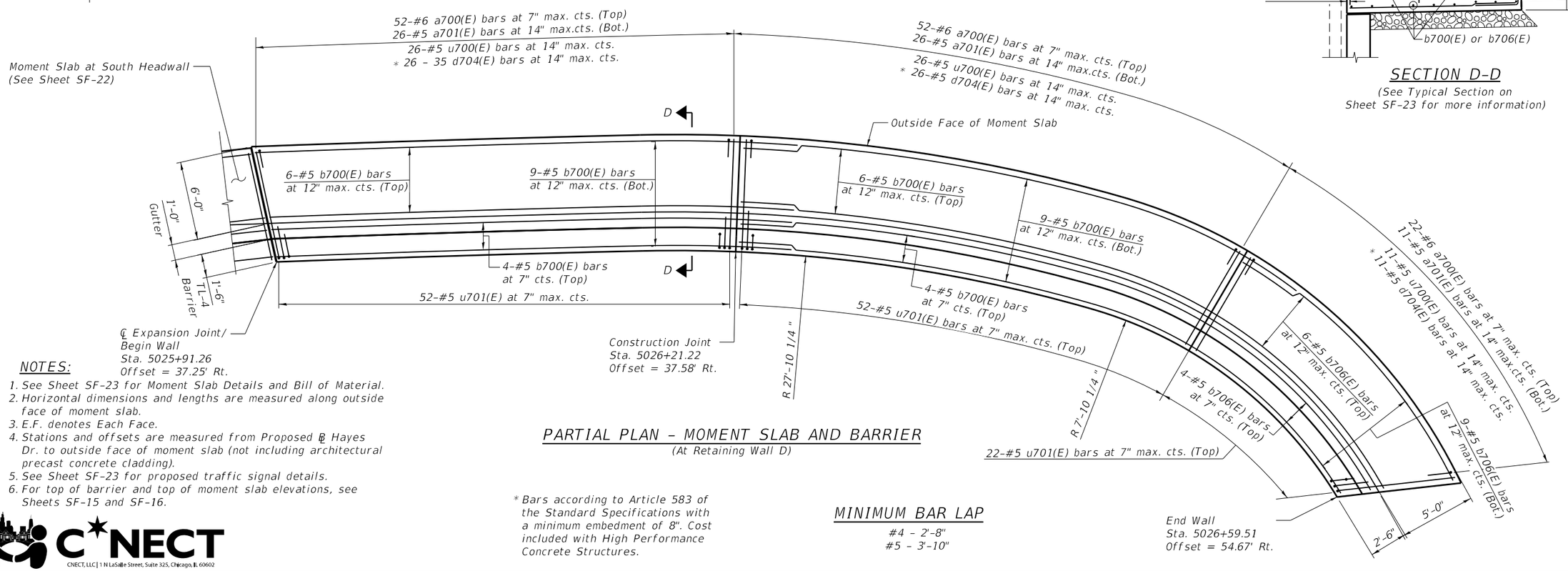
PARTIAL ELEVATION – MOMENT SLAB AND BARRIER

(Retaining Wall D – Looking North)



SECTION D-D

(See Typical Section on
Sheet SF-23 for more information)



PARTIAL PLAN – MOMENT SLAB AND BARRIER

(At Retaining Wall D)

NOTES:

1. See Sheet SF-23 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SF-23 for proposed traffic signal details.
6. For top of barrier and top of moment slab elevations, see Sheets SF-15 and SF-16.

* Bars according to Article 583 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 – 2'-8"
#5 – 3'-10"

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FILE NAME = ABC-sht-6290-momslab-004.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
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	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (4 OF 5)
STRUCTURE NO. 016-6290
SHEET NO. SF-21 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1066
CDOT PROJECT NO.	B-7-203	SN 016-6290		
	ILLINOIS FED. AID PROJECT			

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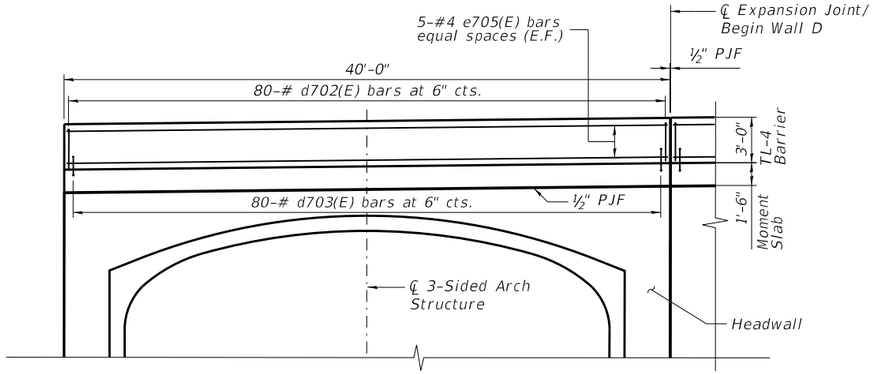
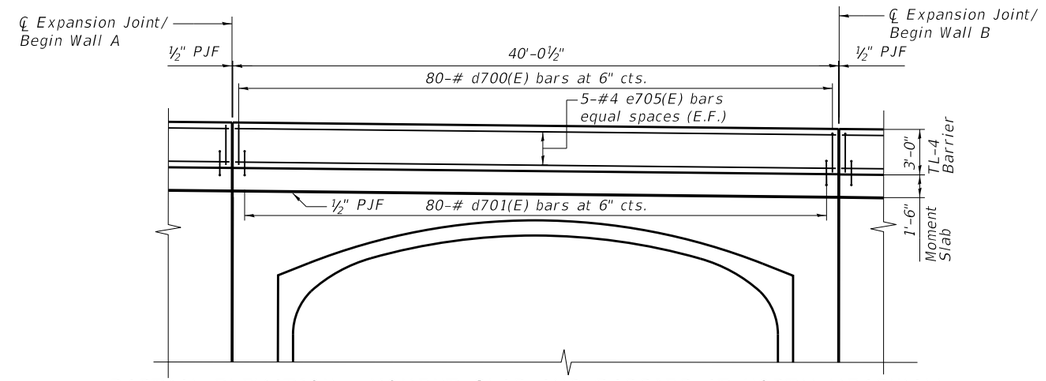


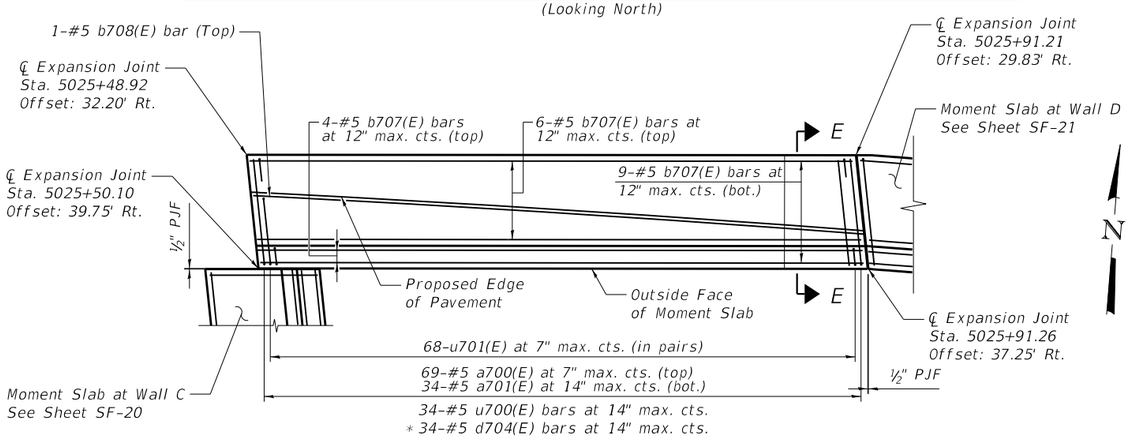
PARTIAL ELEVATION – MOMENT SLAB AND BARRIER AT SOUTH HEADWALL

(Looking North)



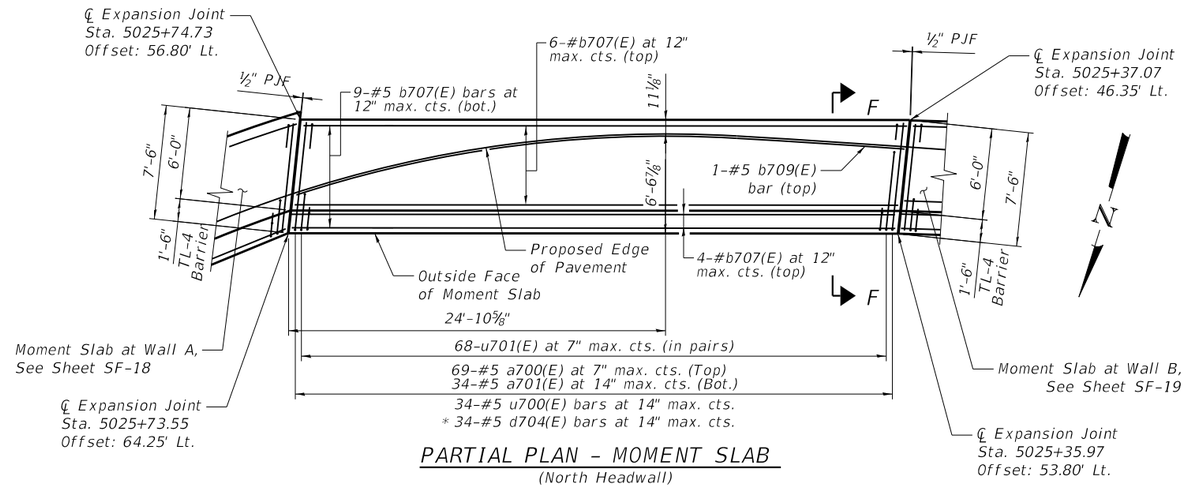
PARTIAL ELEVATION – MOMENT SLAB AND BARRIER AT NORTH HEADWALL

(Looking South)



PARTIAL PLAN – MOMENT SLAB

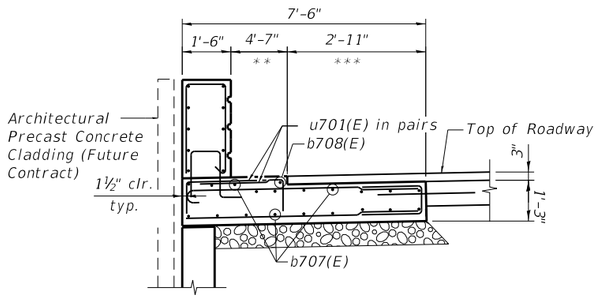
(South Headwall)



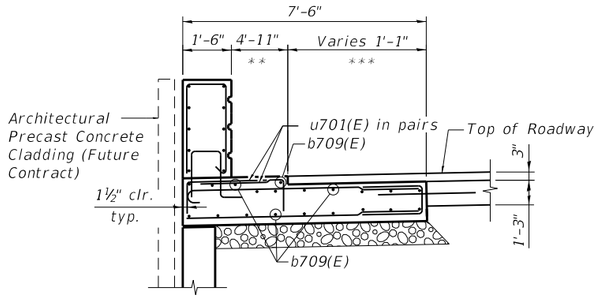
PARTIAL PLAN – MOMENT SLAB

(North Headwall)

* Bars according to Article 583 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.



SECTION E-E



SECTION F-F

** Dimension varies from 2'-5¾" to 5'-0"
*** Dimension varies from 3'-6⅝" to 1'-0"

** Dimension varies from 4'-11" to 1'-9¼"
*** Dimension varies from 1'-1⅜" to 4'-3"

NOTES:

1. See Sheet SF-23 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SF-23 for proposed traffic signal details.
6. For top of barrier and top of moment slab elevations, see Sheets SF-15 and SF-16.

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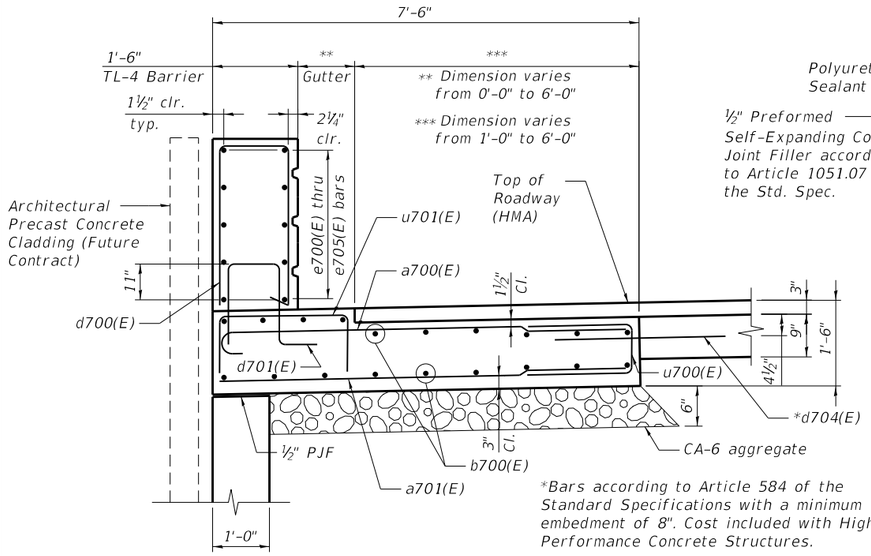
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - RRS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

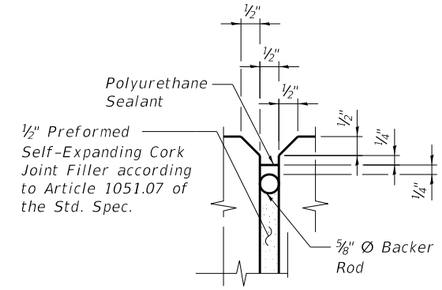
MOMENT SLAB PLAN AND ELEVATION (5 OF 5)
STRUCTURE NO. 016-6290
SHEET NO. SF-22 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1067
CDOT PROJECT NO. B-7-203		SN 016-6290		
ILLINOIS FED. AID PROJECT				

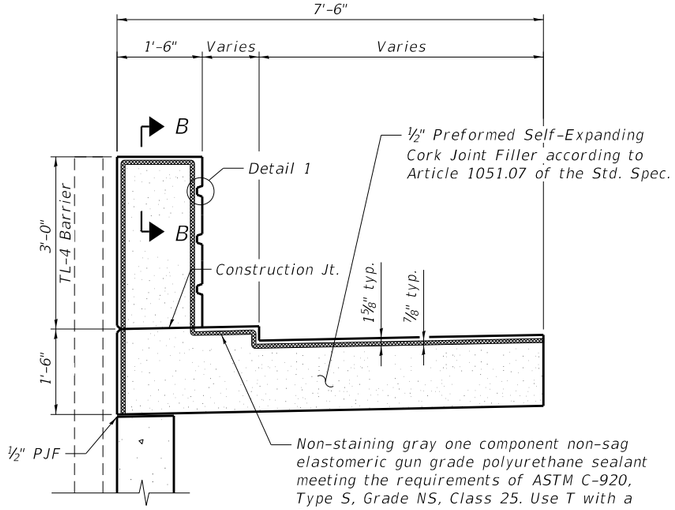


*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

TYPICAL SECTION



SECTION B-B

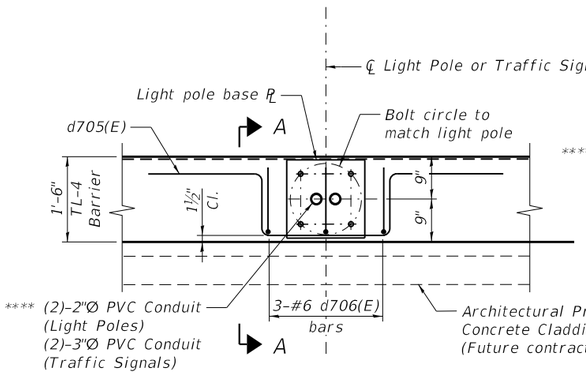


FULL HEIGHT EXPANSION JOINT DETAILS

BILL OF MATERIAL

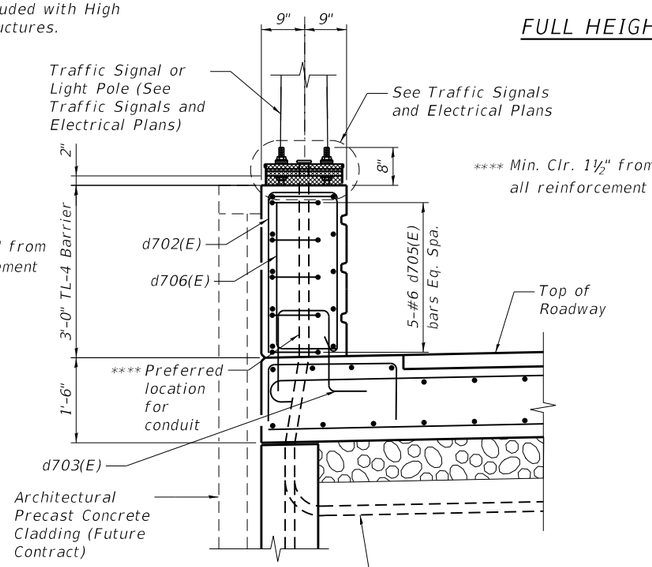
Bar	No.	Size	Length	Shape
a700(E)	664	#6	7'-11"	
a701(E)	396	#5	7'-3"	
b700(E)	149	#5	32-6"	
b701(E)	14	#5	7'-7"	
b702(E)	19	#5	19'-9"	
b703(E)	1	#5	33'-2"	
b704(E)	1	#5	20'-0"	
b705(E)	18	#5	27'-9"	
b706(E)	19	#5	12'-9"	
b707(E)	38	#5	39'-9"	
b708(E)	1	#5	40'-3"	
b709(E)	1	#5	40'-0"	
d702(E)	766	#4	7'-1"	
d703(E)	766	#4	4'-5"	
d704(E)	334	#5	3'-0"	
d705(E)	15	#6	8'-5"	
d706(E)	9	#6	3'-7"	
e700(E)	110	#4	32'-6"	
e701(E)	10	#4	7'-7"	
e702(E)	10	#4	19'-9"	
e703(E)	10	#4	27'-9"	
e704(E)	10	#4	12'-9"	
e705(E)	20	#4	39'-9"	
u700(E)	335	#6	4'-9"	
u701(E)	662	#5	4'-5"	
High Performance Concrete Structures			Cu. Yd.	226.7
Protective Concrete Sealer			Sq. Yd.	360
Reinforcement Bars, Epoxy Coated			Pound	34,910

Bars indicated thus 9x2-#5 etc. indicate 9 lines of bars with 2 lengths per line.

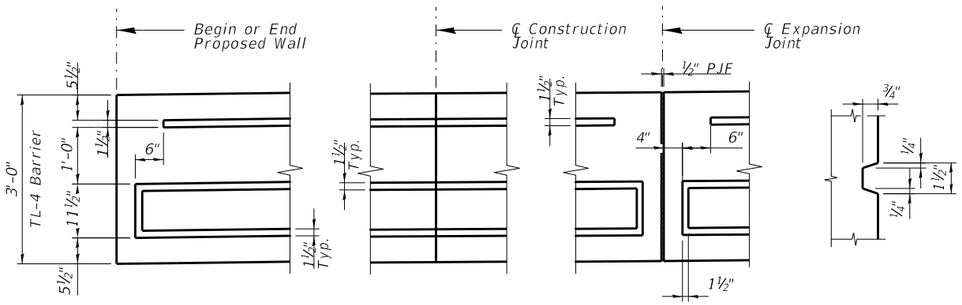


**** Min. Clr. 1½" from all reinforcement

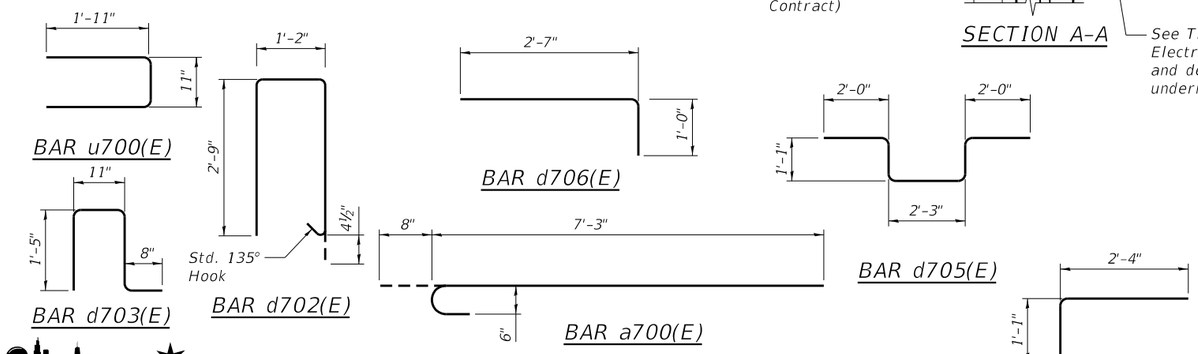
PLAN - LIGHT POLE AND TRAFFIC SIGNAL BASE

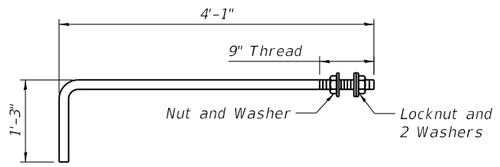


SECTION A-A



TYPICAL BARRIER NOTCH LAYOUT DETAIL





ANCHOR ROD

(Diameter as specified for light poles and traffic signals, ASTM F1554, Grade 105, full length hot dip galvanized)

NOTES:

1. See Traffic Signals and Electrical plans for traffic signal and lighting details.
2. Cost of bond breaker, PJF, backer rod and sealant included with the cost of High Performance Concrete Structures.
3. Cost of anchor rods included with High Performance Concrete Structures.
4. Protective Concrete Sealer for the moment slab and barrier shall only be applied to the gutter, roadway face of barrier and top of barrier.

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FILE NAME = ABC-sht-6290-momslabde.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
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	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - KPS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

MOMENT SLAB DETAILS AND BILL OF MATERIAL
STRUCTURE NO. 016-6290
SHEET NO. SF-23 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1068
CDOT PROJECT NO.	B-7-203	SN 016-6290		
	ILLINOIS FED. AID PROJECT			

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GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 8/1/18

ROUTE F.A.U. 1520 **DESCRIPTION** Hayes & Lake Shore **LOGGED BY** EP

SECTION 17-B7203-00-ES **LOCATION** Hayes & Lake Shore **Northing** 1863635.416 **Easting** 1190954.75

COUNTY Cook **DRILLING METHOD** HSA **HAMMER TYPE** AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B01
Station 5024+95
Offset 42.00ft LT
Ground Surface Elev. 11.26 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.8 ft ▼
Upon Completion N/A ft
After ____ **Hrs.** N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
6 inches of Topsoil 10.76						
Brown and Gray, Moist FILL: SAND, with gravel and brick fragments 9.26		8 8 9		14		
Medium Dense Light Brown, Moist to Wet SAND, trace gravel (SP)		3 4 3		9		
		4 6 8		23		
0.26		4 7 7		26		
Medium Dense to Dense Gray, Moist to Wet SILTY SAND, trace gravel (SM)		8 12 16		28		
		8 9 9		22		
		1 5 10		20		
		4 5 5		19		

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)

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SOIL BORING LOG

Date 8/1/18

ROUTE F.A.U. 1520 **DESCRIPTION** Hayes & Lake Shore **LOGGED BY** EP

SECTION 17-B7203-00-ES **LOCATION** Hayes & Lake Shore **Northing** 1863635.416 **Easting** 1190954.75

COUNTY Cook **DRILLING METHOD** HSA **HAMMER TYPE** AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B01
Station 5024+95
Offset 42.00ft LT
Ground Surface Elev. 11.26 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.8 ft ▼
Upon Completion N/A ft
After ____ **Hrs.** N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Medium Dense to Dense Gray, Moist to Wet SILTY SAND, trace gravel (SM) *(continued)*		1 2 2		21		
-12.24		1 2 3	0.2 B	27		
Very Soft Gray, Very Moist SANDY CLAY, trace gravel (CL) -13.74		2 3 6	1.3 B	18		
Stiff Gray, Moist SILTY CLAY, trace gravel (CL/ML)		3 4 6	1.9 B	17		
-18.74						
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)

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FILE NAME = ABC-sht-6290-boring-001.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - RRS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - RRS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (1 OF 8)
STRUCTURE NO. 016–6290
SHEET NO. SF-24 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1069
CDOT PROJECT NO. B-7-203		SN 016-6290		
ILLINOIS	FED. AID PROJECT			

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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863654.35 Easting 1191009.806

COUNTY Cook DRILLING METHOD MUD ROTARY HAMMER TYPE AUTO

STRUCT. NO. TBD
Station 5025+69

BORING NO. Hayes-LSD-B02
Station 5025+26
Offset 59.60ft LT
Ground Surface Elev. 11.12 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 4.1 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
12 inches of TOPSOIL 10.62							
Brown and Gray, Moist FILL: SAND, trace gravel and clay		3					
		4 5		5			
		3					
		3 5		13			
		2					
		3 8		10			
		4					
		9 9		17			
0.12		2					
Medium Dense to Dense Brown and Gray, Very Moist SILTY SAND (SM)		6 9		25			
		7					
		8 12		24			
		7					
-5.88		11 13		22			
Loose to Medium Dense Gray, Moist to Very Moist SAND, trace gravel (SP)		3					
-8.38		3 4		19			

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)

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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863654.35 Easting 1191009.806

COUNTY Cook DRILLING METHOD MUD ROTARY HAMMER TYPE AUTO

STRUCT. NO. TBD
Station 5025+69

BORING NO. Hayes-LSD-B02
Station 5025+26
Offset 59.60ft LT
Ground Surface Elev. 11.12 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 4.1 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
Loose Gray, Moist SILTY SAND (SM) *(continued)*		2					
-10.88		1 1	0.4 B	19			
Very Soft to Soft Gray, Moist CLAY (CL)		2					
		1 1	0.2 B	17			
		1					
		1 2	0.2 B	29			
		1					
		2 1	0.4 B	28			
		1					
		1 1 3	0.2 B	27			
-27.38		6					
Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)		8 15	5.8 B	13			

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)

GGC CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863654.35 Easting 1191009.806

COUNTY Cook DRILLING METHOD MUD ROTARY HAMMER TYPE AUTO

STRUCT. NO. TBD
Station 5025+69

BORING NO. Hayes-LSD-B02
Station 5025+26
Offset 59.60ft LT
Ground Surface Elev. 11.12 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 4.1 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML) *(continued)*							
-32.88		14					
Dense Gray, Moist SILTY LOAM, trace gravel (ML)		16 21		14			
-37.38		8					
Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)		10 15	7.9 B	12			
-38.88 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)

C*NECT
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FILE NAME = ABC-sht-6290-boring 002.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - RRS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - RRS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOIL BORING LOG (2 OF 8)
STRUCTURE NO. 016-6290
SHEET NO. SF-25 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1070
	CDOT PROJECT NO. B-7-203		SN 016-6290	
	ILLINOIS FED. AID PROJECT			

GGC CONSULTANTS, INC.
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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863672.154 Easting 1191043.684

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B03
Station 5025+82
Offset 77.40ft LT
Ground Surface Elev. 11.18 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.7 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
12 inches of TOPSOIL 10.68						
Black, Very Moist FILL: SANDY LOAM		3				
		3 3		20		
		2				
7.18						
Brown, Moist to Very Moist FILL: SAND, trace gravel	-5	3 5		22		
		4				
		2 3		10		
2.68 ▼						
Loose to Medium Dense Brown and Gray, Very Moist SILTY SAND (SM)		1				
	-10	1 6		19		
		4				
		7 9		25		
		5				
	-15	7 10		27		
		3				
		9 11		27		
		5				
	-20	8 9		23		

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)

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SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863672.154 Easting 1191043.684

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B03
Station 5025+82
Offset 77.40ft LT
Ground Surface Elev. 11.18 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.7 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Loose to Medium Dense Brown and Gray, Very Moist SILTY SAND (SM) *(continued)*		2				
		2 1		22		
		1				
-13.32						
Very Soft to Soft Gray, Moist CLAY, with sand pockets (CL)	-25	1 2	0.2 B	23		
		1				
		1 2	0.2 B	28		
		1				
	-30	1 2	0.2 B	28	112	
		1				
		1 1	0.4 B	25		
	-35	2				
-27.32						
Hard to Very Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)	-40	7 10 15	5.8 B	14		

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)

GGC CONSULTANTS, INC.
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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863672.154 Easting 1191043.684

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B03
Station 5025+82
Offset 77.40ft LT
Ground Surface Elev. 11.18 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.7 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Hard to Very Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML) *(continued)*		18				
	-45	20 27	9.0 P	17		
		8				
-38.82	-50	11 15	8.1 B	13		
End of Boring						
	-55					
	-60					

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)

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6290-boring 003.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - RRS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - RRS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOIL BORING LOG (3 OF 8)
STRUCTURE NO. 016-6290
SHEET NO. SF-26 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1071
CDOT PROJECT NO. B-7-203		SN 016-6290		
ILLINOIS FED. AID PROJECT				

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GSG CONSULTANTS, INC.
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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863714.262 Easting 1191063.802

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B04
Station 5026+00
Offset 119.80ft LT
Ground Surface Elev. 11.01 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
15 inches of TOPSOIL		4				
9.76		3 3		4		
Brown, Moist FILL: SAND		2				
		2 2		5		
-5		1				
		1 2		13		
2.51 ▼		1				
Very Loose Black and Brown, Very Moist SAND, trace clay (SP)		1 1		23		
-10 0.01		5				
Loose Gray and Brown, Very Moist SAND, with silt (SP)		4 4		28		
-2.49		6				
Loose to Dense Gray, Very Moist SILTY SAND (SM)		10 11		24		
-15		6				
		9 13		23		
		4				
-20		6 10		21		

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 T205)

GSG CONSULTANTS, INC.
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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863714.262 Easting 1191063.802

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B04
Station 5026+00
Offset 119.80ft LT
Ground Surface Elev. 11.01 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Loose to Dense Gray, Very Moist SILTY SAND (SM) *(continued)*		5				
		5 3		22		
-12.99		1				
Very Soft to Soft Gray, CLAY, trace gravel (CL)		1 2	0.2	28		
-25		1				
		1 3	0.4	26		
		1				
-30		1 1	0.4	28		
		2				
-23.99 -35		2 2	0.4	23		
End of Boring						
-40						

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)

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6290-boring-004.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - RRS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - RRS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (4 OF 8)
STRUCTURE NO. 016–6290
SHEET NO. SF-27 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1072
	CDOT PROJECT NO. B-7-203		SN 016-6290	
		ILLINOIS FED. AID PROJECT		

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SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863455.304 Easting 1191047.837

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B05
Station 5025+89
Offset 139.30ft RT
Ground Surface Elev. 6.51 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
6 inches of TOPSOIL 6.01						
Brown, Moist FILL:SAND		3				
		3 3		10		
3.01		2				
Very Loose Black and Brown, Very Moist SAND, trace clay (SP)	-5	1 1		28		
0.51		0				
Very Loose to Loose Gray, Very Moist to Wet SILTY SAND (SM)		0 1		48		3.3
		0				
	-10	1 2		28		
		0				
		1 1		36		1.8
		2				
	-15	2 2		27		
		3				
		3 1		29		
		1				
-12.99	-20	1 2	0.2 B	29		

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)

GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
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SOIL BORING LOG

Date 8/9/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863455.304 Easting 1191047.837

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B05
Station 5025+89
Offset 139.30ft RT
Ground Surface Elev. 6.51 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Medium Stiff Gray, Moist CLAY, trace gravel (CL) *(continued)*		0				
		1 2	0.4 B	23		
		1				
	-25	3 4	0.6 B	15		
-20.49		0				
Medium stiff to Stiff Gray, Moist SILTY CLAY, trace gravel (CL/ML)		2 3	0.6 B	18		
		2				
-23.49	-30	4 5	1.0 B	18		
End of Boring						
	-35					
	-40					

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)

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6290-boring-005.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - RRS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - RRS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (5 OF 8)
STRUCTURE NO. 016–6290
SHEET NO. SF-28 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1073
CDOT PROJECT NO.	B-7-203	SN 016-6290		
ILLINOIS	FED. AID PROJECT			

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SOIL BORING LOG

Page 1 of 3

Date 7/31/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863547.777 Easting 1191048.791

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. TBD
Station 5025+69

BORING NO. Hayes-LSD-B06
Station 5025+66
Offset 46.90ft RT
Ground Surface Elev. 8.50 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
12 inches of Topsoil						
7.50		7				
Black, Moist FILL: SAND, with gravel, trace organics		7 7		11		
5.00		3				
Very Loose Brown, Moist to Wet SAND, trace gravel (SP)	-5	3 3		9		
		0				
		1 1		30		
		1				
-1.00		1 1		26		
Very Loose to Loose Gray, Very Moist SAND, trace silt and gravel (SP)	-10	1				
		1 1		23		
		2				
		1 1		22		
	-15	0				
		1 1		25		
		3				
	-20	4 4		27		

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)

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SOIL BORING LOG

Page 2 of 3

Date 7/31/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863547.777 Easting 1191048.791

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. TBD
Station 5025+69

BORING NO. Hayes-LSD-B06
Station 5025+66
Offset 46.90ft RT
Ground Surface Elev. 8.50 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Loose to Loose Gray, Very Moist SAND, trace silt and gravel (SP) *(continued)*		1				
-13.50		2 3	0.4 P	22		
Soft Gray, Moist CLAY, trace sand (CL)		1				
	-25	1 2	0.4 B	22		
-17.50		3				
Medium Stiff to Stiff Gray, Moist SILTY CLAY, trace gravel and sand (CL/ML)		4 5	0.6 B	22		
		2				
	-30	3 5	1.3 B	20		
		3				
	-35	4 6	1.5 B	18		
-30.00		6				
Hard Gray, Moist SILTY CLAY, with gravel (CL/ML)	-40	8 11	4.8 B	12		

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)

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SOIL BORING LOG

Page 3 of 3

Date 7/31/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863547.777 Easting 1191048.791

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. TBD
Station 5025+69

BORING NO. Hayes-LSD-B06
Station 5025+66
Offset 46.90ft RT
Ground Surface Elev. 8.50 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Hard Gray, Moist SILTY CLAY, with gravel (CL/ML) *(continued)*		7				
	-45	3 10	4.8 B	13		
		6				
-41.50	-50	9 10	6.3 B	12		
End of Boring						
	-55					
	-60					

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)

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6290-boring-006.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - RRS	REVISED -
	PLOT SCALE =	DRAWN - RRD	REVISED -
	PLOT DATE = 7/9/2020	CHECKED - RRS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (6 OF 8)
STRUCTURE NO. 016–6290
SHEET NO. SF-29 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1074
CDOT PROJECT NO.	B-7-203	SN 016-6290		
ILLINOIS	FED. AID PROJECT			

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SOIL BORING LOG

Page 1 of 3

Date 8/1/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863560.373 Easting 1191079.513

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B07
Station 5026+18
Offset 33.60ft RT
Ground Surface Elev. 9.90 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 3.9 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
12 inches of Topsoil						
8.90						
Brown, Black and Gray, Moist FILL: SAND, trace gravel		4				
7.90		7 5		11		
Brown and Black, Moist FILL: SAND, trace clay						
5.90		1				
Very Loose Brown and Gray, Very Moist SAND (SP)	-5	2 2		8		
		0				
		1 1		26		
		0				
	-10	0 1		25		
-1.10						
Loose to Medium Dense Gray, Moist SAND, with silt, trace gravel (SP)		1				
		2 3		24		
		1				
	-15	2 3		23		
		2				
		4 7		24		
		3				
	-20	6 6		22		

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)

GGC CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Page 2 of 3

Date 8/1/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863560.373 Easting 1191079.513

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B07
Station 5026+18
Offset 33.60ft RT
Ground Surface Elev. 9.90 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 3.9 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Loose to Medium Dense Gray, Moist SAND, with silt, trace gravel (SP) *(continued)*		2				
-12.10		3 3	0.3 P	20		
Very Soft to Soft Gray, Moist CLAY, trace gravel (CL)		2				
	-25	2 4	0.4 B	18	118.4	
		2				
		2 3	0.4 B	22		
		2				
	-30	3 4	0.2 B	20		
-23.60						
Stiff to Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)		2				
	-35	4 6	1.0 B	17		
		6				
	-40	7 10	4.8 B	15		

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)

GGC CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Page 3 of 3

Date 8/1/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863560.373 Easting 1191079.513

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B07
Station 5026+18
Offset 33.60ft RT
Ground Surface Elev. 9.90 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 3.9 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Stiff to Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML) *(continued)*		6				
	-45	8 11	4.6 B	13		
-40.10	-50	6 9 10	5.2 B	13		
End of Boring						
	-55					
	-60					

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)

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FILE NAME = ABC-sht-6290-boring-007.dgn	USER NAME = RDsouza	DESIGNED - RRD	REVISED -
		CHECKED - RRS	REVISED -
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	PLOT DATE = 7/9/2020	CHECKED - RRS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (7 OF 8)
STRUCTURE NO. 016–6290
SHEET NO. SF-30 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1075
CDOT PROJECT NO.	B-7-203	SN 016-6290		
ILLINOIS	FED. AID PROJECT			

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GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/31/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863524.116 Easting 1191129.85

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B08
Station 5026+70
Offset 68.70ft RT
Ground Surface Elev. 11.11 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.6 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
12 inches of Topsoil						
10.11						
Black and Brown, Moist FILL: CLAYEY SAND		2				
		3 3		26		
7.61						
Very Loose Brown, Moist to Very Moist SAND, trace silt (SP)		1				
		2 1		8		
		1				
		1 2		14		
		1				
		1 1		24		
0.11						
Very Loose Gray and Brown, Very Moist to Wet SAND (SP)		0				
		1 1		23		
		1				
		1 2		22		
		1				
		1 2		33		
-7.39						
Very Loose to Loose Gray, Very Moist SAND, with silt (SM)		1				
		2 2		25		

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)

GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/31/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Lake Shore LOGGED BY EP

SECTION 17-B7203-00-ES LOCATION Hayes & Lake Shore Northing 1863524.116 Easting 1191129.85

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6290
Station 5025+64

BORING NO. Hayes-LSD-B08
Station 5026+70
Offset 68.70ft RT
Ground Surface Elev. 11.11 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.6 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Loose to Loose Gray, Very Moist SAND, with silt (SM) *(continued)*		2				
		5 5		23		
-12.89		1				
Very Soft Gray, Moist CLAY (CL)		1 2	0.2 B	27		
-15.39		1				
Loose Gray, Very Moist SAND, with silt, trace gravel		2 2		20		
-17.39		1				
Soft Gray, Moist CLAY (CL)		2 3	0.4 B	21		
-18.89						
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)

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (8 OF 8)
STRUCTURE NO. 016–6290
SHEET NO. SF-31 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1076
CDOT PROJECT NO.	B-7-203	SN 016-6290		
ILLINOIS	FED. AID PROJECT			

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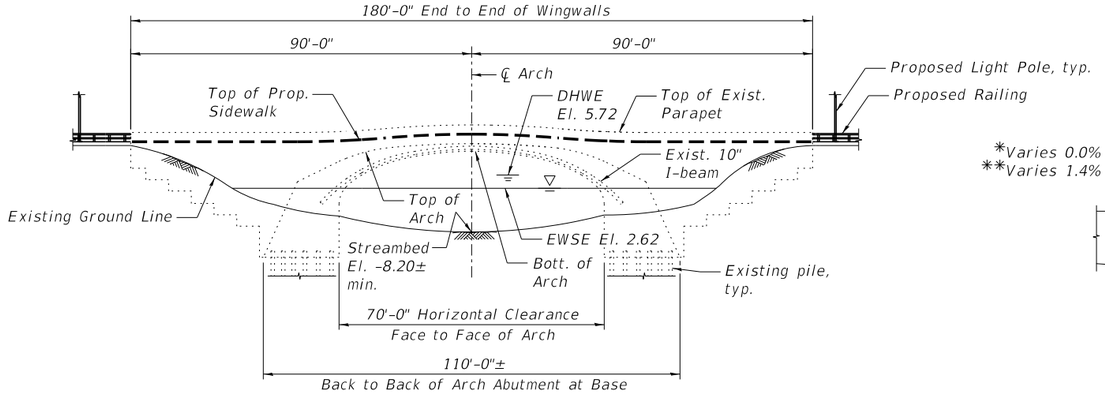
Bench Mark:
Cut "X" on N.E. bolt of 2nd light pole east of Inner Harbor Bridge, east of Richards Dr. and near south curb of E. Hayes Dr., Elevation = 15.48 Chicago City Datum (CCD).

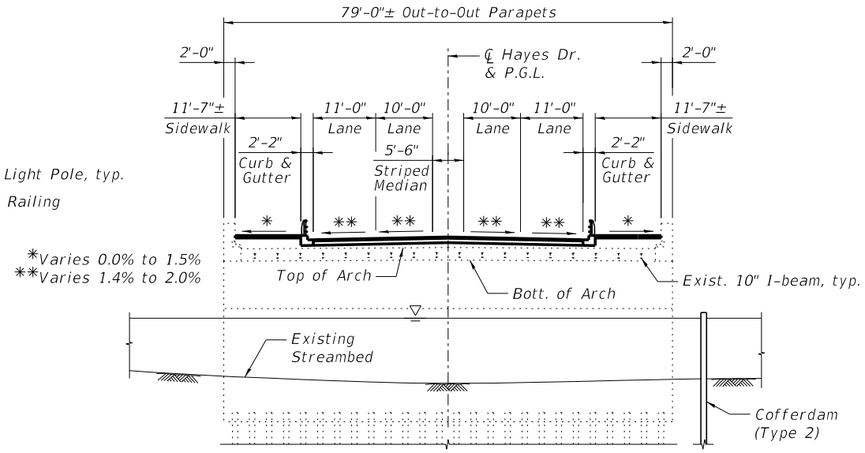
Existing Structure: Hayes Drive over Jackson Park Lagoon is a single span filled spandrel concrete arch bridge, originally built in 1902, carrying two lanes of traffic in the eastbound direction and two lanes of traffic in the westbound direction. The structure has a total length of 180'-0" (end to end of wingwalls) and an overall width of approximately 79'. The length of the clear span is 70'-0".

Traffic to be maintained utilizing staged construction.

No salvage.



ELEVATION
(Looking North)



SECTION A-A
(Looking East)

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44

No future wearing surface allowed.
Maximum height of fill at longitudinal midpoint of bridge is 18" (to top of roadway).

DESIGN STRESSES

FIELD UNITS (New Construction)

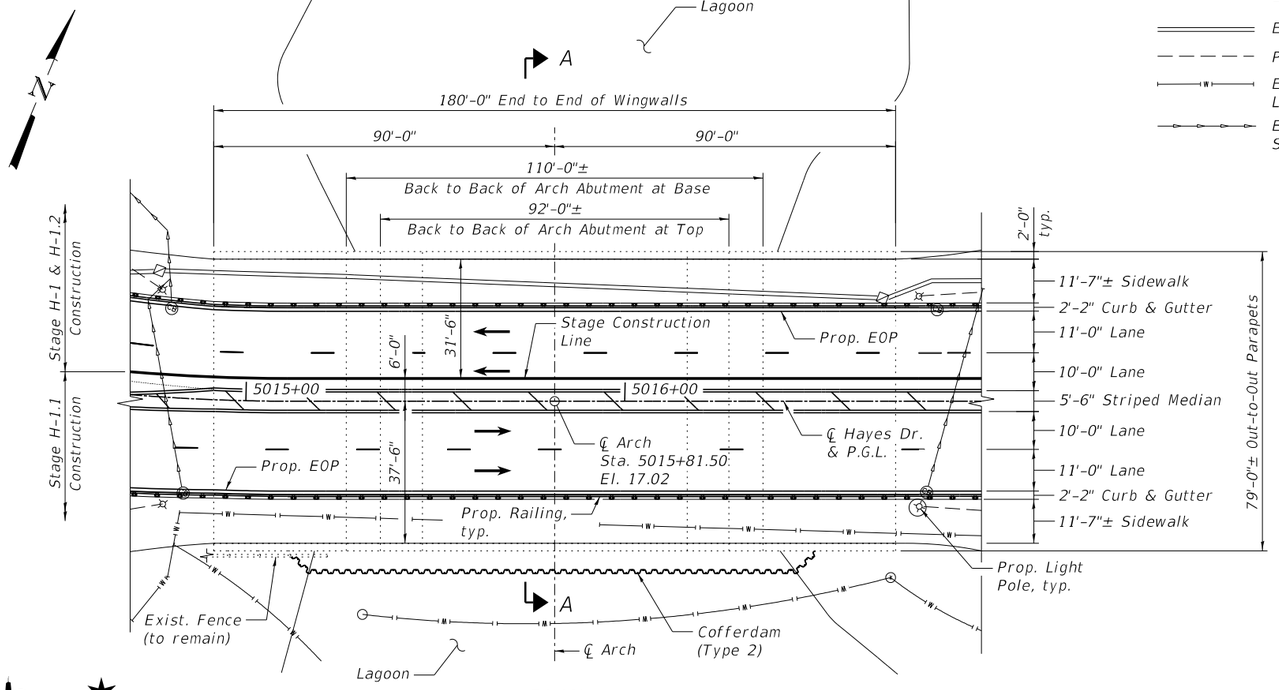
f'c = 3,500 psi (Sidewalk)
f'c = 6,000 psi (Arch)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Cofferdam)

FIELD UNITS (Exist. Construction)

f'c = 3,000 psi
fy = 30,000 psi (Steel)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.5



PLAN

LEGEND

- Existing Lighting Conduit
- Proposed Lighting Conduit
- Existing Underground Lawn Hydrant Water CPD
- Existing Underground Storm Sewer DWM

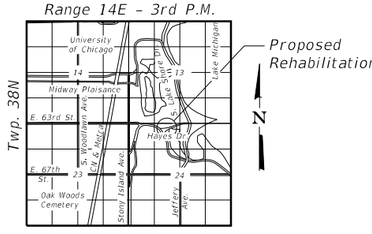
SCOPE OF WORK

1. Mill bituminous overlay, remove concrete sidewalks and excavate fill over the top of existing arch.
2. Install Cofferdam (no seal coat concrete) and dewater underneath existing arch.
3. Structural concrete repair and epoxy crack injection of existing arch.
4. Add spray applied waterproofing membrane system and place compacted backfill.
5. Construct roadway section and HMA surface, concrete curb and gutter and new concrete sidewalks with pedestrian railing adjacent to roadway.
6. Masonry tuckpointing.
7. Remove Cofferdam.

JAMES L. SURBER
081-007741
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

EXPIRATION DATE: 11-30-2022
DATE: 04-02-2020

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
HAYES DRIVE OVER JACKSON PARK LAGOON
F.A.U. 1520 - SEC. 17-B7203-00-ES
COOK COUNTY
STATION 5015+81.50
STRUCTURE NO. 016-6196

CNECT
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FILE NAME = ABC-sht-6196-gpe.dgn	USER NAME = jsurber	DESIGNED - AAY	REVISED -
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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

SHEET NO. SG-1 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1077
CDOT PROJECT NO.	B-7-203	SN 016-6196		
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new consrtuction 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 work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

2. Elevations shall be verified in the field and may be adjusted as directed by the Engineer.

3. The Contractor must make his/her own investigation to determine the existence, nature and exact location of all utility lines and appurtenances within the limits of the project. The Contractor must provide all measures and precautions necessary to protect existing and new utilities.

4. Quantities and limits shown are estimated for bidding purposes only. The actual areas to be repaired and the type(s) of repairs to be used will be determined by the Engineer in the field at the time of construction.

5. Contractor shall not scale dimensions from the contract plans for construction purposes.

6. The north end of the lagoon must be kept dewatered during construction operations until repairs are complete and cofferdam is removed and provisions must be made to prevent the bottom of the north end of the lagoon from freezing or flooding at all times. This work shall be paid for at the contract lump sum price for Dewatering Location #5. See Special Provisions.

7. Granular Backfill for Structures shall be placed per Article 586 of the 2019 Supplemental Specifications except mechanical compaction shall be required per Articles 502 and 205 of the Standard Specifications.

8. See Electrical plans for lighting details.

9. See Civil plans for proposed contours and proposed railing limits and details.

10. Existing painted symbols on inside of parapets for no diving shall not be cleaned off and are to remain.

11. Contractor shall prepare and submit Structural Assessment Reports (SARs) for the proposed work, including removals, on structure to the Engineer for approval before beginning work. See Special Provision for Structural Assessment Reports for Contractor's Means and Methods.

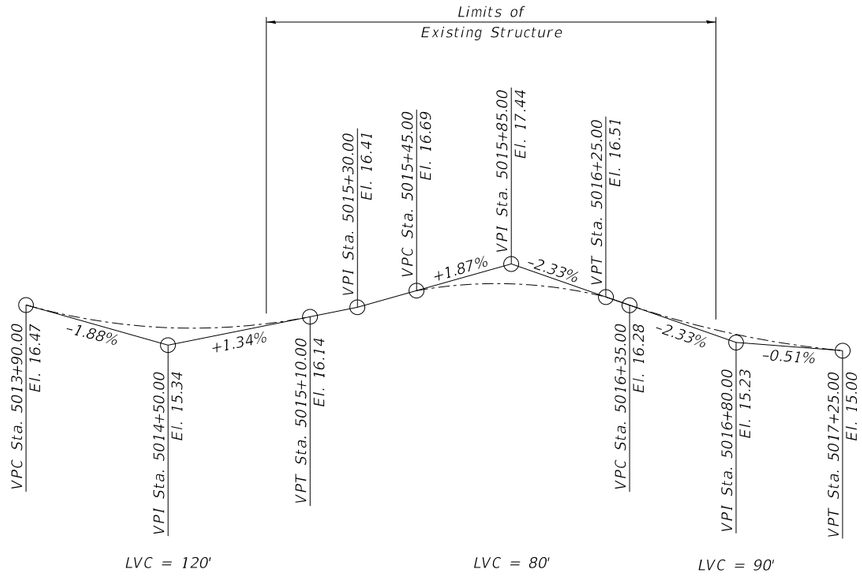
INDEX OF SHEETS

For existing structure plans, see Sheets SGX-1 thru SGX-3 immediately following Sheet SG-8.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	TOTAL
	Structure Excavation	Cu. Yd.	578
	Cofferdam (Type 2) (Location - 3)	Each	1
	Spray Applied Waterproofing Membrane System	Sq. Yd.	689
*	Masonry Cleaning and Tuckpointing	Sq. Yd.	704
	Granular Backfill for Structures	Cu. Yd.	332
*	Epoxy Crack Injection	Foot	205
*	Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	378
*	Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	247
	Dewatering Location #5	L. Sum	1

* The quantity shown is an estimate. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.



PROPOSED PROFILE GRADE

(Along ℄ Hayes Drive)

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GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-6196
SHEET NO. SG-2 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1078
CDOT PROJECT NO.	B-7-203	SN 016-6196		
ILLINOIS FED. AID PROJECT				

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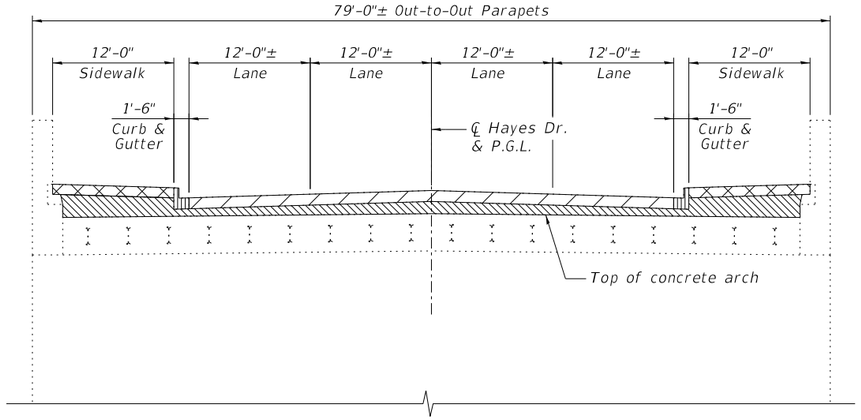
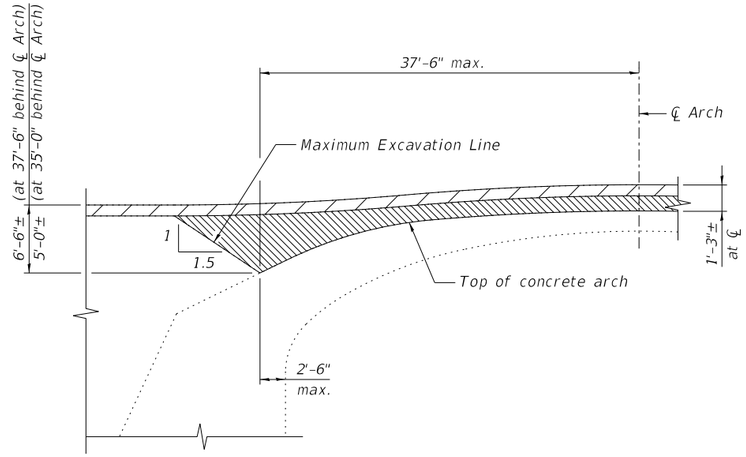
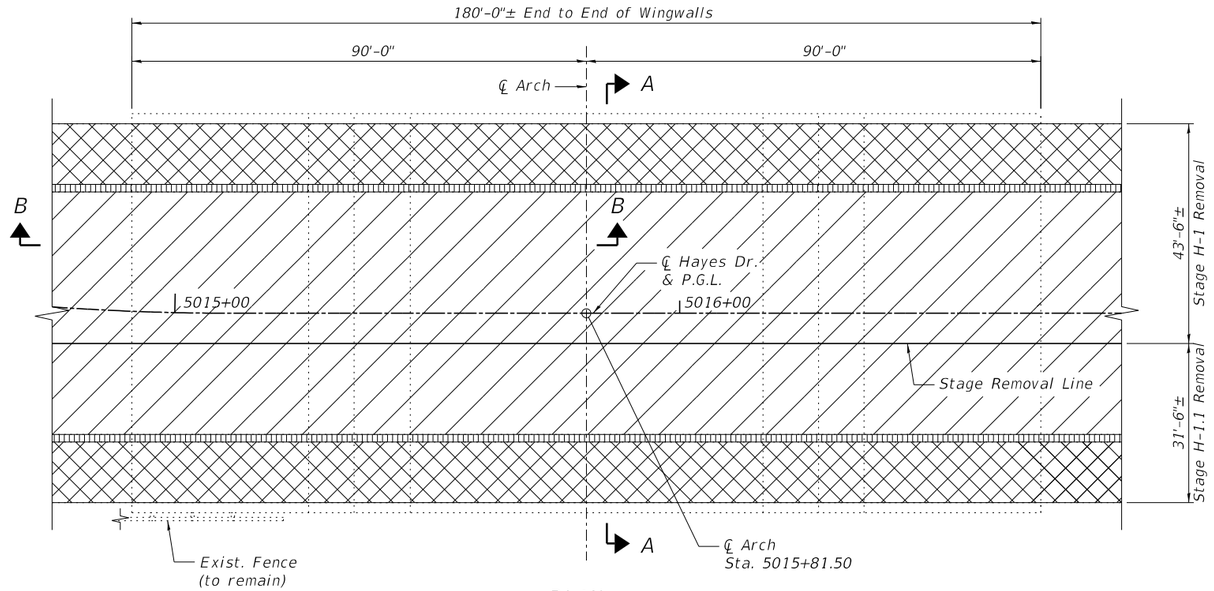


SECTION A-A
(Looking East)



SECTION B-B
(Looking North)



PLAN

LEGEND

- Pavement Removal (Special)
- Combination Curb and Gutter Removal
- Sidewalk Removal
- Structure Excavation

NOTES:

1. See Civil plans for limits and quantities of Pavement Removal (Special), Combination Curb and Gutter Removal and Sidewalk Removal.
2. See Sheet SG-4, Stage Construction Details, for additional details on removal sequence.

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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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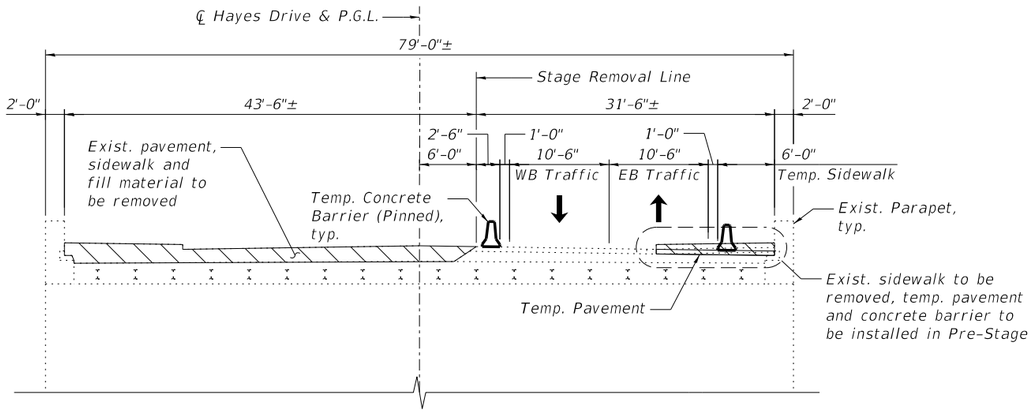
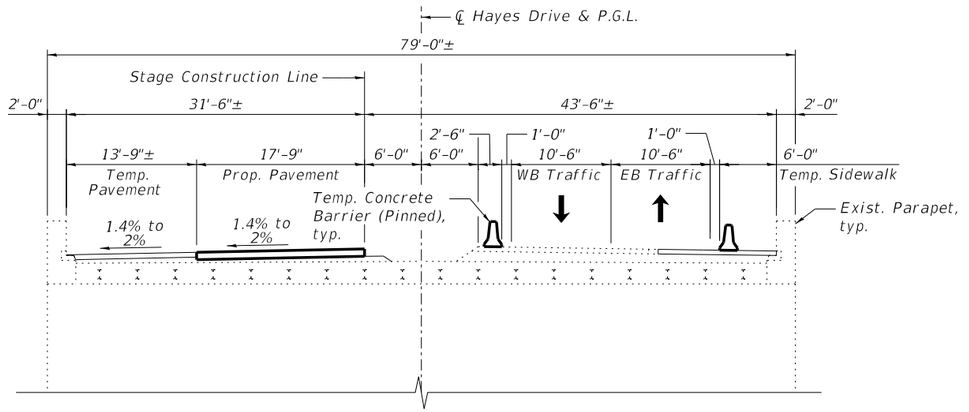
DIVISION OF ENGINEERING

REMOVAL DETAILS
STRUCTURE NO. 016-6196
SHEET NO. SG-3 OF 8 SHEETS

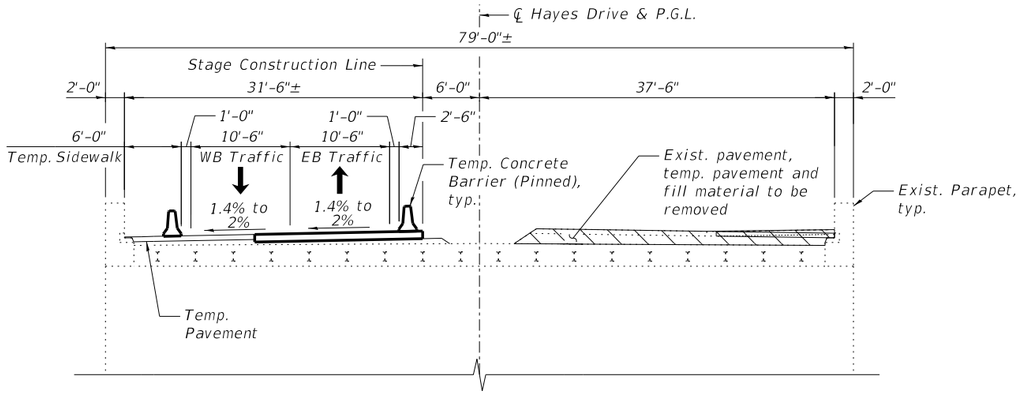
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1079
CDOT PROJECT NO.	B-7-203	SN 016-6196		
ILLINOIS	FED. AID PROJECT			



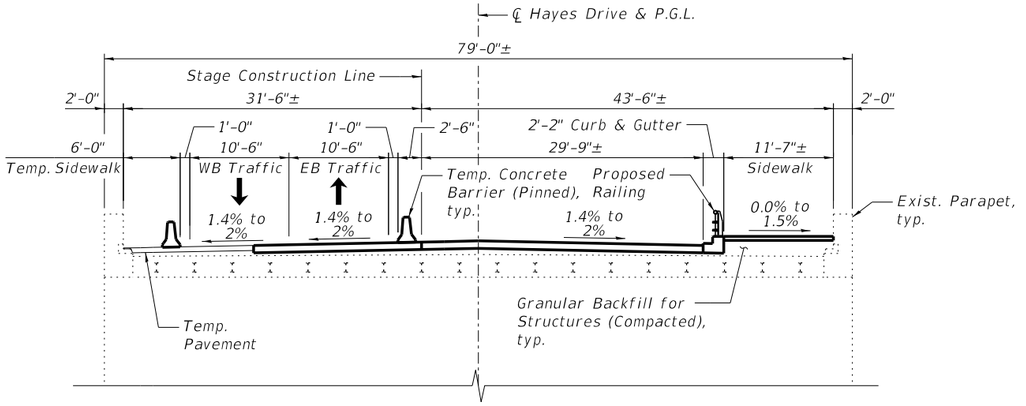
STAGE H-1 REMOVAL
(Looking East)



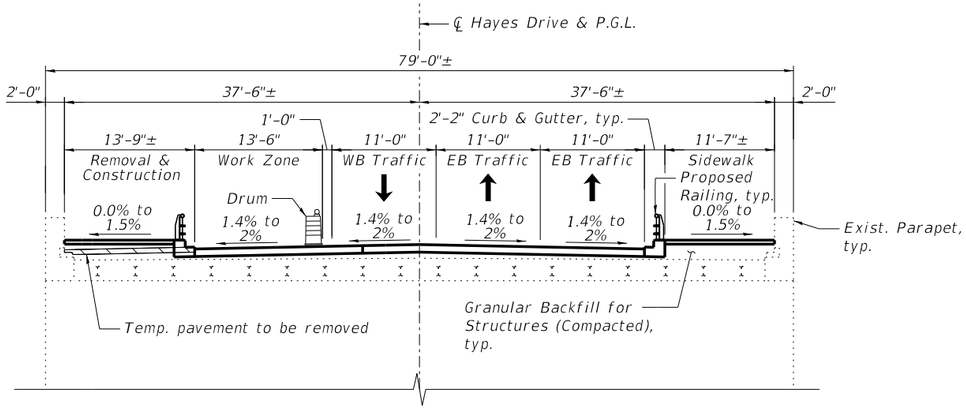
STAGE H-1 CONSTRUCTION
(Looking East)



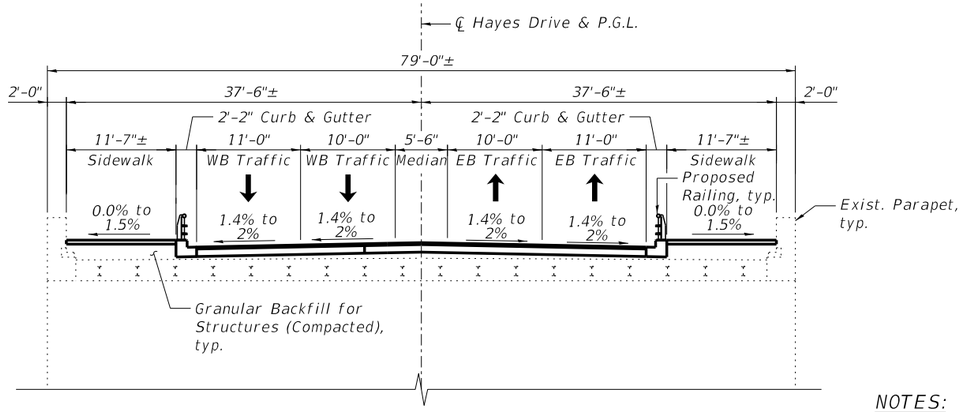
STAGE H-1.1 REMOVAL
(Looking East)



STAGE H-1.1 CONSTRUCTION
(Looking East)



STAGE H-1.2 REMOVAL & CONSTRUCTION
(Looking East)



FINAL CONDITION
(Looking East)

NOTES:

1. All excavation and backfill lines shown at minimum slope of 1.5(H):1.0(V).
2. See Civil plans for proposed roadway details across the bridge as well as proposed railing limits and details.

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DIVISION OF ENGINEERING

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-6196
SHEET NO. SG-4 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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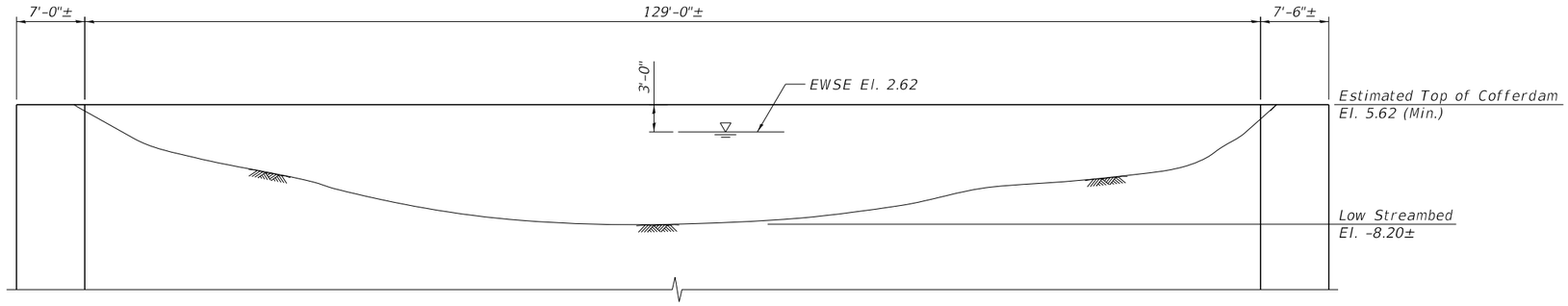
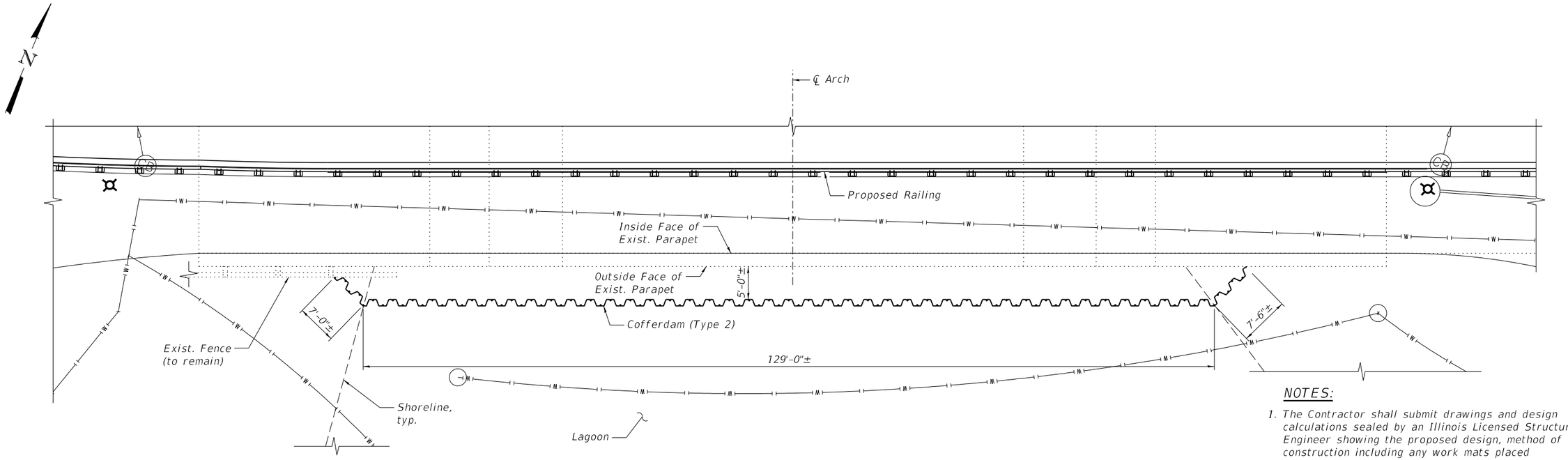
CDOT PROJECT NO.	B-7-203	SN 016-6196		
	ILLINOIS FED. AID PROJECT			



ELEVATION
(Looking North)



PLAN

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Cofferdam (Type 2) (Location - 3)	Each	1
Dewatering Location #5	L. Sum	1

NOTES:

1. The Contractor shall submit drawings and design calculations sealed by an Illinois Licensed Structural Engineer showing the proposed design, method of construction including any work mats placed underneath and around the arch, dewatering plan, removal, as well as other details left open to choice or not fully detailed on the plans to the Engineer for review and approval prior to starting construction. No seal coat concrete shall be installed.
2. Existing utility locations to be field verified prior to design, approval and installation of Cofferdam.
3. Existing streambed elevations along the length of Cofferdam shall be field verified prior to design, approval and installation of Cofferdam.

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

COFFERDAM DETAILS
STRUCTURE NO. 016-6196
SHEET NO. SG-5 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1081
	CDOT PROJECT NO. B-7-203		SN 016-6196	
	ILLINOIS FED. AID PROJECT			

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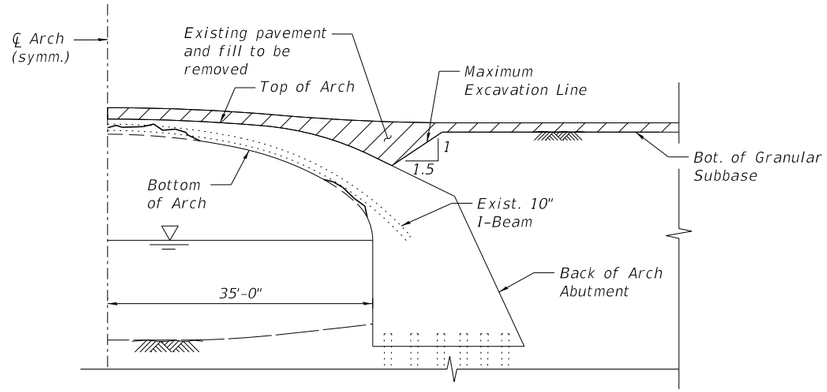
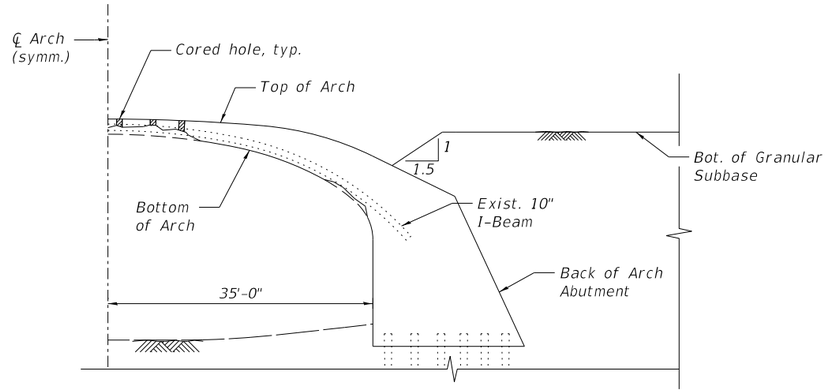
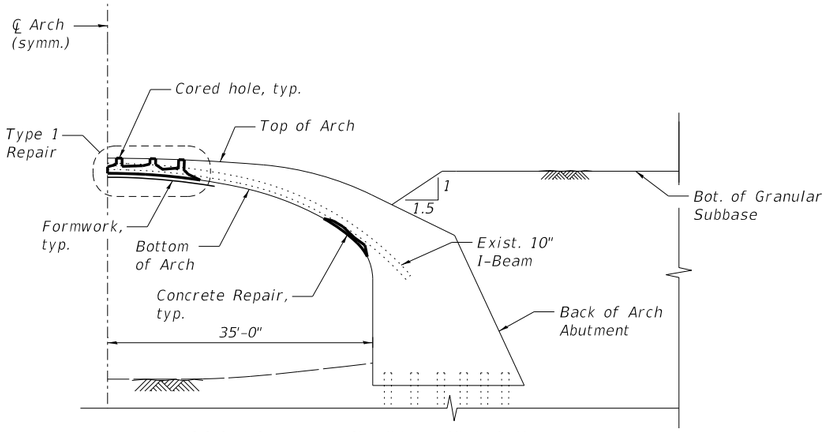


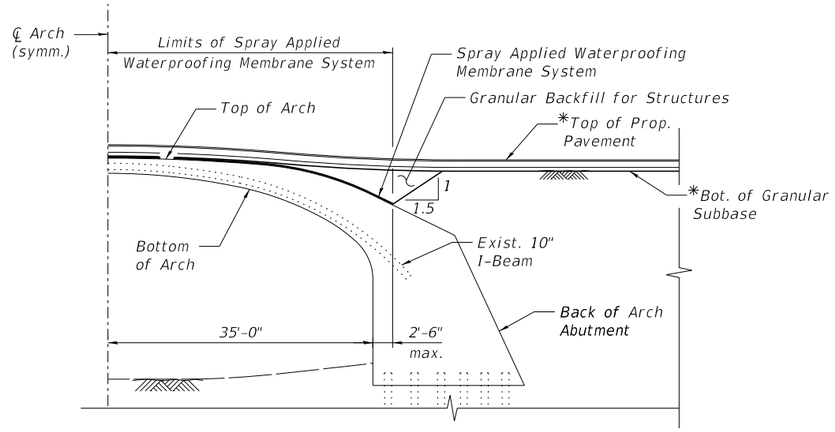
PARTIAL ELEVATION – STEP 1
(Looking North)



PARTIAL ELEVATION – STEP 2
(Looking North)



PARTIAL ELEVATION – STEP 3
(Looking North)



PARTIAL ELEVATION – STEPS 4 AND 5
(Looking North)

SUGGESTED ARCH REPAIR SEQUENCE

STEP 1:

1-1. Remove curb and sidewalk on south side of bridge.
1-2. Install temporary pavement and temporary concrete barrier along south edge of bridge and approaches.
1-3. Shift traffic to Stage H-1 configuration.
1-4. Remove existing pavement and fill on north side of bridge.
1-5. Install cofferdam and dewater underneath existing arch.

STEP 2:

2-1. Sound concrete and remove loose or delaminated concrete in face of abutment and bottom of arch.
2-2. Apply corrosion inhibitor to any exposed steel (See Note 2).
2-3. Core a minimum of three holes through the top of arch in each Type 1 repair area (see Type 1 Repair Detail this sheet).

STEP 3:

3-1. Install formwork on bottom of arch in areas of Type 1 repairs.
3-2. Inject grout or self-consolidating concrete into the cored holes for the Type 1 repairs.
3-3. Apply shotcrete in areas of typical shallow repairs on bottom of arch.
3-4. Perform concrete repairs to face of abutments based on depth of repair required.

STEP 4:

4-1. Remove formwork from underside of arch.
4-2. Install spray applied waterproofing membrane system over the top of arch and inside face of parapet base (see Waterproofing Detail on Sheet SG-7).

STEP 5:

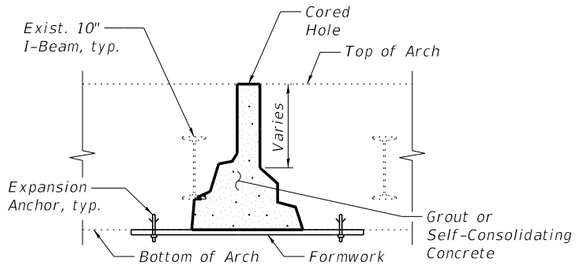
5-1. Backfill over the arch with Granular Backfill for Structures.
5-2. Install new pavement along north side of bridge and approaches.

STEP 6:

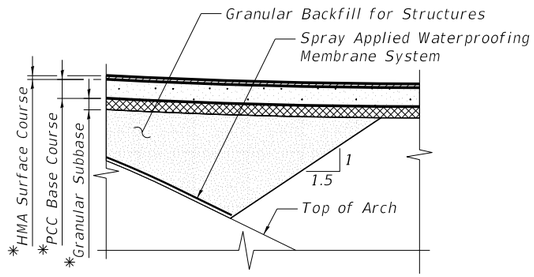
6-1. Repeat Steps 1 thru 5 for repairs to the south side of bridge.
6-2. Remove temporary pavement.
6-3. Install roadway, curb and sidewalks with railings.

NOTES:

1. Type 1 repairs will be per the Special Provision for "Structural Repair of Concrete" and per the plan details and will be paid for as Structural Repair of Concrete (Depth Greater Than 5 Inches). Formed concrete repairs with cored holes above shall be allowed for Type 1 overhead repairs.
2. Corrosion inhibitor shall be submitted to the Engineer for review and approval prior to application. Cost included with Structural Repair of Concrete pay item for the applicable depth.
3. See Sheets SG-7 and SG-8 for anticipated locations of arch and abutment repairs.
4. See Sheet SG-7 for detail of Spray Applied Waterproofing Membrane System.

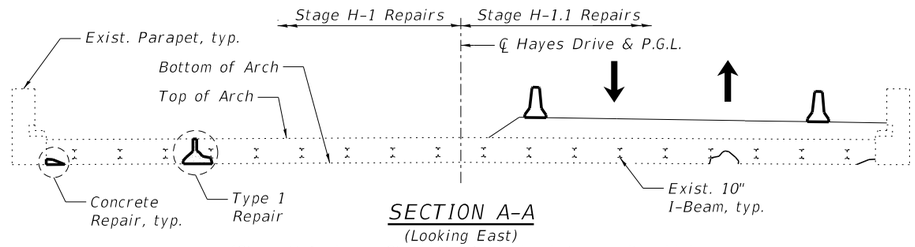


TYPE 1 REPAIR DETAIL
(Looking East through Arch)



BACKFILL DETAIL
(Looking North)

*See Civil plans for limits and quantities. Full depth pavement section over top of existing arch may not be possible due to existing field conditions. See Civil plans for alternate details.



SECTION A-A
(Looking East)
(Stage H-1 shown, Stage H-1.1 similar but opposite side)

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

REPAIR DETAILS (1 OF 3)
STRUCTURE NO. 016-6196
SHEET NO. SG-6 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1082
CDOT PROJECT NO.	B-7-203	SN 016-6196		
ILLINOIS FED. AID PROJECT				

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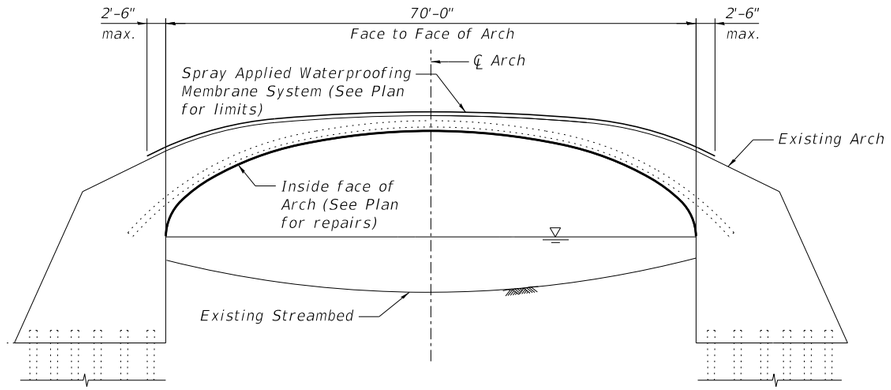
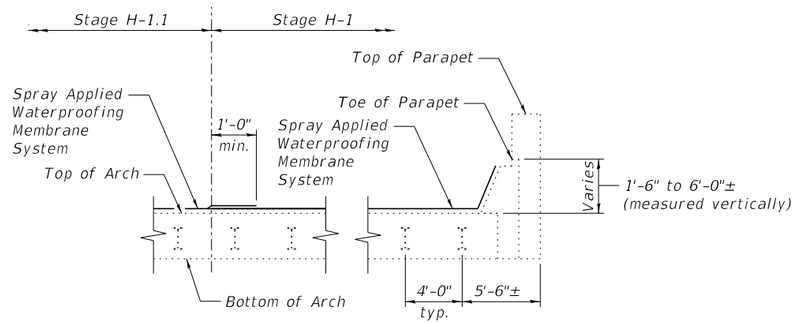
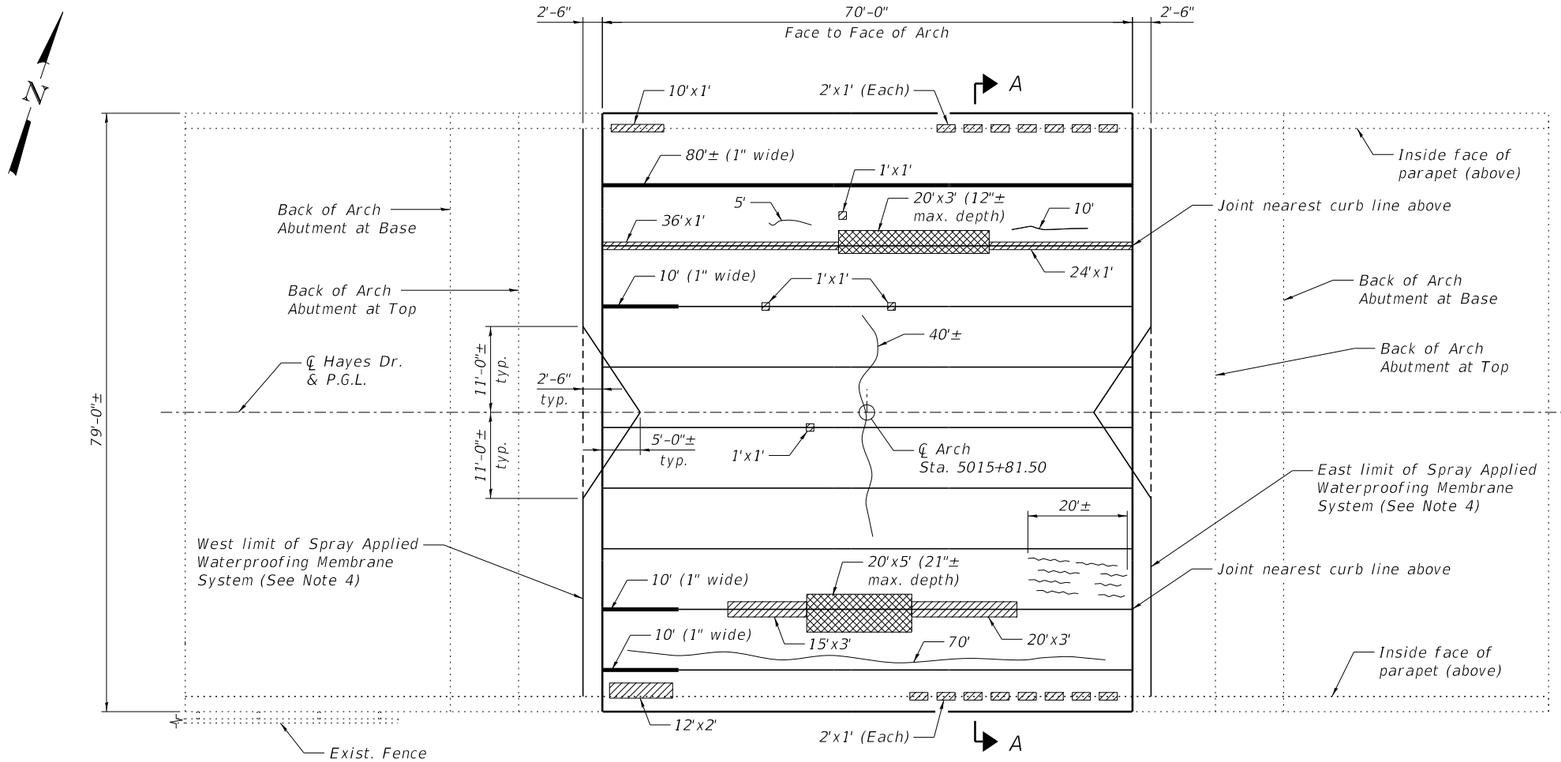


ARCH ELEVATION
(Looking North)



WATERPROOFING DETAIL



PLAN - INSIDE FACE OF ARCH SURFACE
(Spray Applied Waterproofing Membrane System on top of arch)

BILL OF MATERIAL

	ITEM	UNIT	TOTAL
	Spray Applied Waterproofing Membrane System	Sq. Yd.	689
*	Epoxy Crack Injection	Foot	205
*	Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	243
*	Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	160

* The quantity shown is an estimate. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.

LEGEND

- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
- Type 1 Repairs (Paid for as Structural Repair of Concrete (Depth Greater Than 5 Inches))
- Deteriorated Joint (width varies) (Paid for as Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches))
- Epoxy Crack Injection

NOTES:

1. Type 1 repairs will be per the Special Provision for "Structural Repair of Concrete" and per the plan details and will be paid for as Structural Repair of Concrete (Depth Greater Than 5 Inches). Formed concrete repairs with cored holes above shall be allowed for Type 1 overhead repairs.
2. See Sheet SG-6 for Section A-A.
3. Bridge dimensions based on existing survey. Dimensions shall be field verified during construction.
4. Limits of Spray Applied Waterproofing Membrane shall extend 2'-6" past the face of arch to the extent possible while maintaining minimum excavation slopes of 1.5(H):1.0(V). The dashed line represents the full desired area to receive waterproofing as allowed by field conditions and as directed by the Engineer. Quantity includes the full area.

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

REPAIR DETAILS (2 OF 3)
STRUCTURE NO. 016-6196
SHEET NO. SG-7 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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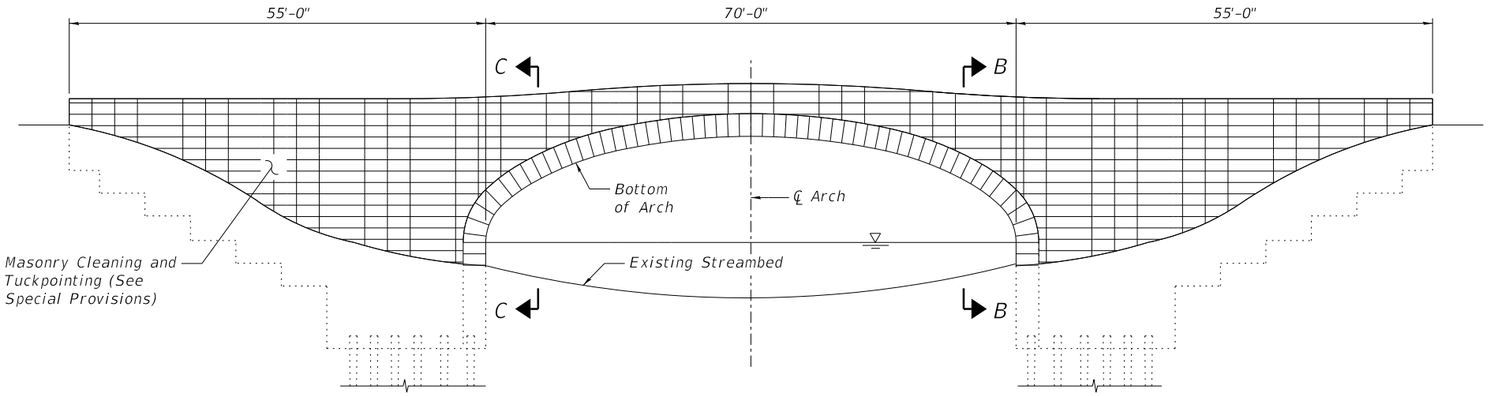
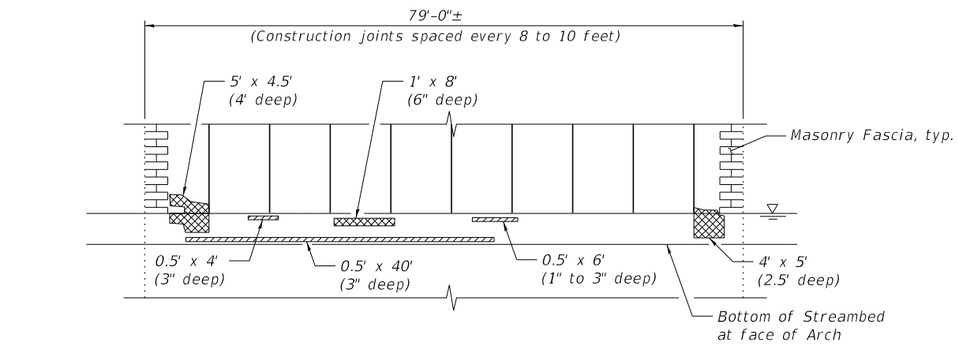
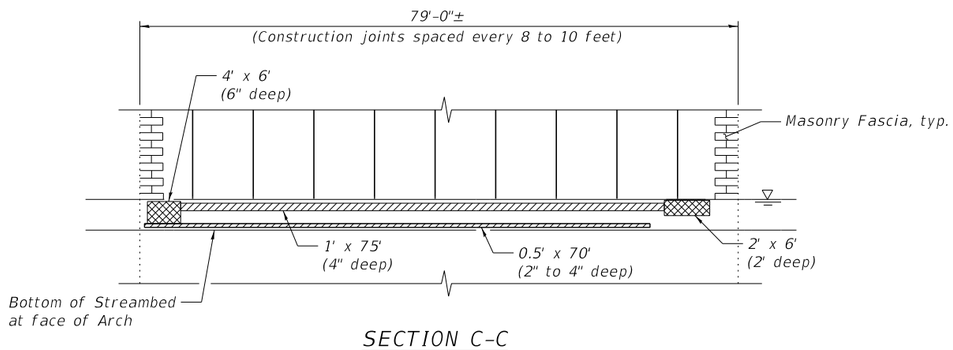
CDOT PROJECT NO. B-7-203		SN 016-6196		
	ILLINOIS FED. AID PROJECT			



ELEVATION
(Looking North)
(Existing Fence at southwest wingwall not shown for clarity)



SECTION B-B
(East Abutment Elevation Looking East)



SECTION C-C
(West Abutment Elevation Looking West)

BILL OF MATERIAL

	ITEM	UNIT	TOTAL
*	Masonry Cleaning and Tuckpointing	Sq. Yd.	704
*	Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	135
*	Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	87

*The quantity shown is an estimate. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.

LEGEND

Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

Structural Repair of Concrete (Depth Greater Than 5 Inches)

NOTES:

1. See Special Provision for Masonry Cleaning and Tuckpointing.
2. See Special Provision for Structural Repair of Concrete.

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DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

REPAIR DETAILS (3 OF 3)
STRUCTURE NO. 016-6196
SHEET NO. SG-8 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1084
CDOT PROJECT NO. B-7-203		SN 016-6196		
	ILLINOIS FED. AID PROJECT			

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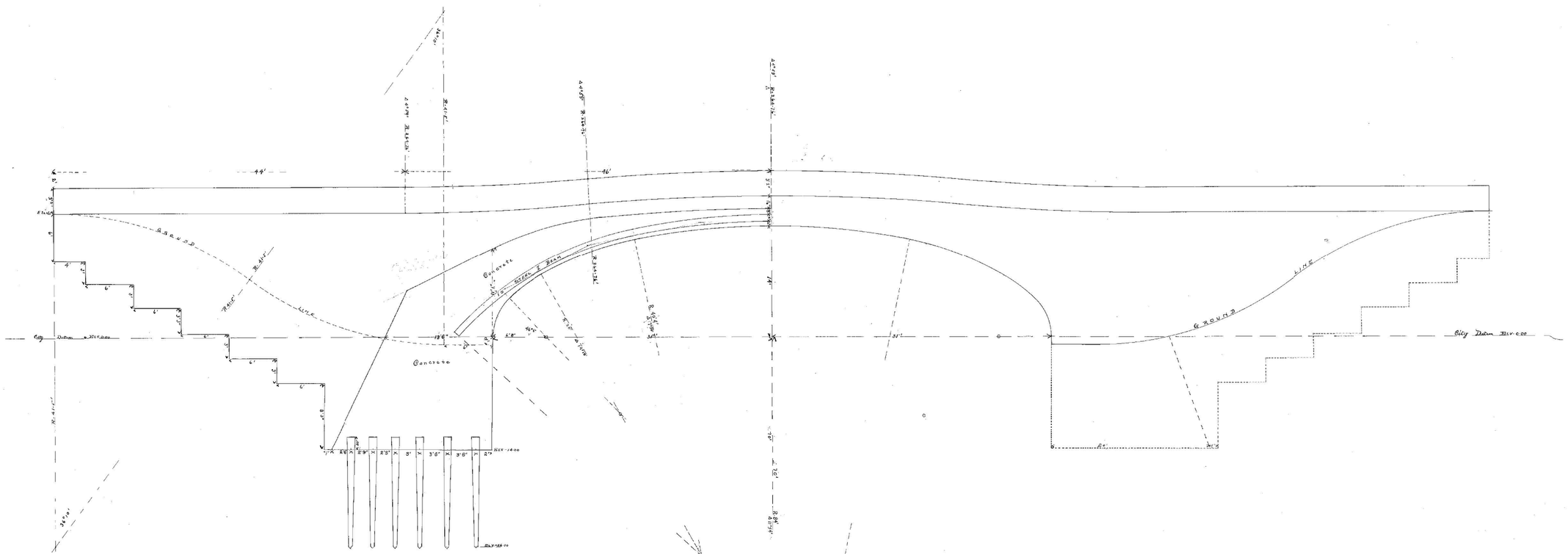
PLAN FOR ~~SOUTH~~ MIDDLE LAGOON BRIDGE (61)?

SOUTH PARK COMMISSIONERS
CHICAGO

SHEET NO. 1



SECTION & ELEVATION.
Scale 1"=4'.

255

FILE L19-104-8

DRWG. 45621 FILE NO. 11-055-1

166195000!

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (1 OF 3)
STRUCTURE NO. 016-6196
SHEET NO. SGX-1 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS	FED. AID PROJECT			

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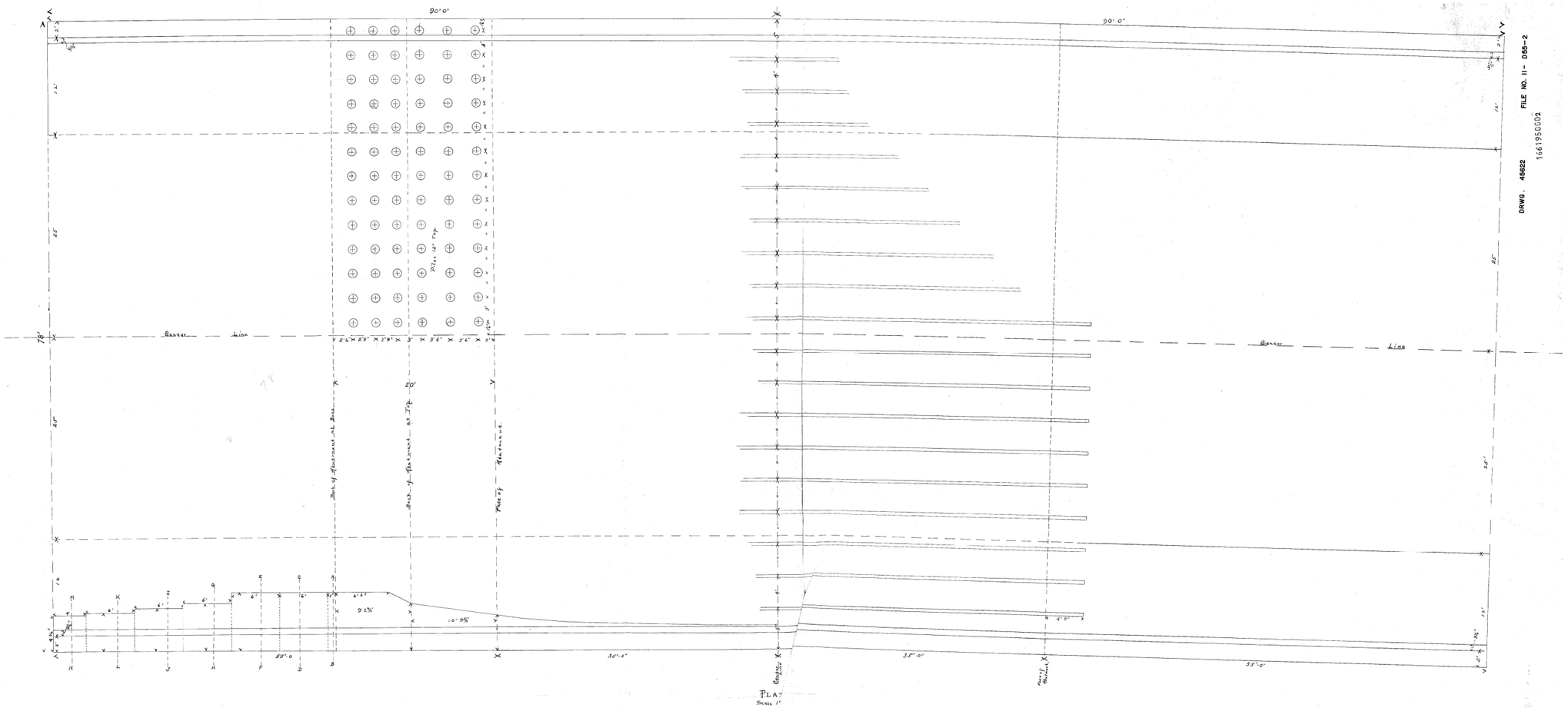

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FILE NO. II-055-2
16619500D2

DRWG. 45622
FILE NO. II-055-2
FILE L 19-1048

SHEET NO. 2

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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORATION
DIVISION OF ENGINEERING

EXISTING PLANS (2 OF 3)
STRUCTURE NO. 016-6196
SHEET NO. SGX-2 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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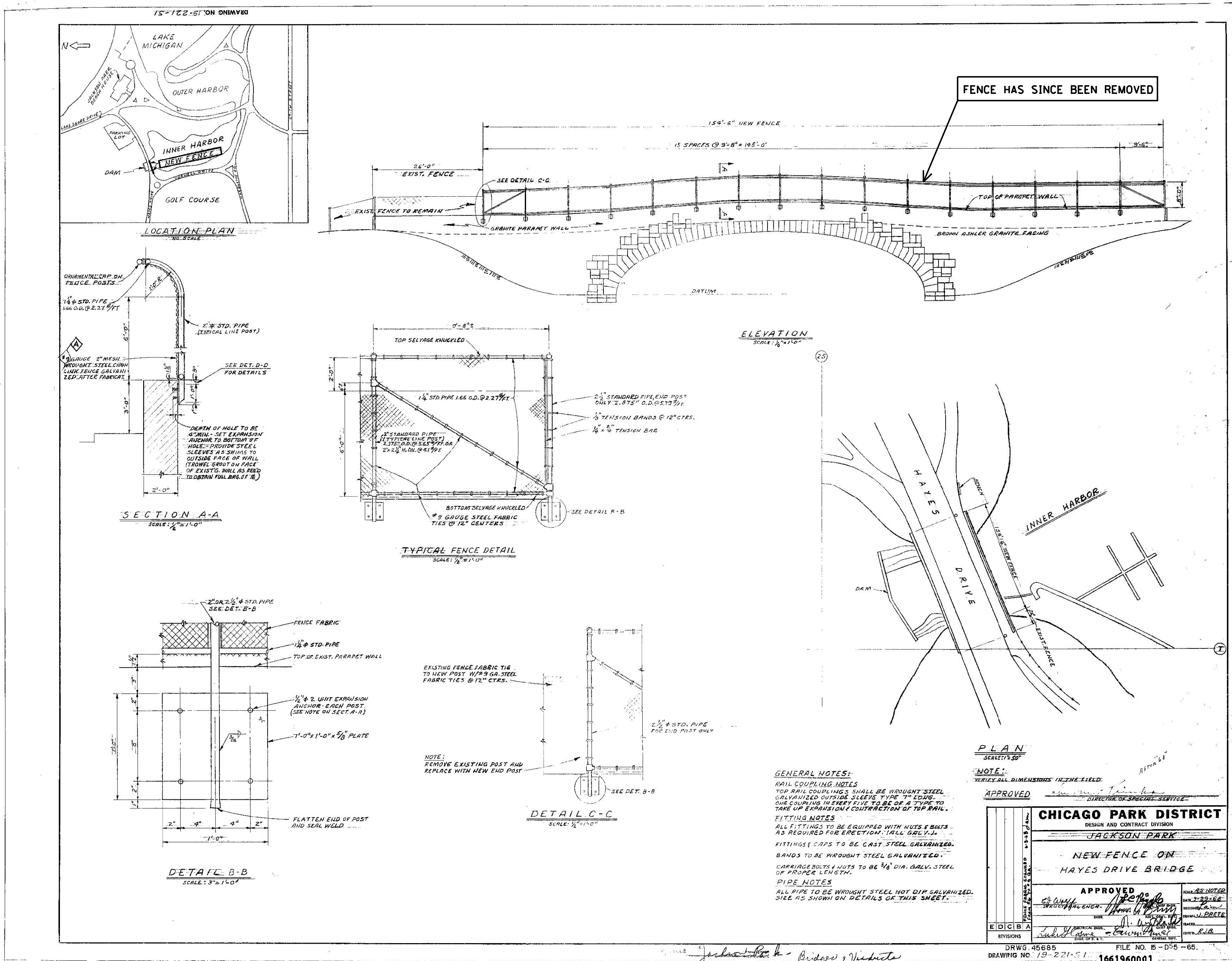

DRAWING NO. 19-221-51
LAKE MICHIGAN
OUTER HARBOR
INNER HARBOR
NEW FENCE
DAM
GOLF COURSE
LOCATION PLAN
NO SCALE
FENCE HAS SINCE BEEN REMOVED
159'-6" NEW FENCE
15 SPACES @ 9'-8" = 145'-0"
26'-0" EXIST. FENCE
SEE DETAIL C-C
EXIST. FENCE TO REMAIN
GRANITE PARAPET WALL
TOP OF PARAPET WALL
BROWN ASHLER GRANITE FACING
DATUM
ELEVATION
SCALE: 1/8"=1'-0"
ORNAMENTAL CAP ON FENCE POSTS
SEE DET. D-D FOR DETAILS
SECTION A-A
SCALE: 1/2"=1'-0"
TOP SELVAGE KNUCKLED
BOTTOM SELVAGE KNUCKLED
#9 GAUGE STEEL FABRIC TIES @ 12" CENTERS
SEE DETAIL B-B
TYPICAL FENCE DETAIL
SCALE: 1/2"=1'-0"
HAYES DRIVE
INNER HARBOR
DAM
EXIST. FENCE
PLAN
SCALE: 1"=50'
FENCE FABRIC
TOP OF EXIST. PARAPET WALL
FLATTEN END OF POST AND SEAL WELD
DETAIL B-B
SCALE: 3"=1'-0"
EXISTING FENCE FABRIC TIE TO NEW POST W/ #9 GA. STEEL FABRIC TIES @ 12" CTRS.
NOTE: REMOVE EXISTING POST AND REPLACE WITH NEW END POST
SEE DET. B-B
DETAIL C-C
SCALE: 1/2"=1'-0"
GENERAL NOTES:
RAIL COUPLING NOTES
TOP RAIL COUPLINGS SHALL BE WROUGHT STEEL GALVANIZED OUTSIDE SLEEVE TYPE 7" LONG. ONE COUPLING IN EVERY FIVE TO BE OF A TYPE TO TAKE UP EXPANSION & CONTRACTION OF TOP RAIL.
FITTING NOTES
ALL FITTINGS TO BE EQUIPPED WITH NUTS & BOLTS AS REQUIRED FOR ERECTION. (ALL GALV.).
FITTINGS & CAPS TO BE CAST STEEL GALVANIZED.
BANDS TO BE WROUGHT STEEL GALVANIZED.
CARRIAGE BOLTS & NUTS TO BE 3/8" DIA. GALV. STEEL OF PROPER LENGTH.
PIPE NOTES
ALL PIPE TO BE WROUGHT STEEL HOT DIP GALVANIZED. SIZE AS SHOWN ON DETAILS OF THIS SHEET.
NOTE:
VERIFY ALL DIMENSIONS IN THE FIELD
APPROVED
DIRECTOR OF SPECIAL SERVICE
CHICAGO PARK DISTRICT
DESIGN AND CONTRACT DIVISION
JACKSON PARK
NEW FENCE ON
HAYES DRIVE BRIDGE
APPROVED
STRUCTURAL ENGR.
ENGR.
ELECTRICAL ENGR.
ENGR. OF D. & C.
CHIEF ENGR.
GENERAL SUPT.
SCALE AS NOTED
DATE 3-29-68
DRAWN J. PRETE
CHEC'D R.J.B.
REVISIONS
E D C B A
DRWG. 45685
DRAWING NO. 19-221-51
FILE NO. 15-D55-65.
1661960001

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ABC-sht-6196ex-003.dgn		CHECKED - JLS	REVISED -		
	PLOT SCALE =	DRAWN - RMG	REVISED -		
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -		SHEET NO. SGX-3 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1087
CDOT PROJECT NO. B-7-203		SN 016-6196		
	ILLINOIS	FED. AID PROJECT		

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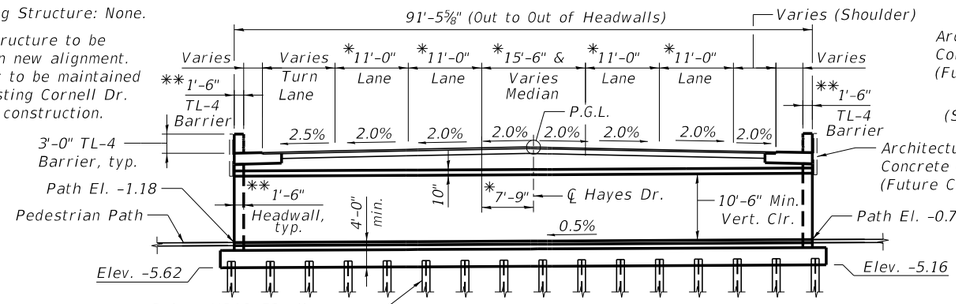
Bench Mark:
Cut square at center of west side of transformer pad about 350' east of Cornell Dr. on north side of 63rd St. and east of driveway north to parking lot. Elevation = 7.51 Chicago City Datum (CCD).

Existing Structure: None.

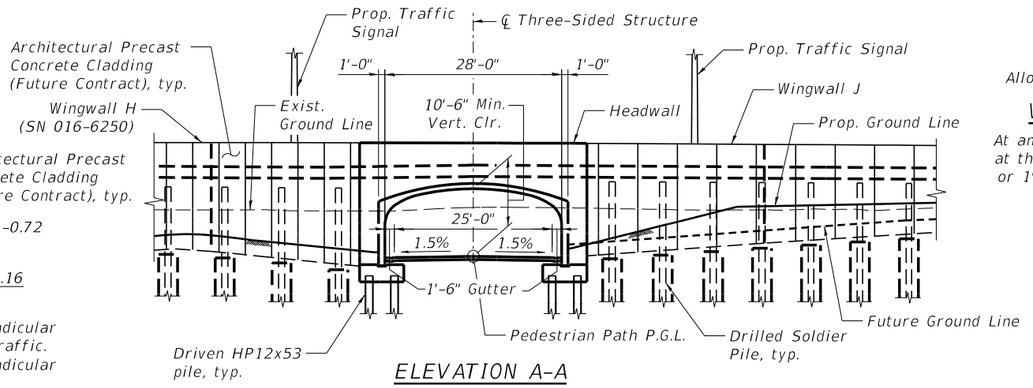
New structure to be built on new alignment. Traffic to be maintained on existing Cornell Dr. during construction.



LONGITUDINAL SECTION

(Along East Wall of Three-Sided Structure, Looking East)

*Measured perpendicular to direction of traffic.
**Measured perpendicular to headwall.



ELEVATION A-A

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

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

WALL DEFLECTION CRITERIA

At any location maximum total lateral deflection at the top of the wall shall not exceed 1.0 inch or 1% exposed height of the wall whichever is minimum.

DESIGN STRESSES

FIELD UNITS

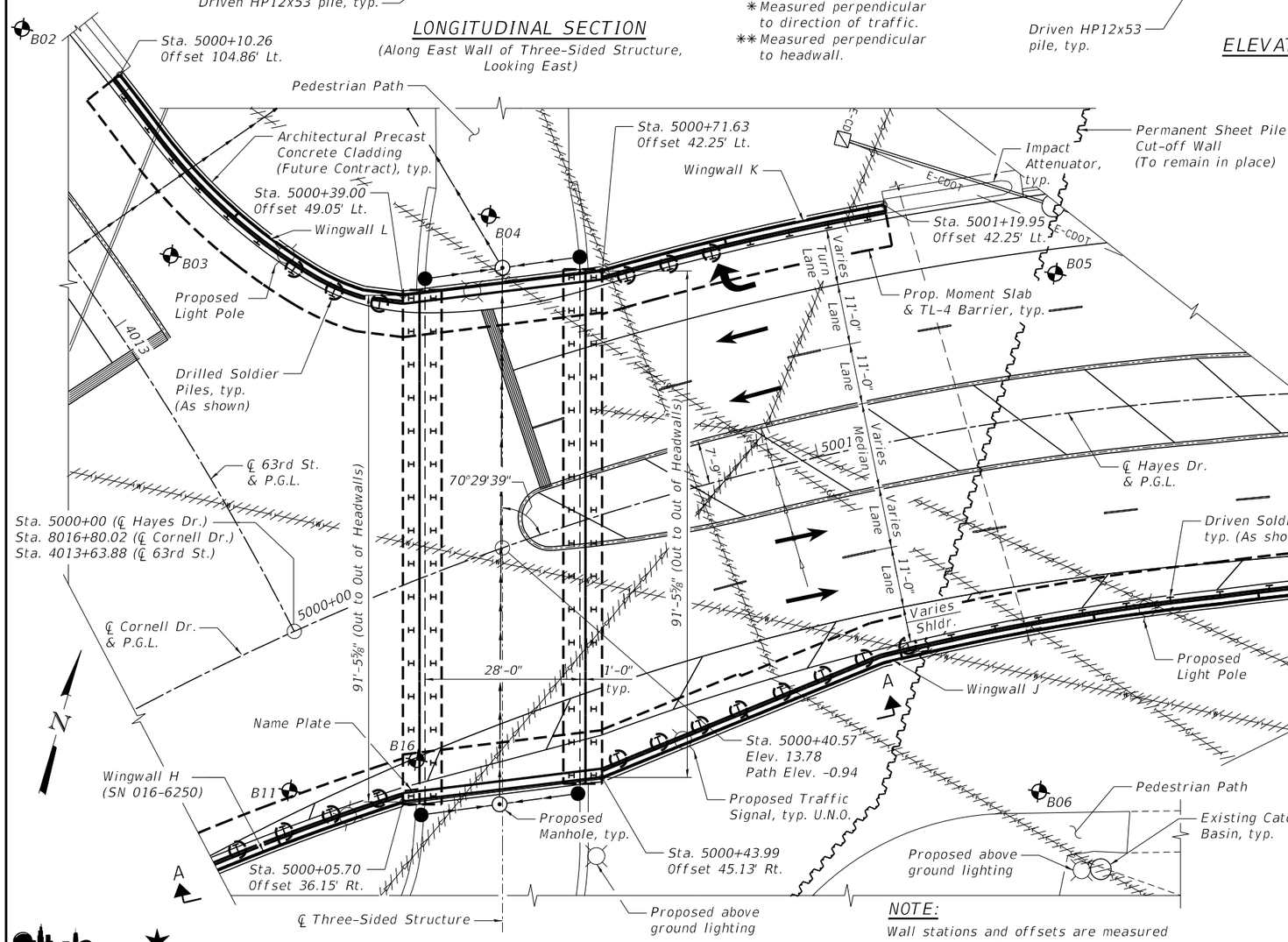
f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)

SEISMIC DATA

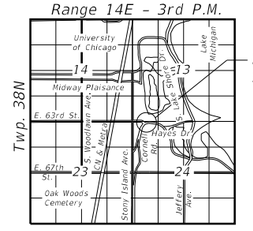
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec (SD_1) = 0.062g
Design Spectral Acceleration at 0.2 sec (SD_S) = 0.110g
Soil Site Class = C



PLAN

LEGEND

- Soil Boring
- Existing Combined Sewer (CPD) (To remain)
- Existing Combined Sewer (CPD) (To be removed)
- Existing Storm Sewer (CPD) (To remain)
- Existing Storm Sewer (CPD) (To be removed)
- E-CDOT — Existing Electrical (CDOT)
- Existing Gas (To be removed)
- Existing Lighting Conduit
- Existing Traffic Signal Conduit
- Existing Water (CPD) (To be removed)
- Proposed Conduit CDOT
- Proposed Storm Sewer



LOCATION SKETCH

JAMES L. SURBER
081-007741
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

EXPIRATION DATE: 11-30-2022
DATE: 04-02-2020

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.

NOTE:

Wall stations and offsets are measured from ℄ Hayes Dr. to front face of cast-in-place wall (not including architectural precast concrete cladding).

GENERAL PLAN AND ELEVATION
UNDERPASS AT HAYES DRIVE
F.A.U. 1520 - SEC. 17-B7203-00-ES
COOK COUNTY
STATION 5000+40.57
STRUCTURE NO. 016-6291

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	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SHEET NO. SH-1 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.

2. No field welding is permitted except as specified in the contract documents.

3. The foundation design is based on the following maximum factored reactions applied at the top of each of the H-piles:

   165 kips (vertical), 12 kips (horizontal)

   The contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete foundation design with calculations, details, and the required seals shall be submitted for review and approval.

4. The contractor shall furnish all tools, materials and equipment necessary to ensure that the precast units do not incur cracking while being transported to and from the project site, stored during construction and when being installed.

5. Protective Concrete Sealer shall be applied to the entire top surface and inside vertical face of proposed barrier along with the entire top surface of the exposed gutter of the proposed moment slab. All surfaces to be sealed shall be cleaned thoroughly prior to Protective Concrete Sealer application. See Special Provisions.

6. The Contractor must make his/her own investigation to determine the existence, nature and exact location of all utility lines and appurtenances within the limits of the project. The Contractor must provide all measures and precautions necessary to protect existing and new utilities.

7. Groundwater information at this location is included in the geotechnical report. All excavation for structures must be kept dewatered during construction operations until backfill is in place and provisions must be made to prevent the bottom of all excavations from freezing or flooding at all times. This work shall be paid for at the contract lump sum price for Dewatering Location #6. See Special Provisions.

8. Granular Backfill for Structures shall be placed per Article 586 of the 2019 Supplemental Specifications except mechanical compaction shall be required per Articles 502 and 205 of the Standard Specifications.

9. All structural steel shall be AASHTO M270 Grade 50.

10. The Contractor is responsible for the design and performance of the lagging using no less than a 3" nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.

11. Architectural Precast Concrete Cladding is shown for reference only. Architectural Precast Concrete Cladding will be furnished and erected under a separate contract.

12. Slipforming of the barrier is not allowed.

13. See Traffic Signals and Electrical plans for traffic signal and lighting details.

14. See Drainage plans for drainage details.

15. See Civil plans for proposed contours and for proposed pedestrian path profile grade.

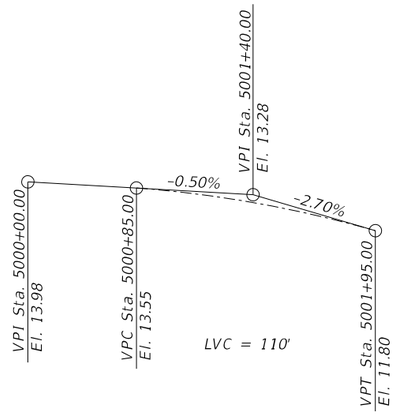
16. All reinforcement shall have 1½" of clear cover unless otherwise shown or noted. Clear cover shall be 3" for bottom surfaces formed against earth.

17. Proposed Retaining Walls and Moment Slab are designed for an 86 pcf max. equivalent fluid soil pressure, 240 psf of live load surcharge, MASH TL-4 barrier criteria, and a maximum architectural precast concrete cladding weight of 75 psf.

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

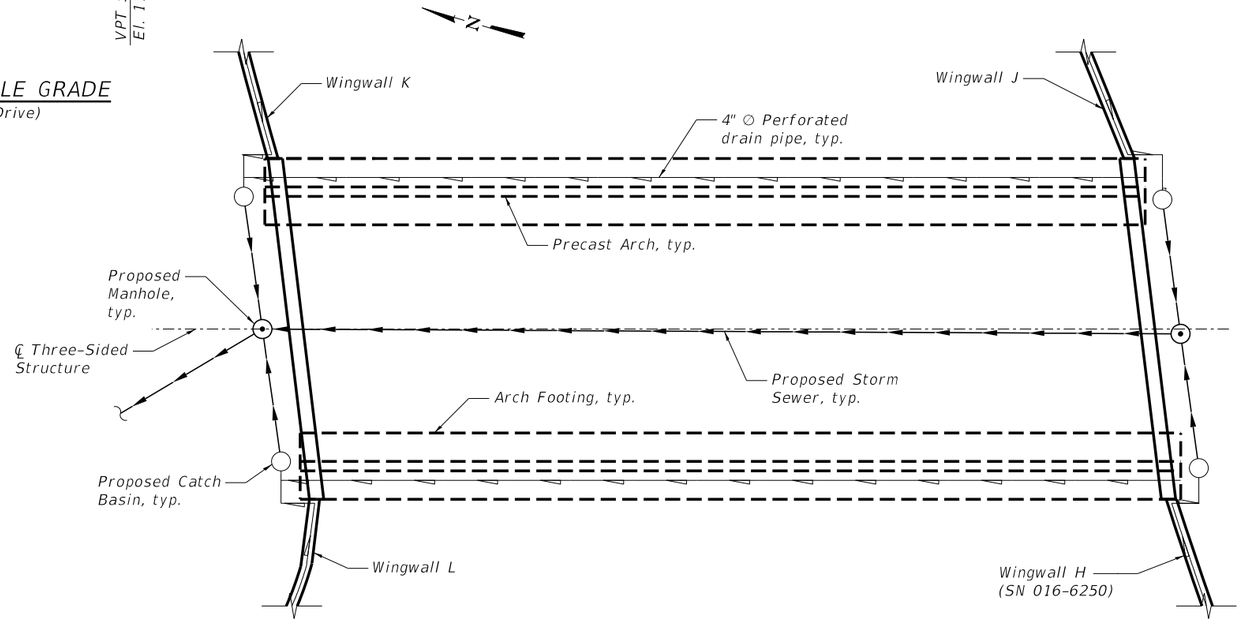
ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	5,320
High Performance Concrete Structures	Cu. Yd.	442.9
Protective Concrete Sealer	Sq. Yd.	276
Stud Shear Connectors	Each	884
Reinforcement Bars, Epoxy Coated	Pound	68,290
Furnishing Steel Piles HP12x53	Foot	2,790
Driving Piles	Foot	2,790
Test Pile Steel HP12x53	Each	2
Pile Shoes	Each	88
Name Plates	Each	1
Furnishing Soldier Piles (HP Section)	Foot	688
Furnishing Soldier Piles (W Section)	Foot	519
Driving Soldier Piles	Foot	688
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	2,609
Untreated Timber Lagging	Sq. Ft.	1,856
Membrane Waterproofing System for Buried Structures	Sq. Yd.	534
Geocomposite Wall Drain	Sq. Yd.	758
Granular Backfill for Structures	Cu. Yd.	731
Three-Sided Precast Concrete Structures 28'x13'	Foot	92
Pipe Underdrains for Structures, 4"	Foot	518
Dewatering Location #6	L. Sum	0.5



PROPOSED PROFILE GRADE
(Along ℄ Hayes Drive)

NOTES:

1. See Sheets SH-8 to SH-12 for pipe underdrain layout along wingwalls.
2. See Sheet SI-2 for pipe underdrain layout at west end of Wingwall H.



PLAN - PIPE UNDERDRAIN LAYOUT

STATION 5000+40.57
BUILT 202_ BY
CITY OF CHICAGO
F.A.U. 1520
SEC. 17-B7203-00-ES
LOADING HL-93
STR. NO. 016-6291

NAME PLATE
(See Std. 515001)

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	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-6291
SHEET NO. SH-2 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1089
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS FED. AID PROJECT				

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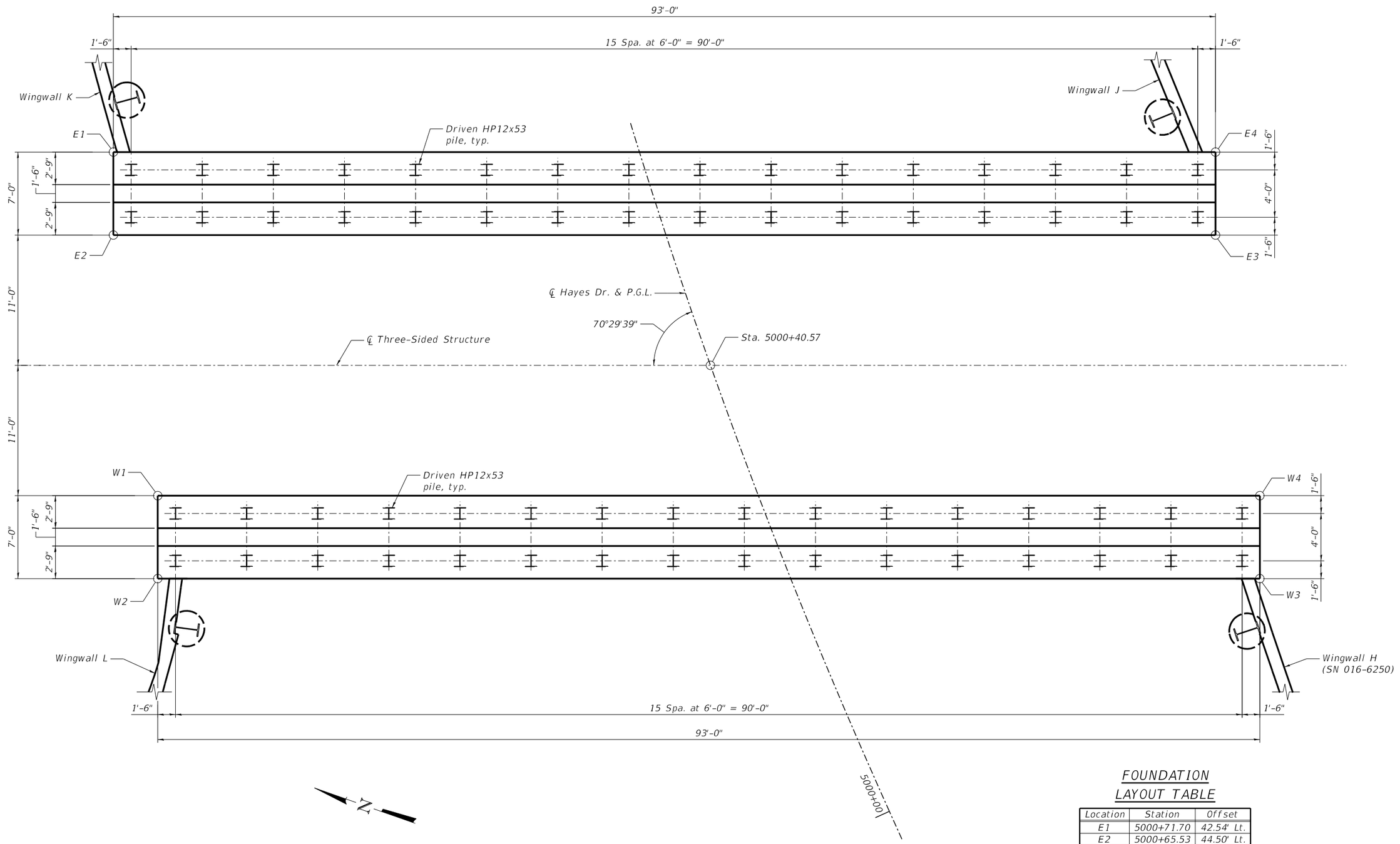

FOUNDATION LAYOUT TABLE

Location	Station	Offset
E1	5000+71.70	42.54' Lt.
E2	5000+65.53	44.50' Lt.
E3	5000+36.33	43.83' Rt.
E4	5000+43.59	46.17' Rt.
W1	5000+45.32	47.66' Lt.
W2	5000+39.30	49.97' Lt.
W3	5000+05.51	36.54' Rt.
W4	5000+12.48	39.29' Rt.

PLAN - FOUNDATION AND PILE LAYOUT

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FOUNDATION LAYOUT
STRUCTURE NO. 016-6291
SHEET NO. SH-3 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS	FED. AID PROJECT			

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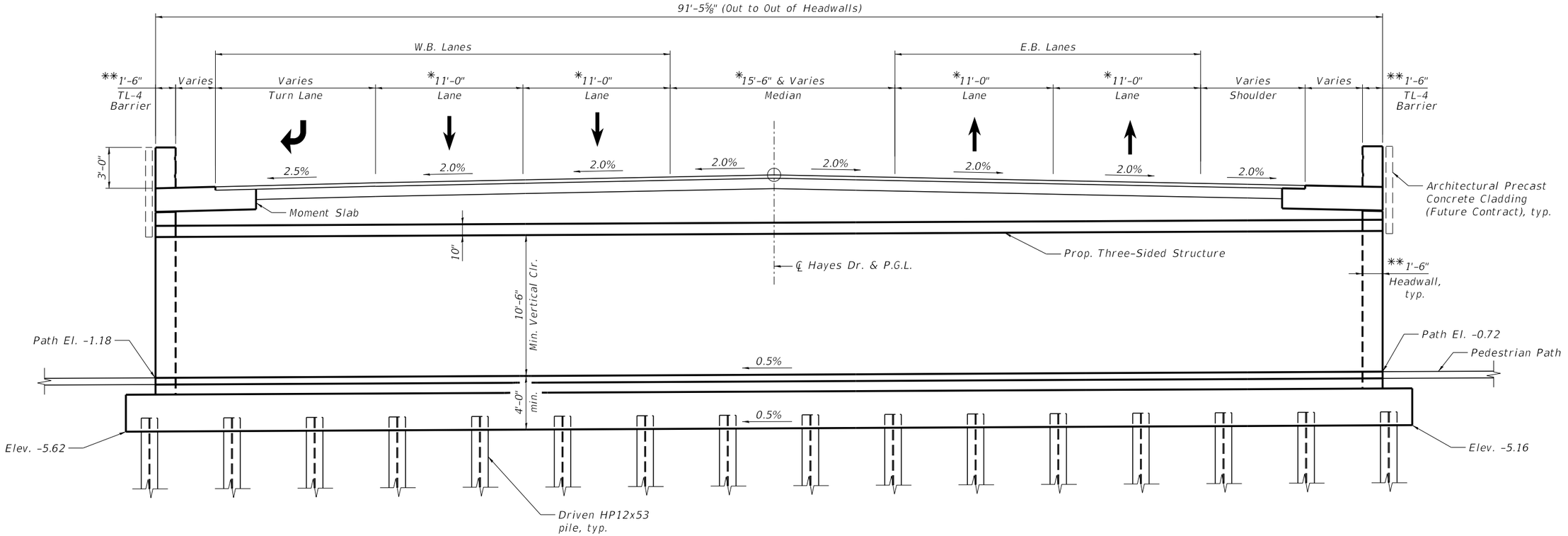

LONGITUDINAL SECTION ALONG EAST WALL OF THREE-SIDED STRUCTURE

(Looking East)

*Measured perpendicular to the direction of traffic

**Measured perpendicular to headwall

NOTE:

See Maintenance of Traffic and Civil plans for additional details.

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DIVISION OF ENGINEERING

LONGITUDINAL SECTION
STRUCTURE NO. 016-6291
SHEET NO. SH-4 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT				

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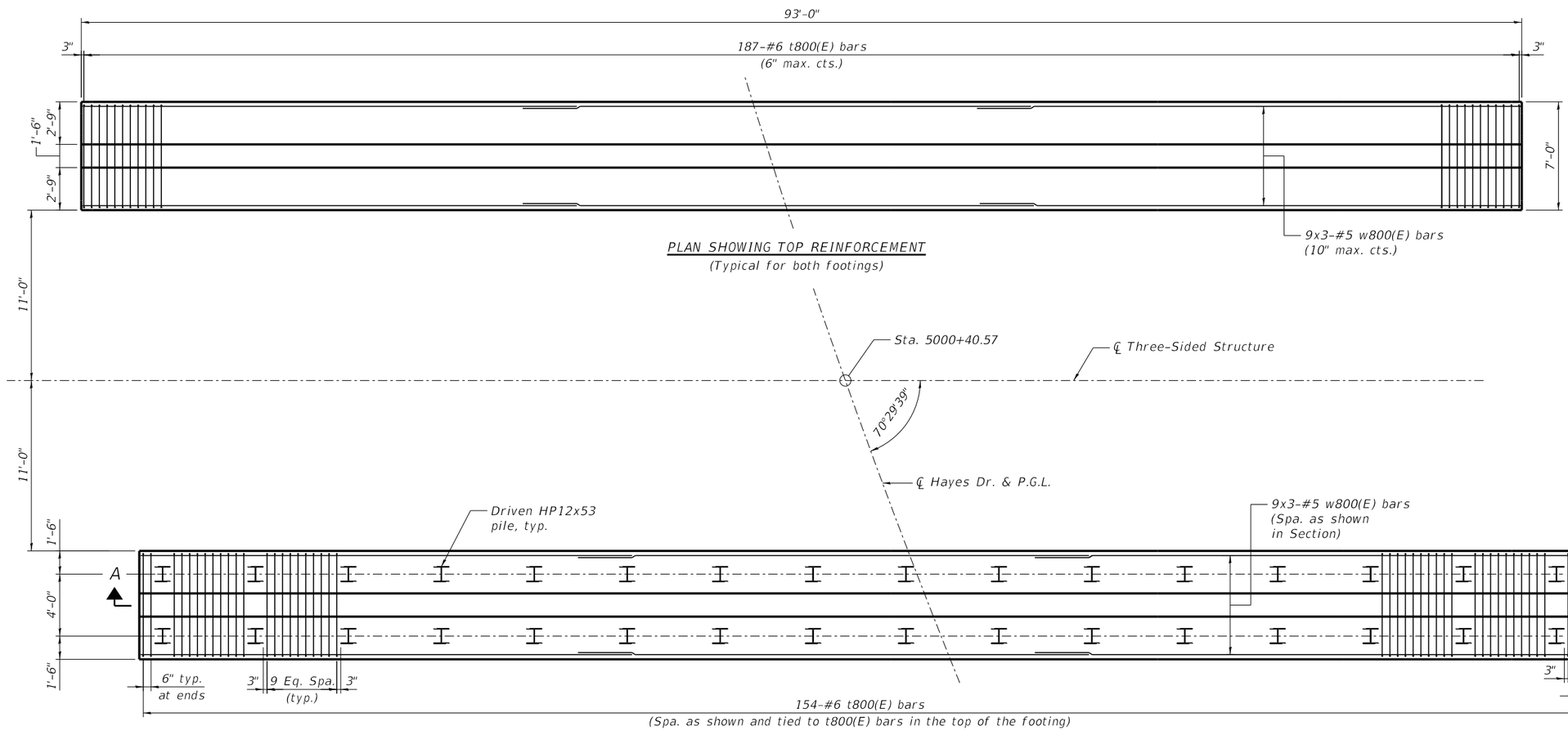


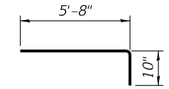
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n800(E)	56	#5	6'-6"	
t800(E)	682	#6	11'-5"	
w800(E)	108	#5	33'-6"	
High Performance Concrete Structures			Cu. Yd.	132.7
Reinforcement Bars, Epoxy Coated			Pound	15,850
Furnishing Steel Piles HP12x53			Foot	2,790
Driving Piles			Foot	2,790
Test Pile Steel HP12x53			Each	2
Pile Shoes			Each	64

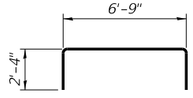
Bars indicated thus 2x3-#5 etc. indicate 2 lines of bars with 3 lengths per line.

PILE DATA

Type: HP12x53 w/ Pile Shoes
Nominal Required Bearing: 355 kips
Factored Resistance Available: 173 kips
Est. Length: 45 ft.
No. Production Piles: 62
No. Test Piles: 2



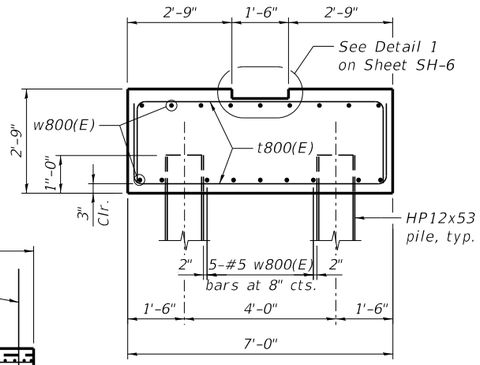
BAR n800(E)



BAR t800(E)

MINIMUM BAR LAP

#5 = 3'-10"



SECTION B-B

NOTE:

Arch Footing to Headwall dowels not shown in Plan for clarity. Work this sheet with Sheet SH-7 for placement of n800(E) bars. Avoid piles as necessary.

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ARCH FOOTING DETAILS
STRUCTURE NO. 016-6291
SHEET NO. SH-5 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

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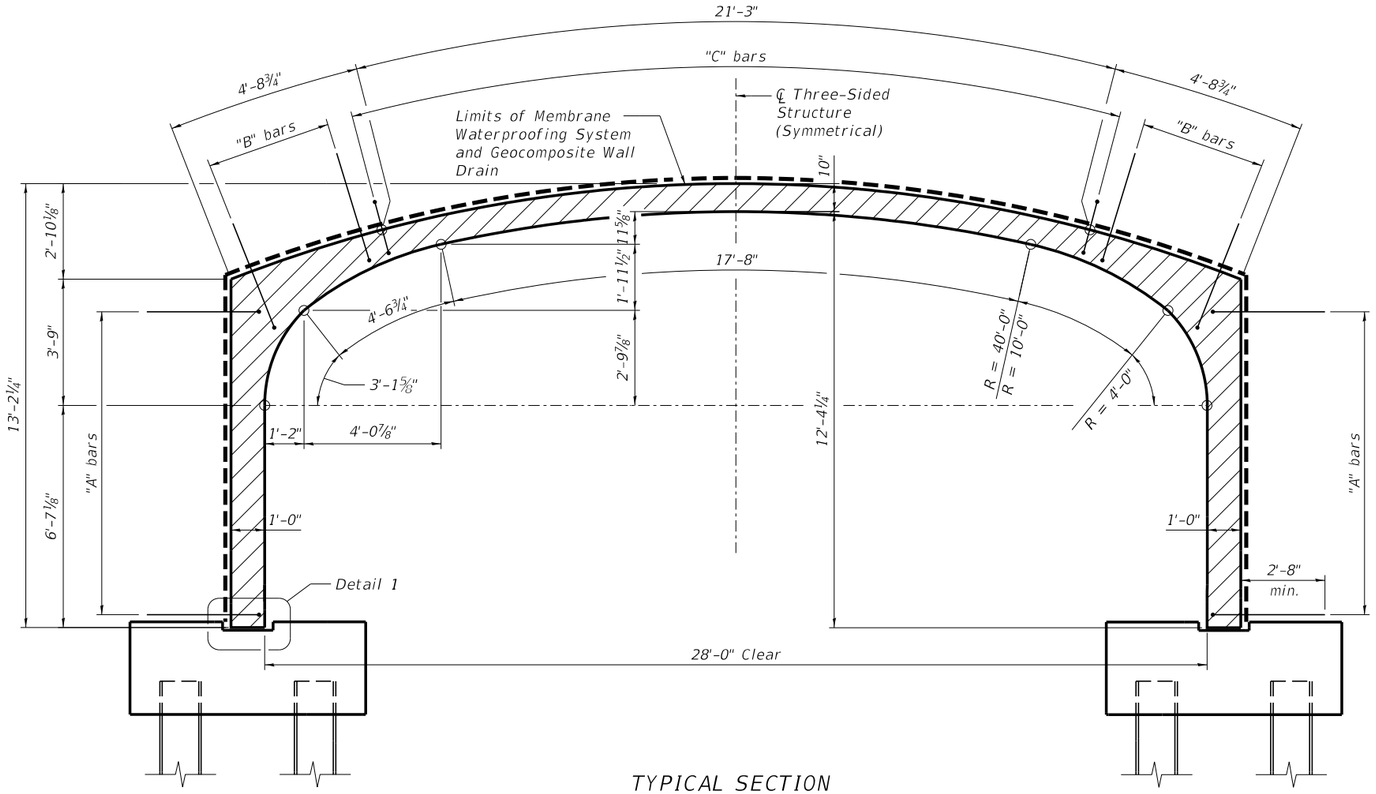
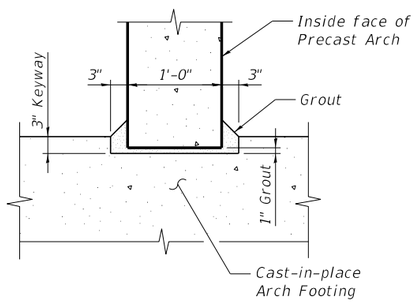
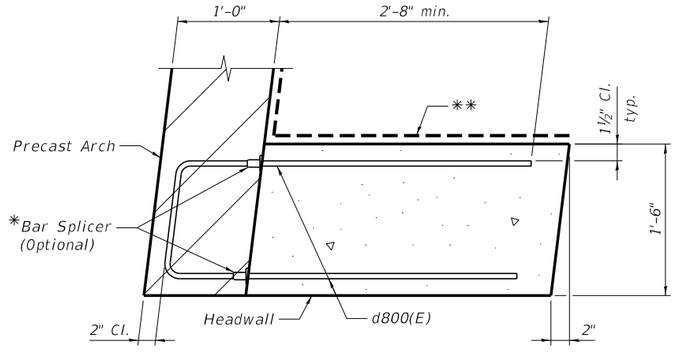


TYPICAL SECTION

(Dowel bars "A", "B", and "C" only required at headwall)



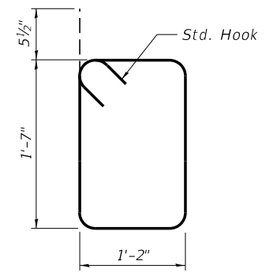
DETAIL 1



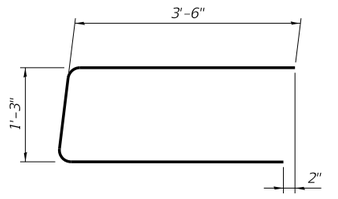
MECHANICAL SPLICE IN PRECAST ARCH DETAIL (OPTIONAL)

* Contractor may provide mechanical splicers as shown at no additional cost.

** Limits of Membrane Waterproofing System and Geocomposite Wall Drain.



BAR d801(E)



BAR d800(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d800(E)	116	#5	8'-3"	
d801(E)	90	#5	6'-5"	
* Reinforcement Bars, Epoxy Coated			Pound	1,610
Membrane Waterproofing System for Buried Structures			Sq. Yd.	502
Geocomposite Wall Drain			Sq. Yd.	502
Three-Sided Precast Concrete Structures 28'x13'			Foot	92

* For Information Only. Cost included with Three-Sided Precast Concrete Structures.

"A" bars = 21-#5 d800(E) bars at 6" max. cts.
"B" bars = 8-#5 d800(E) bars at 6" max. cts.
"C" bars = 45-#5 d801(E) bars at 6" max. cts.

NOTES:

1. The Contractor shall submit a complete design of the Precast Arch Structure and all construction documents to the Engineer for review and approval prior to starting construction. All documents shall be prepared and sealed by an Illinois Licensed Structural Engineer.
2. The three-sided concrete structure shall be designed, manufactured, installed and load rated per the requirements of the Special Provision for "Three-Sided Precast Concrete Structure", and shall include the effects of unyielding foundation conditions for the sequence of construction anticipated.
3. Joint waterproofing, Membrane Waterproofing System and Geocomposite Wall Drain shall be applied to the outer surfaces of the arch and headwall below the proposed roadway prior to backfilling per the applicable portions of Sections 503, 504, 540.06 and 591 of the Standard Specifications and per the Special Provisions for "Membrane Waterproofing System for Buried Structures" and "Three-Sided Precast Concrete Structure". Waterproofing must also meet the minimum requirements of the three-sided structure manufacturer. Joint spacing between precast arches shall be per the manufacturer's recommendations and shall be ¼" minimum.
4. Work this drawing with Sheet SH-7, Headwall Details, for placing of reinforcing bars shown.
5. Architectural Precast Concrete Cladding along with painting of the underside of arch and other architectural elements on the underside of arch to be installed in a future contract.
6. See Electrical Lighting Plans for Precast Arch Lighting Details.

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

ARCH DETAILS
STRUCTURE NO. 016-6291
SHEET NO. SH-6 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT				

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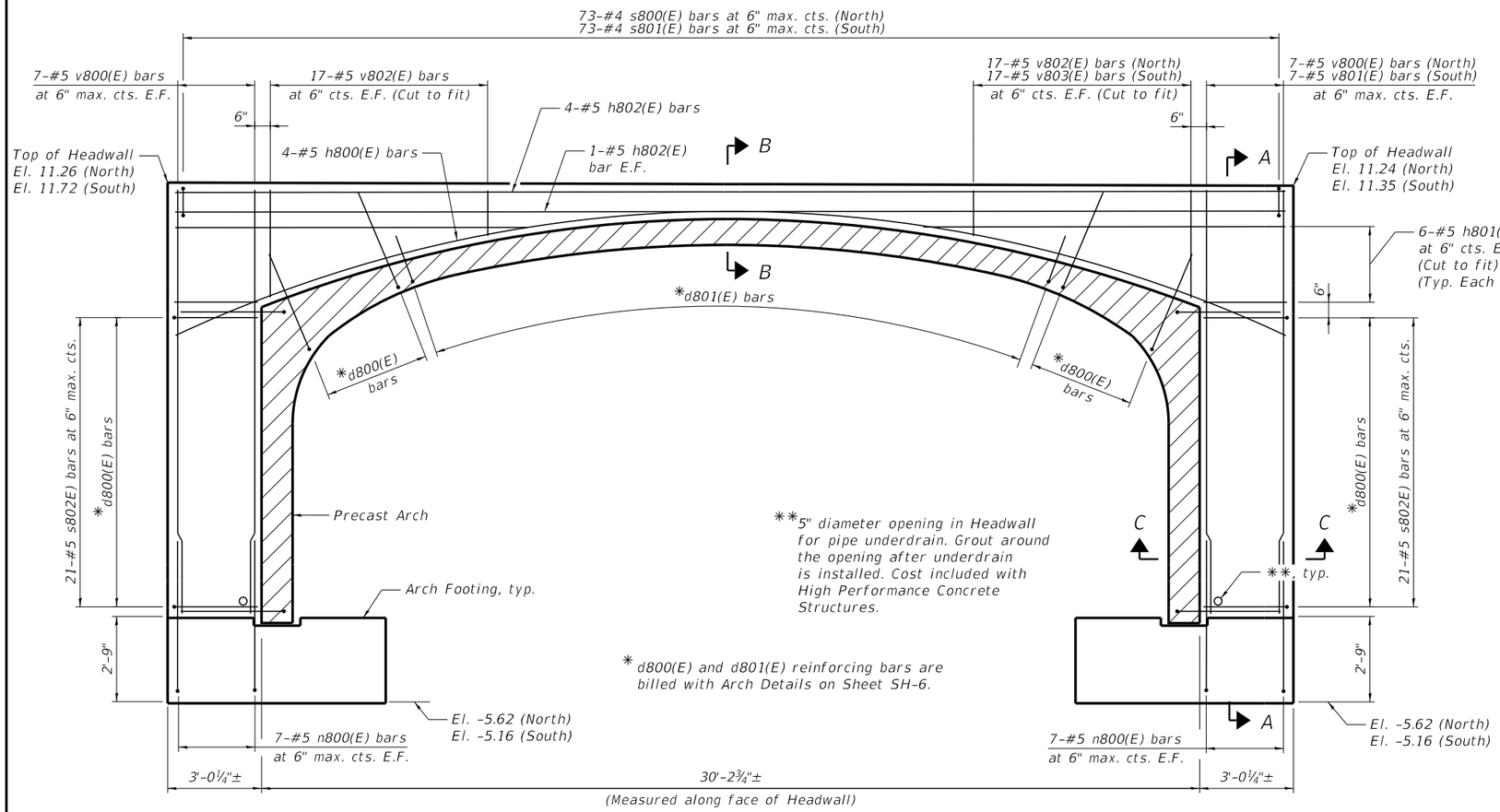
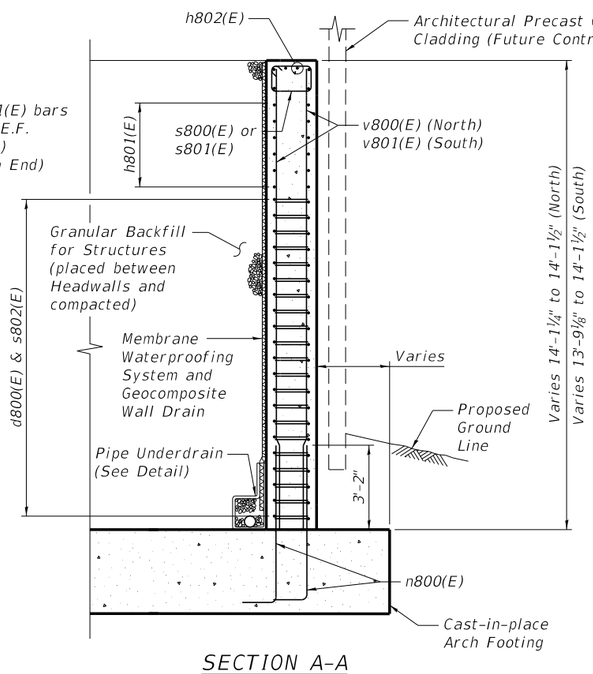


NOTES:

1. Work this sheet with Sheet SH-6 for billing of bars d800(E) and d801(E) and with Sheet SH-5 for billing of bars n800(E).
2. E.F. denotes Each Face.

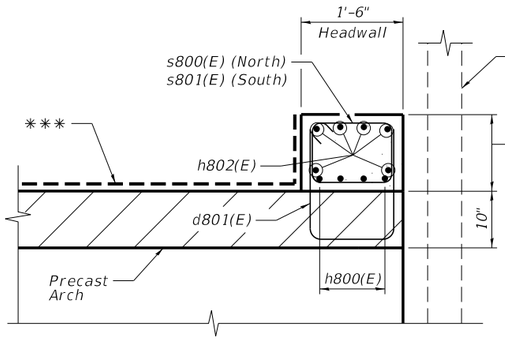


SECTION A-A

(Moment Slab and Arch Footing Piles not shown for clarity)

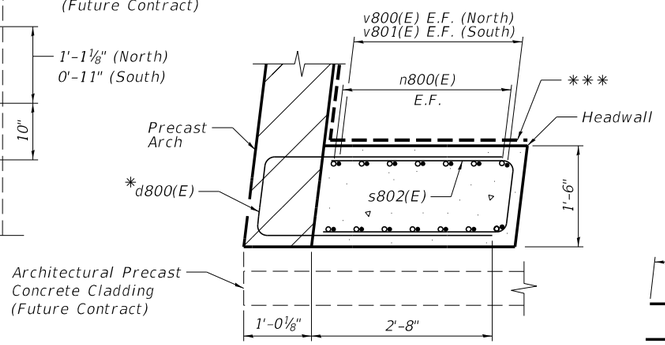
ELEVATION - HEADWALL

(Moment Slab and Arch Footing Piles not shown for clarity)



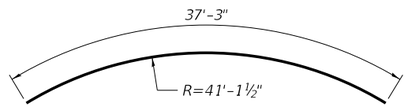
SECTION B-B

(Moment Slab not shown for clarity)

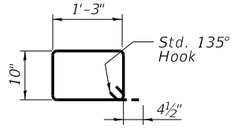


SECTION C-C

***Limits of Membrane Waterproofing System and Geocomposite Wall Drain



BAR h800(E)



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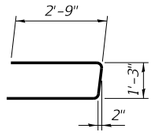

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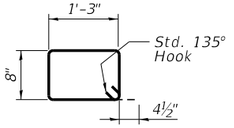
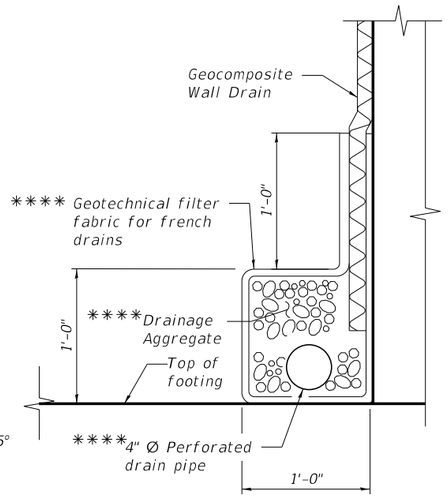


BAR s801(E)



PIPE UNDERDRAIN DETAIL

****Included in the cost of Pipe Underdrains for Structures, 4"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h800(E)	8	#5	37'-3"	
h801(E)	48	#5	15'-3"	
h802(E)	12	#5	36'-0"	
s800(E)	73	#4	4'-11"	
s801(E)	73	#4	4'-7"	
s802(E)	84	#5	6'-9"	
v800(E)	42	#5	13'-10"	
v801(E)	14	#5	13'-6"	
v802(E)	102	#5	3'-7"	
v803(E)	34	#5	3'-3"	

High Perfomance Concrete Structures	Cu. Yd.	16.0
Reinforcement Bars, Epoxy Coated	Pound	3,880
Membrane Waterproofing System for Buried Structures	Sq. Yd.	32
Geocomposite Wall Drain	Sq. Yd.	32
Granular Backfill for Structures	Cu. Yd.	469
Pipe Underdrains for Structures, 4"	Foot	189

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

HEADWALL DETAILS
STRUCTURE NO. 016-6291
SHEET NO. SH-7 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS	FED. AID PROJECT			

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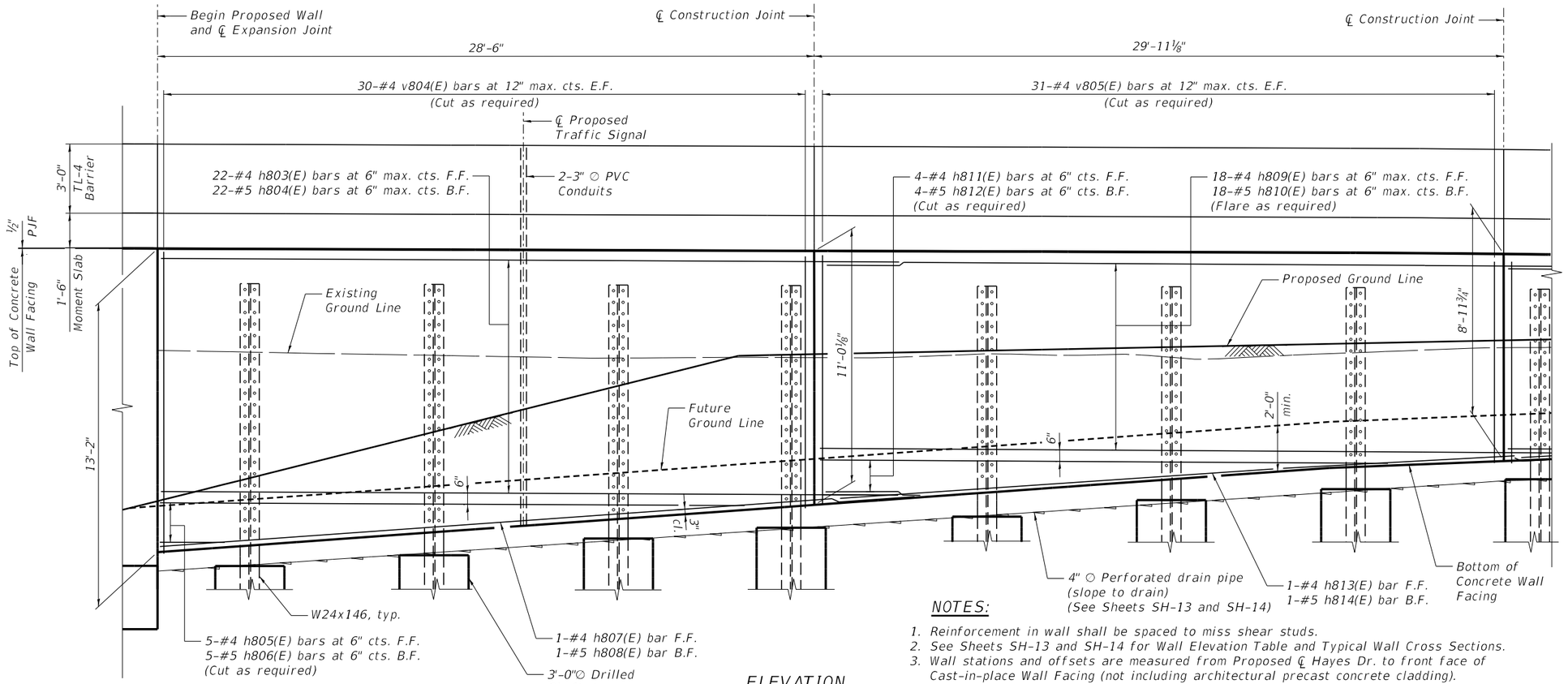
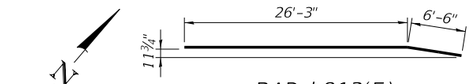


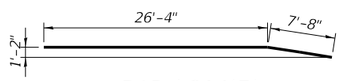
ELEVATION
(Wall Sections 1 & 2)

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SH-13 and SH-14 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front face of Cast-in-place Wall Facing (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SH-15 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheets SH-13 and SH-24 for conduit details, traffic signal details, and additional notes.
7. See Sheet SH-14 for Shear Stud Detail.
8. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise.
9. Pile spacing measured along Front Face of Wall. See Sheet SH-15 for specific stations and offsets.



BAR h813(E)



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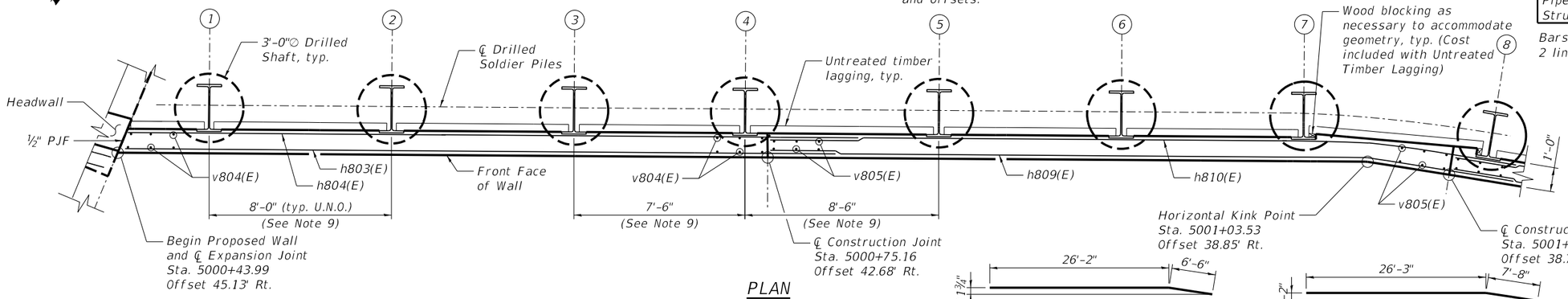
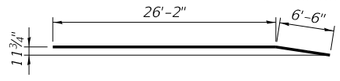
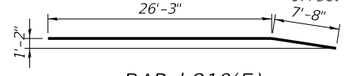


PLAN
(Wall Sections 1 & 2)



BAR h809(E)



BAR h810(E)

BILL OF MATERIAL - WALL J

Bar	No.	Size	Length	Shape
h803(E)	22	#4	31'-2"	
h804(E)	22	#5	32'-4"	
h805(E)	5	#4	26'-9"	
h806(E)	5	#5	26'-9"	
h807(E)	1	#4	31'-3"	
h808(E)	1	#5	32'-5"	
h809(E)	18	#4	32'-8"	
h810(E)	18	#5	33'-11"	
h811(E)	4	#4	23'-9"	
h812(E)	4	#5	23'-9"	
h813(E)	1	#4	32'-9"	
h814(E)	1	#5	34'-0"	
h815(E)	15	#4	35'-3"	
h816(E)	15	#5	35'-3"	
h817(E)	3	#4	24'-11"	
h818(E)	3	#5	24'-11"	
h819(E)	1	#4	35'-3"	
h820(E)	1	#5	35'-3"	
h821(E)	22	#4	32'-8"	
h822(E)	22	#5	33'-10"	
h823(E)	4	#4	27'-3"	
h824(E)	4	#5	27'-3"	
h825(E)	11	#4	29'-9"	
h826(E)	11	#5	29'-9"	
v804(E)	60	#4	12'-10"	
v805(E)	62	#4	10'-8"	
v806(E)	74	#4	8'-8"	
v807(E)	62	#4	6'-9"	
v808(E)	62	#4	4'-10"	
v809(E)	62	#4	4'-0"	
High Performance Concrete Structures		Cu. Yd.	51.1	
Stud Shear Connectors		Each	514	
Reinforcement Bars, Epoxy Coated		Pound	7,860	
Pile Shoes		Each	14	
Furnishing Soldier Piles (HP Section)		Foot	433	
Furnishing Soldier Piles (W Section)		Foot	285	
Driving Soldier Piles		Foot	433	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	1,437	
Untreated Timber Lagging		Sq. Ft.	1,094	
Geocomposite Wall Drain		Sq. Yd.	132	
Granular Backfill for Structures		Cu. Yd.	151	
Pipe Underdrains for Structures, 4"		Foot	192	

Bars indicated thus 2x3-#5 etc., indicate 2 lines of bars with 3 lengths per line.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WINGWALL J PLAN AND ELEVATION DETAILS (1 OF 3)
STRUCTURE NO. 016-6291
SHEET NO. SH-8 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1095
CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

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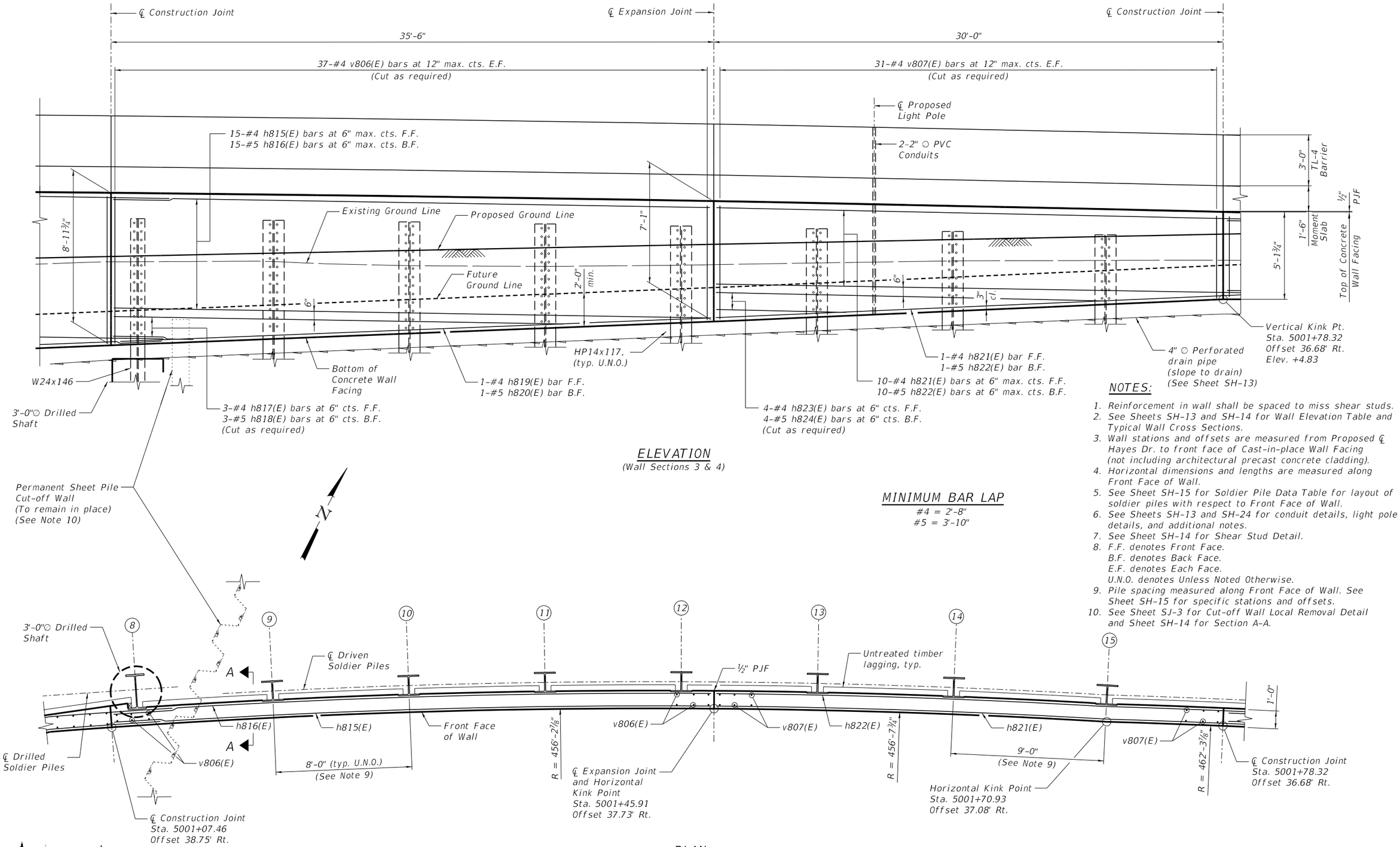

ELEVATION
(Wall Sections 3 & 4)

PLAN
(Wall Sections 3 & 4)

MINIMUM BAR LAP
#4 = 2'-8"
#5 = 3'-10"

NOTES:
1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SH-13 and SH-14 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front face of Cast-in-place Wall Facing (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SH-15 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheets SH-13 and SH-24 for conduit details, light pole details, and additional notes.
7. See Sheet SH-14 for Shear Stud Detail.
8. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise.
9. Pile spacing measured along Front Face of Wall. See Sheet SH-15 for specific stations and offsets.
10. See Sheet SJ-3 for Cut-off Wall Local Removal Detail and Sheet SH-14 for Section A-A.

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DEPARTMENT OF TRANSPORTATION
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WINGWALL J PLAN AND ELEVATION DETAILS (2 OF 3)
STRUCTURE NO. 016-6291
SHEET NO. SH-9 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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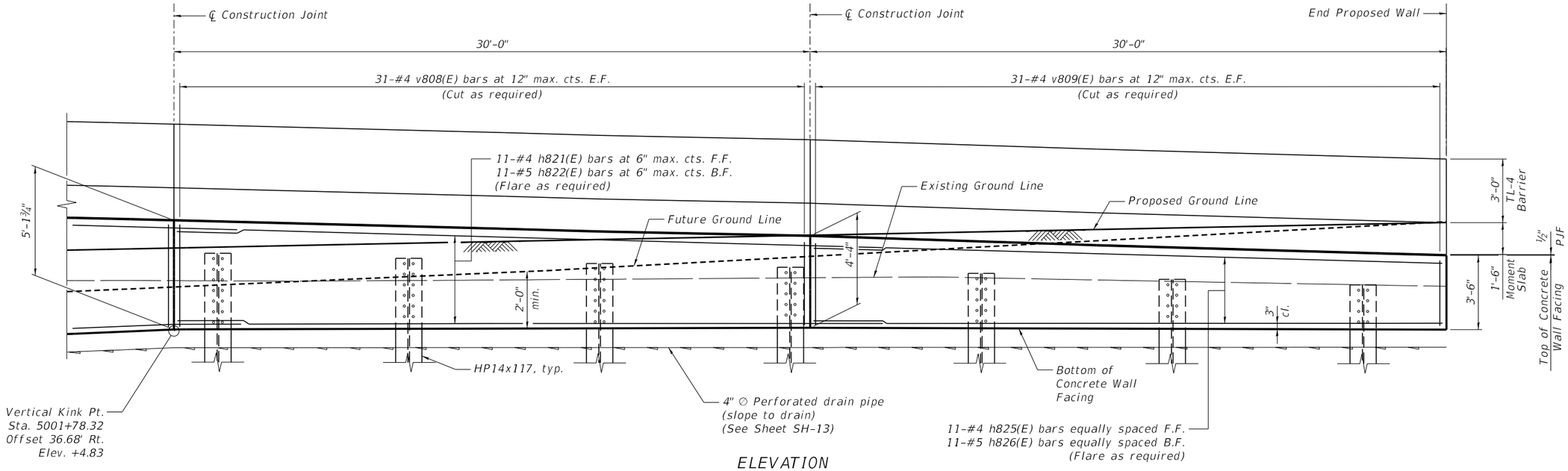
CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

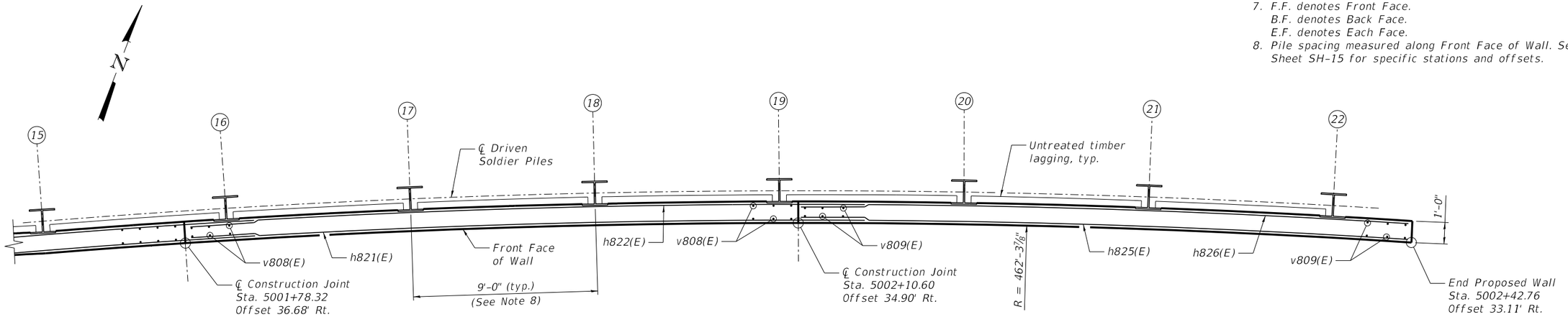


ELEVATION
(Wall Sections 5 & 6)

MINIMUM BAR LAP
#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SH-13 and SH-14 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front face of Cast-in-place Wall Facing (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SH-15 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheet SH-14 for Shear Stud Detail.
7. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
8. Pile spacing measured along Front Face of Wall. See Sheet SH-15 for specific stations and offsets.



PLAN
(Wall Sections 5 & 6)

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DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WINGWALL J PLAN AND ELEVATION DETAILS (3 OF 3)
STRUCTURE NO. 016-6291
SHEET NO. SH-10 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1097
CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

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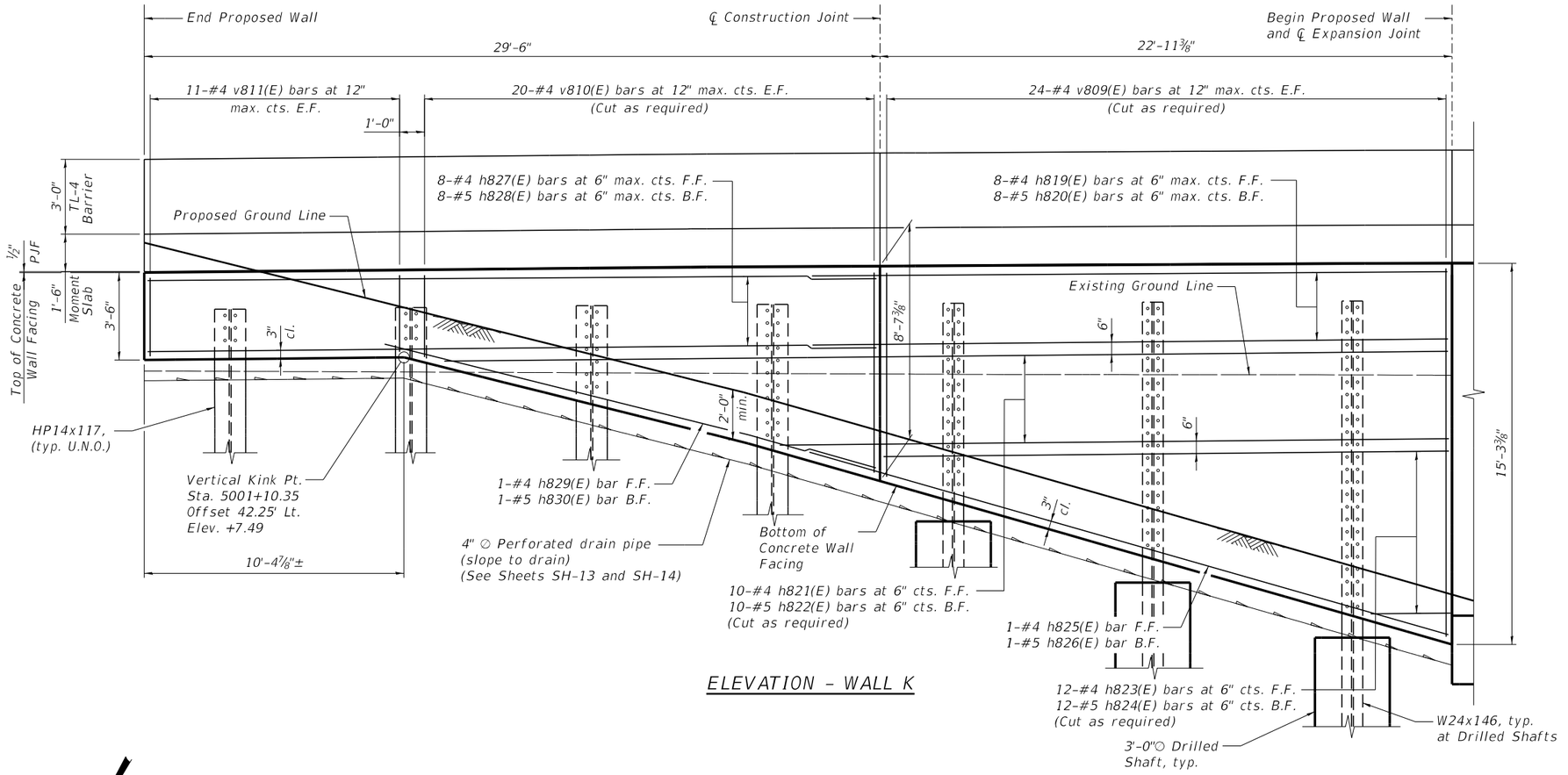


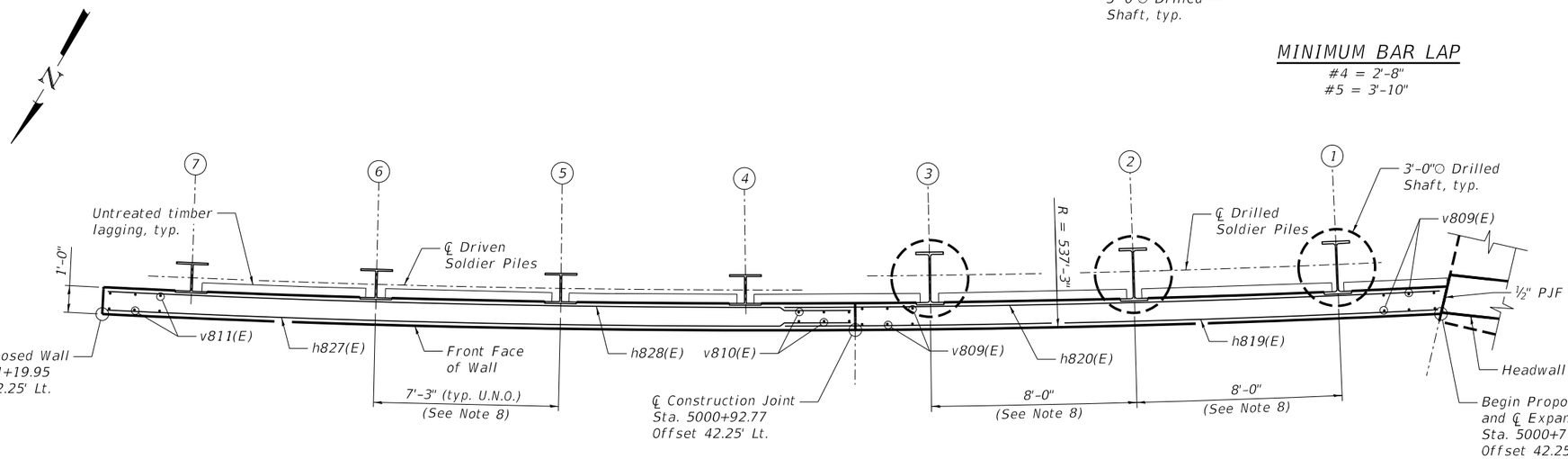
ELEVATION - WALL K

BILL OF MATERIAL - WALL K

Bar	No.	Size	Length	Shape
h819(E)	8	#4	25'-10"	——
h820(E)	8	#5	27'-0"	——
h821(E)	10	#4	41'-2"	——
h822(E)	10	#5	41'-2"	——
h823(E)	12	#4	22'-0"	——
h824(E)	12	#5	22'-0"	——
h825(E)	1	#4	26'-8"	——
h826(E)	1	#5	27'-11"	——
h827(E)	8	#4	29'-3"	——
h828(E)	8	#5	29'-3"	——
h829(E)	1	#4	20'-3"	——
h830(E)	1	#5	20'-3"	——
v809(E)	48	#4	14'-10"	——
v810(E)	40	#4	8'-2"	——
v811(E)	22	#4	3'-2"	——

High Performance Concrete Structures	Cu. Yd.	15.8
Stud Shear Connectors	Each	168
Reinforcement Bars, Epoxy Coated	Pound	2,750
Pile Shoes	Each	4
Furnishing Soldier Piles (HP Section)	Foot	94
Furnishing Soldier Piles (W Section)	Foot	113
Driving Soldier Piles	Foot	94
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	562
Untreated Timber Lagging	Sq. Ft.	347
Geocomposite Wall Drain	Sq. Yd.	42
Granular Backfill for Structures	Cu. Yd.	55
Pipe Underdrains for Structures, 4"	Foot	61

Bars indicated thus 2x3-#5 etc., indicate 2 lines of bars with 3 lengths per line.



PLAN - WALL K

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SH-13 and SH-14 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front face of Cast-in-place Wall Facing (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SH-15 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheet SH-14 for Shear Stud Detail.
7. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise.
8. Pile spacing measured along Front Face of Wall. See Sheet SH-15 for specific stations and offsets.

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DEPARTMENT OF TRANSPORTATION
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WINGWALL K PLAN AND ELEVATION DETAILS
STRUCTURE NO. 016-6291
SHEET NO. SH-11 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

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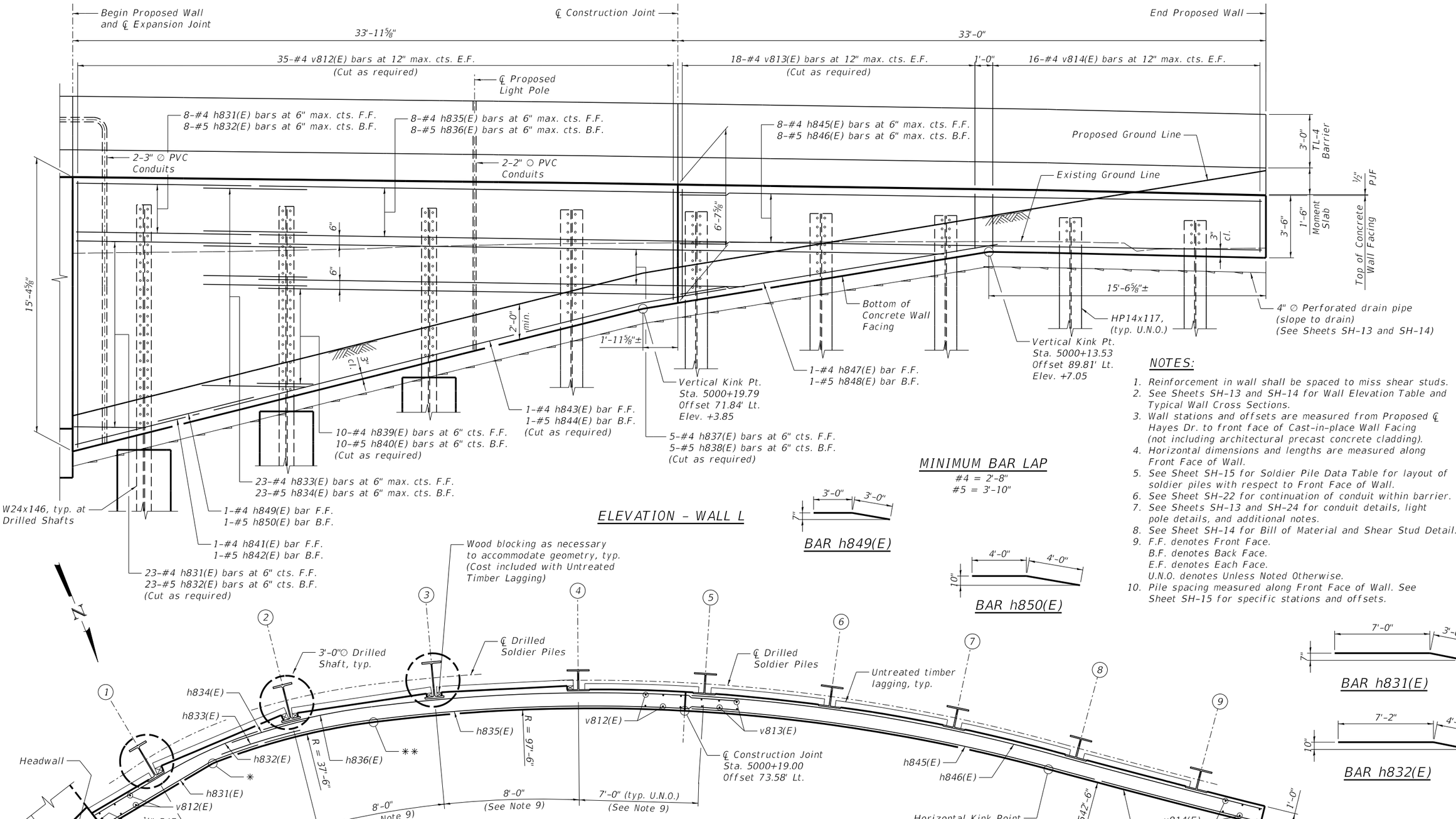

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SH-13 and SH-14 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front face of Cast-in-place Wall Facing (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SH-15 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheet SH-22 for continuation of conduit within barrier.
7. See Sheets SH-13 and SH-24 for conduit details, light pole details, and additional notes.
8. See Sheet SH-14 for Bill of Material and Shear Stud Detail.
9. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise.
10. Pile spacing measured along Front Face of Wall. See Sheet SH-15 for specific stations and offsets.

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WINGWALL L PLAN AND ELEVATION DETAILS
STRUCTURE NO. 016-6291
SHEET NO. SH-12 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

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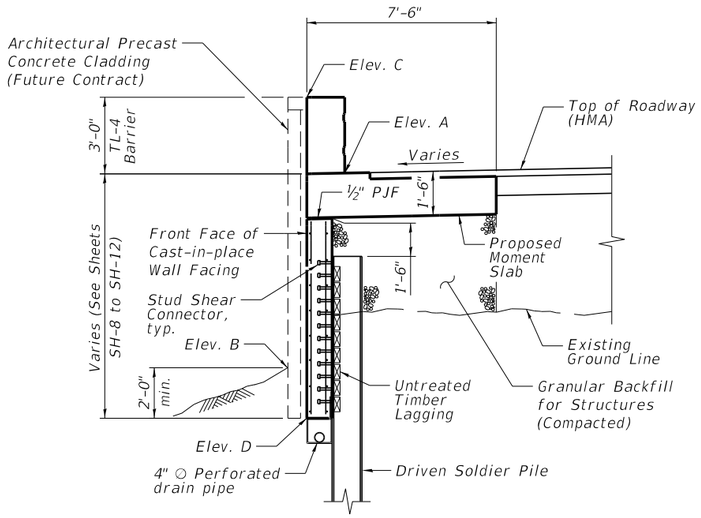
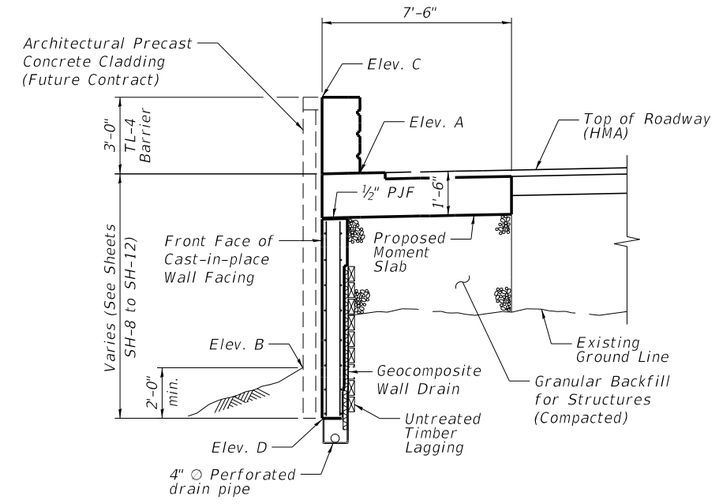


TYPICAL RETAINING WALL SECTION AT DRIVEN SOLDIER PILE

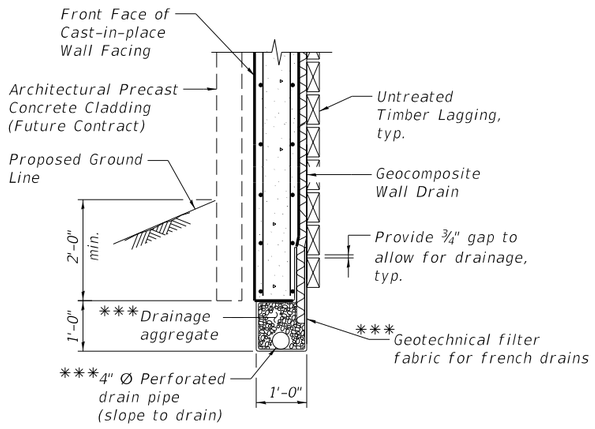


TYPICAL RETAINING WALL SECTION BETWEEN SOLDIER PILES

WALL ELEVATION TABLE

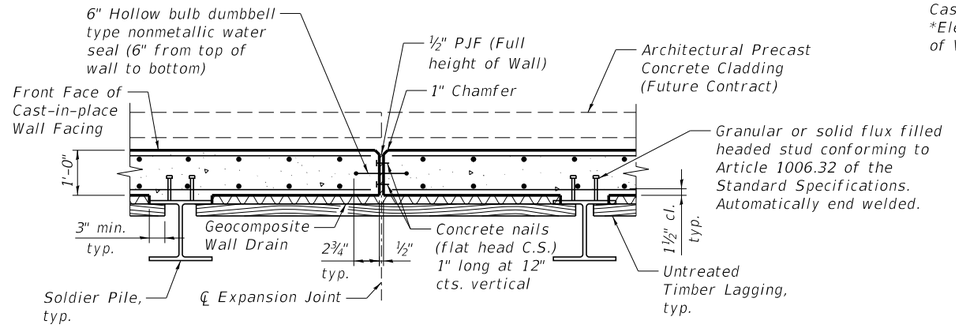
Wall	Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D
Wall J	5000+43.99	45.13' Rt.	12.89	*0.40/0.18	15.89	-1.82
	5000+75.16	42.68' Rt.	12.78	*6.77/2.23	15.78	0.23
	5001+03.53	38.85' Rt.	12.68	*7.29/3.99	15.68	1.99
	5001+07.46	38.75' Rt.	12.65	*7.36/4.13	15.65	2.13
	5001+45.91	37.73' Rt.	12.16	*8.07/5.53	15.16	3.53
	5001+70.93	37.08' Rt.	11.68	*8.54/6.53	14.68	4.53
	5001+78.32	36.68' Rt.	11.52	*8.67/6.83	14.52	4.83
	5002+10.60	34.90' Rt.	10.78	*9.27/8.28	13.78	4.91
	5002+42.76	33.11' Rt.	9.86	*9.87/9.90	12.86	4.82
Wall K	5000+71.63	42.25' Lt.	12.80	-2.02	15.80	-4.02
	5000+92.77	42.25' Lt.	12.68	4.53	15.68	2.53
	5001+10.35	42.25' Lt.	12.53	9.49	15.53	7.49
	5001+19.95	42.25' Lt.	12.43	12.10	15.43	7.39
Wall L	5000+39.00	49.05' Lt.	12.78	-2.15	15.78	-4.15
	5000+33.26	52.33' Lt.	12.69	-0.36	15.69	-2.36
	5000+27.28	58.85' Lt.	12.58	1.97	15.58	-0.03
	5000+19.79	71.84' Lt.	12.39	5.85	15.39	3.85
	5000+19.00	73.58' Lt.	12.36	6.18	15.36	4.18
	5000+13.53	89.81' Lt.	12.09	9.05	15.09	7.05
	5000+12.82	92.97' Lt.	12.04	9.58	15.04	6.99
	5000+10.26	104.86' Lt.	11.75	11.60	14.75	6.71

Elevation A - Finished Grade at Back Face of Wall (Top of Roadway)
Elevation B - Proposed Grade at Front Face of Wall
Elevation C - Top of Barrier Elevation
Elevation D - Bottom of Cast-in-place Wall Facing
Wall stations and offsets are measured from Proposed ℄ Hayes Dr. to front of Cast-in-place Wall Facing (not including architectural precast concrete cladding).
**Elevation B at Wall J is listed as Proposed Grade/Future Grade at Front Face of Wall based on future site improvements.*

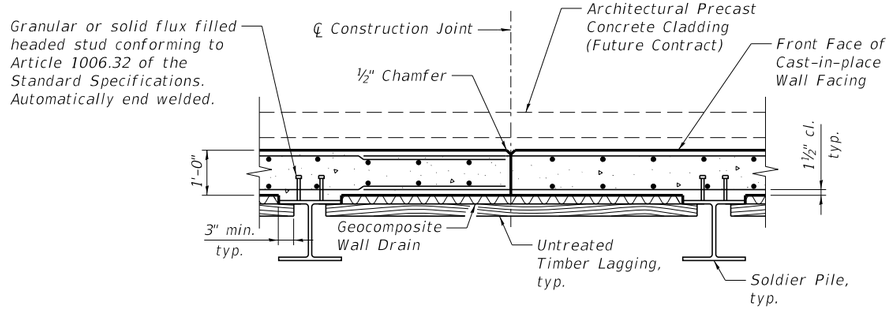


UNDERDRAIN DETAIL BETWEEN SOLDIER PILES

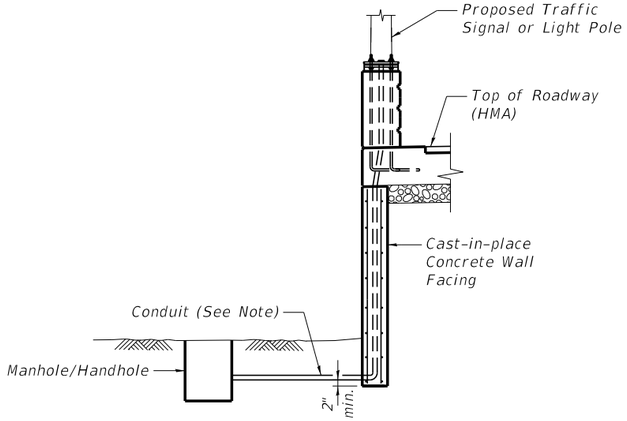
***Included in the cost of Pipe Underdrains for Structures, 4" (See Special Provisions).*



EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL



RETAINING WALL CONDUIT INSTALLATION DETAIL

NOTE:

See Sheet SH-24, Traffic Signals plans and Electrical plans for additional traffic signal and lighting details.

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	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

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SOLDIER PILE WALL DETAILS (1 OF 2)
STRUCTURE NO. 016-6291
SHEET NO. SH-13 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

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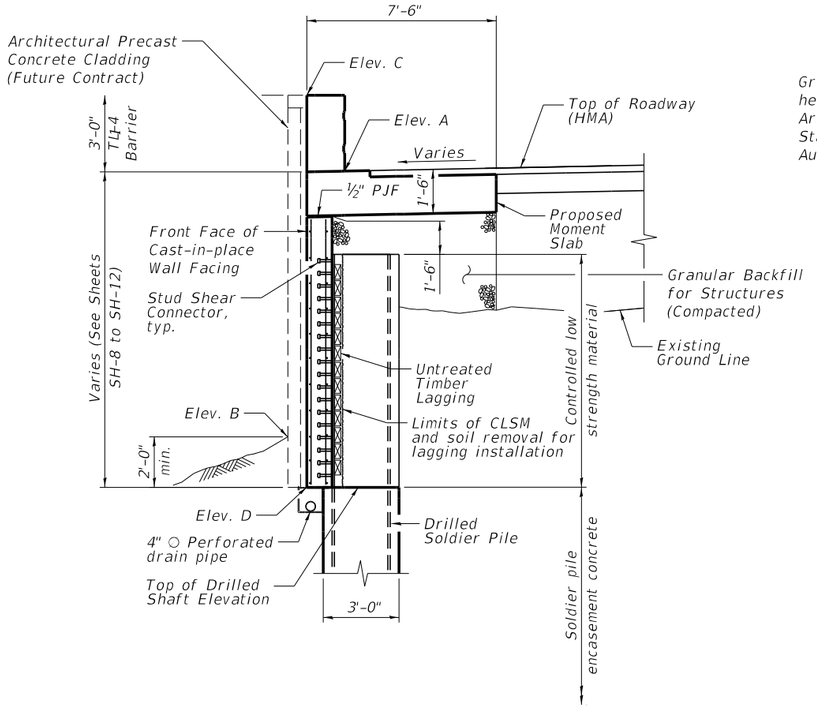
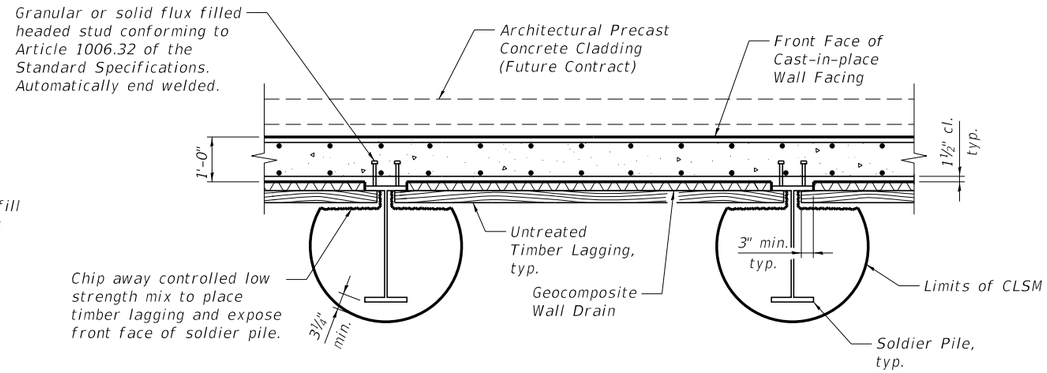
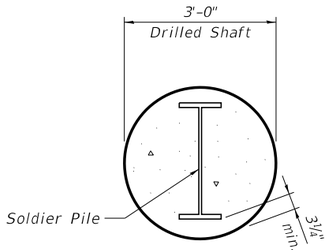


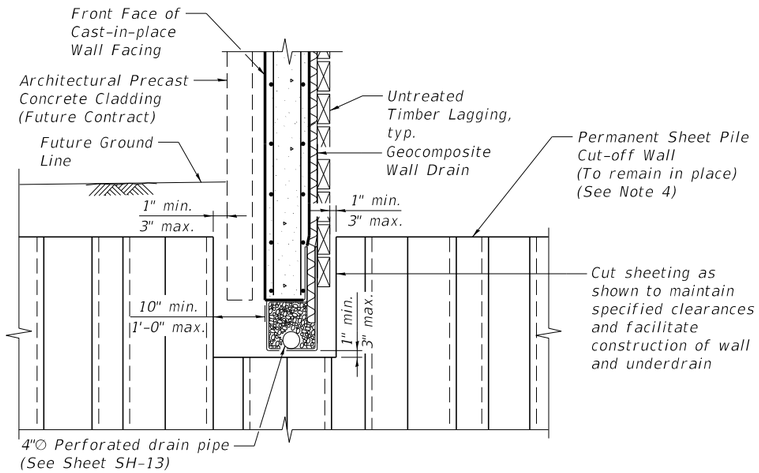
TYPICAL RETAINING WALL SECTION AT DRILLED SOLDIER PILE



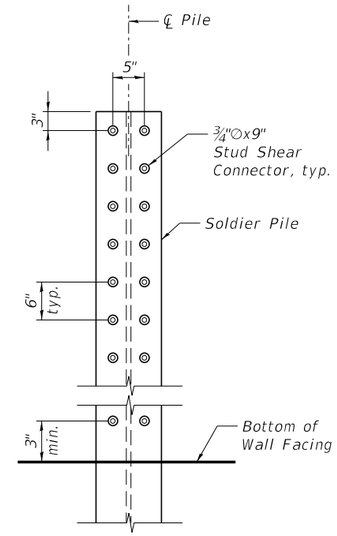
SECTION THRU DRILLED SOLDIER PILE WALL



SOLDIER PILE ENCASEMENT



SECTION A-A AT WINGWALL J



SHEAR STUD DETAIL

BILL OF MATERIAL - WALL L

Bar	No.	Size	Length	Shape
h831(E)	31	#4	10'-0"	
h832(E)	31	#5	11'-2"	
h833(E)	23	#4	5'-8"	
h834(E)	23	#5	8'-0"	
h835(E)	8	#4	27'-3"	
h836(E)	8	#5	28'-3"	
h837(E)	5	#4	38'-7"	
h838(E)	5	#5	38'-5"	
h839(E)	10	#4	24'-2"	
h840(E)	10	#5	23'-10"	
h841(E)	1	#4	7'-3"	
h842(E)	1	#5	7'-5"	
h843(E)	1	#4	31'-6"	
h844(E)	1	#5	33'-0"	
h845(E)	8	#4	32'-8"	
h846(E)	8	#5	32'-10"	
h847(E)	1	#4	18'-4"	
h848(E)	1	#5	18'-4"	
h849(E)	1	#4	6'-0"	
h850(E)	1	#5	8'-0"	
v812(E)	70	#4	15'-0"	
v813(E)	36	#4	6'-3"	
v814(E)	32	#4	3'-2"	

High Performance Concrete Structures	Cu. Yd.	20.8
Stud Shear Connectors	Each	202
Reinforcement Bars, Epoxy Coated	Pound	3,450
Pile Shoes	Each	6
Furnishing Soldier Piles (HP Section)	Foot	161
Furnishing Soldier Piles (W Section)	Foot	121
Driving Soldier Piles	Foot	161
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	610
Untreated Timber Lagging	Sq. Ft.	415
Geocomposite Wall Drain	Sq. Yd.	50
Granular Backfill for Structures	Cu. Yd.	56
Pipe Underdrains for Structures, 4"	Foot	76

NOTES:

1. Temporary casing may be required for granular and intermediate soils and shall conform to Article 516.06 of the Standard Specifications.
2. For Wall L Details, see Sheet SH-12.
3. For elevations A thru D, see Wall Elevation Table on Sheet SH-13.
4. See Sheets SJ-2 and SJ-3 for additional Cut-off Wall details.

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FILE NAME = ABC-sht-6291-soldierdetails-002.dgn	USER NAME = jsurber	DESIGNED - PAB/JPM	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

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SOLDIER PILE WALL DETAILS (2 OF 2)
STRUCTURE NO. 016-6291
SHEET NO. SH-14 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1101
CDOT PROJECT NO.	B-7-203	SN 016-6291		
	ILLINOIS FED. AID PROJECT			

SOLDIER PILE DATA TABLE – WINGWALL J

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	*Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W24x146	3'-0"	5000+48.38	44.89' Rt.	+9.83	+1.40	-2.42	-28.17	38.0'	44
2	W24x146	3'-0"	5000+57.15	44.31' Rt.	+9.80	+3.40	-1.95	-27.20	37.0'	42
3	W24x146	3'-0"	5000+65.89	43.60' Rt.	+9.77	+5.40	-1.23	-26.73	36.5'	40
4	W24x146	3'-0"	5000+74.07	42.80' Rt.	+9.74	+6.75	-0.76	-26.26	36.0'	38
5	W24x146	3'-0"	5000+83.29	41.74' Rt.	+9.72	+6.92	-0.28	-25.78	35.5'	34
6	W24x146	3'-0"	5000+91.92	40.61' Rt.	+9.69	+7.08	+0.44	-24.81	34.5'	32
7	W24x146	3'-0"	5001+00.52	39.33' Rt.	+9.66	+7.24	+0.91	-24.34	34.0'	30
8	W24x146	3'-0"	5001+09.15	38.71' Rt.	+9.59	+7.40	+1.34	-23.91	33.5'	28
9	HP14x117	-	5001+17.82	38.48' Rt.	+9.49	+7.56	-	-25.01	34.5'	26
10	HP14x117	-	5001+26.49	38.25' Rt.	+9.40	+7.72	-	-24.60	34.0'	26
11	HP14x117	-	5001+35.16	38.02' Rt.	+9.28	+7.87	-	-24.22	33.5'	24
12	HP14x117	-	5001+43.82	37.79' Rt.	+9.15	+8.03	-	-23.85	33.0'	22
13	HP14x117	-	5001+52.47	37.56' Rt.	+9.00	+8.19	-	-23.50	32.5'	20
14	HP14x117	-	5001+61.12	37.33' Rt.	+8.83	+8.35	-	-23.17	32.0'	18
15	HP14x117	-	5001+70.85	37.08' Rt.	+8.64	+8.53	-	-22.86	31.5'	16
16	HP14x117	-	5001+80.56	36.55' Rt.	+8.42	+8.71	-	-22.58	31.0'	14
17	HP14x117	-	5001+90.25	36.02' Rt.	+8.19	+8.89	-	-21.81	30.0'	12
18	HP14x117	-	5001+99.94	35.49' Rt.	+7.94	+9.07	-	-21.56	29.5'	12
19	HP14x117	-	5002+09.61	34.95' Rt.	+7.76	+9.25	-	-21.24	29.0'	10
20	HP14x117	-	5002+19.27	34.42' Rt.	+7.47	+9.43	-	-20.53	28.0'	10
21	HP14x117	-	5002+28.92	33.89' Rt.	+7.19	+9.61	-	-20.31	27.5'	8
22	HP14x117	-	5002+38.56	33.35' Rt.	+6.93	+9.79	-	-19.57	26.5'	8

*Elevation shown is for the Proposed Ground Line.

SOLDIER PILE DATA TABLE – WINGWALL K

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W24x146	3'-0"	5000+75.31	42.25' Lt.	+9.75	-0.88	-3.75	-30.25	40.0'	50
2	W24x146	3'-0"	5000+82.68	42.25' Lt.	+9.70	+1.40	-1.55	-27.80	37.5'	40
3	W24x146	3'-0"	5000+90.05	42.25' Lt.	+9.66	+3.69	+0.91	-25.84	35.5'	30
4	HP14x117	-	5000+96.73	42.25' Lt.	+9.62	+5.76	-	-16.38	26.0'	22
5	HP14x117	-	5001+03.41	42.25' Lt.	+9.56	+7.61	-	-14.94	24.5'	14
6	HP14x117	-	5001+10.09	42.25' Lt.	+9.49	+9.42	-	-13.01	22.5'	6
7	HP14x117	-	5001+16.77	42.25' Lt.	+9.42	+11.23	-	-11.08	20.5'	6

SOLDIER PILE DATA TABLE – WINGWALL L

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W24x146	3'-0"	5000+35.77	50.88' Lt.	+9.69	-1.15	-4.06	-32.81	42.5'	50
2	W24x146	3'-0"	5000+29.94	55.51' Lt.	+9.60	+0.85	-1.90	-30.90	40.5'	42
3	W24x146	3'-0"	5000+25.38	61.67' Lt.	+9.50	+2.85	+0.00	-28.50	38.0'	34
4	HP14x117	-	5000+21.51	68.36' Lt.	+9.40	+4.85	-	-20.60	30.0'	24
5	HP14x117	-	5000+18.60	74.51' Lt.	+9.30	+6.35	-	-19.20	28.5'	18
6	HP14x117	-	5000+16.13	80.91' Lt.	+9.19	+7.50	-	-18.31	27.5'	14
7	HP14x117	-	5000+14.12	87.50' Lt.	+9.08	+8.65	-	-16.92	26.0'	8
8	HP14x117	-	5000+12.55	94.24' Lt.	+8.96	+9.80	-	-16.04	25.0'	6
9	HP14x117	-	5000+11.10	101.03' Lt.	+8.80	+10.95	-	-14.70	23.5'	6

NOTES:

1. Bottom of panel shall be placed at a minimum of 2'-0" below proposed ground line.
2. Elevations shall be verified in the field and may be adjusted as directed by the Engineer.
3. Stations and offsets for piles taken at F.F. of Cast-In-Place Wall.
4. F.F. denotes Front Face.

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		CHECKED - JLS	REVISED -
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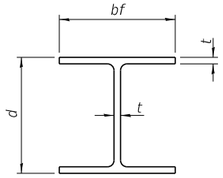
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

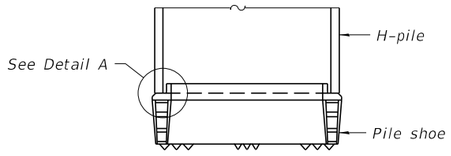
SOLDIER PILE DATA TABLES
STRUCTURE NO. 016-6291
SHEET NO. SH-15 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1102
CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

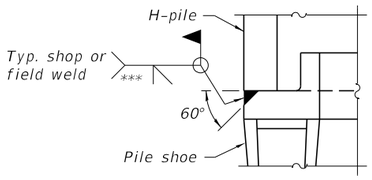


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14¼"	14⅞"	13/16"	30"
x102	14"	14¾"	1 1/16"	30"
x89	13⅞"	14¾"	⅝"	30"
x73	13⅝"	14⅝"	½"	30"
HP 12x84	12¼"	12¼"	1 1/16"	24"
x74	12⅛"	12¼"	⅝"	24"
x63	12"	12⅛"	½"	24"
x53	11¾"	12"	7/16"	24"
HP 10x57	10"	10¼"	9/16"	24"
x42	9¾"	10⅛"	7/16"	24"
HP 8x36	8"	8⅛"	7/16"	18"



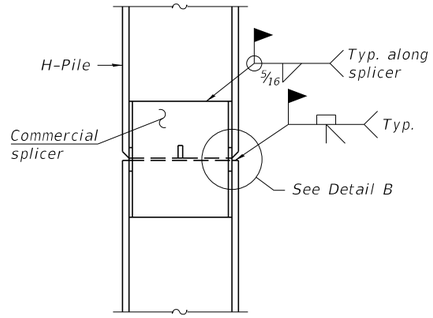
ELEVATION



DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



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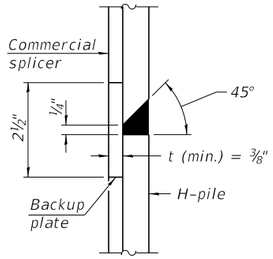
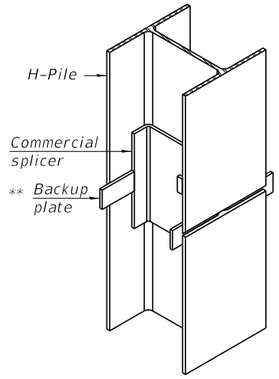
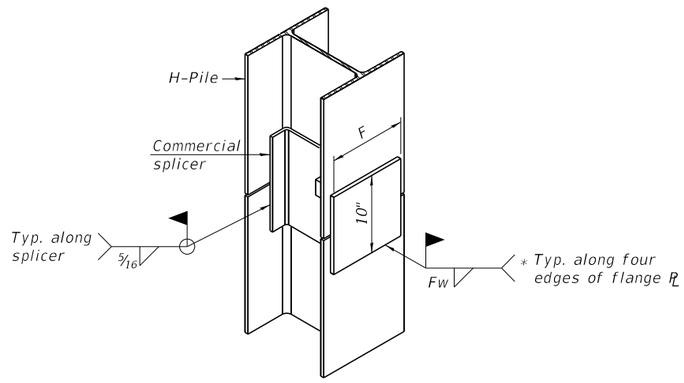


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



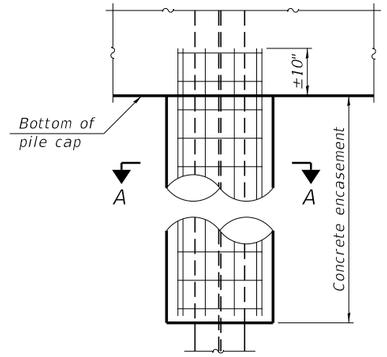
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

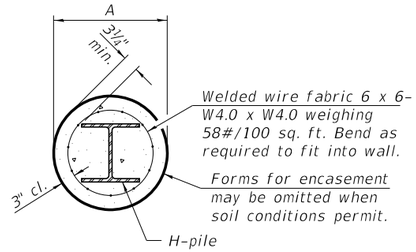
* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).

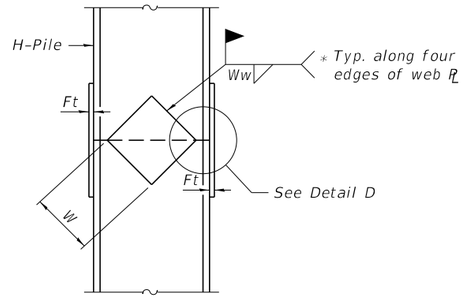


ELEVATION

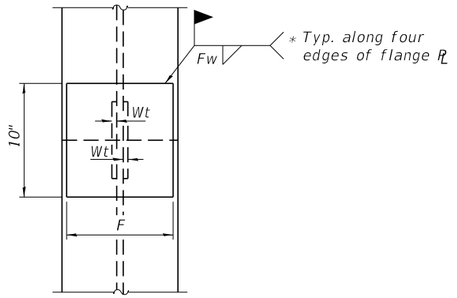


SECTION A-A

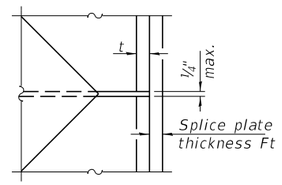
INDIVIDUAL PILE
CONCRETE ENCASEMENT
(when specified)



ELEVATION



END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12½"	1"	⅞"	7¾"	⅝"	½"
x102	12½"	⅞"	¾"	7¾"	⅝"	½"
x89	12½"	¾"	1 1/16"	7¾"	⅝"	½"
x73	12½"	⅝"	9/16"	7¾"	⅝"	½"
HP 12x84	10"	⅞"	1 1/16"	6½"	⅝"	½"
x74	10"	⅞"	1 1/16"	6½"	⅝"	½"
x63	10"	⅝"	½"	6½"	½"	⅜"
x53	10"	⅝"	½"	6½"	½"	⅜"
HP 10x57	8"	¾"	9/16"	5¼"	½"	⅜"
x42	8"	⅝"	9/16"	5¼"	½"	⅜"
HP 8x36	7"	⅝"	7/16"	4½"	½"	⅜"

WELDED PLATE FIELD SPLICE

F-HP 1-1-2020

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HP PILE DETAILS
STRUCTURE NO. 016-6291
SHEET NO. SH-16 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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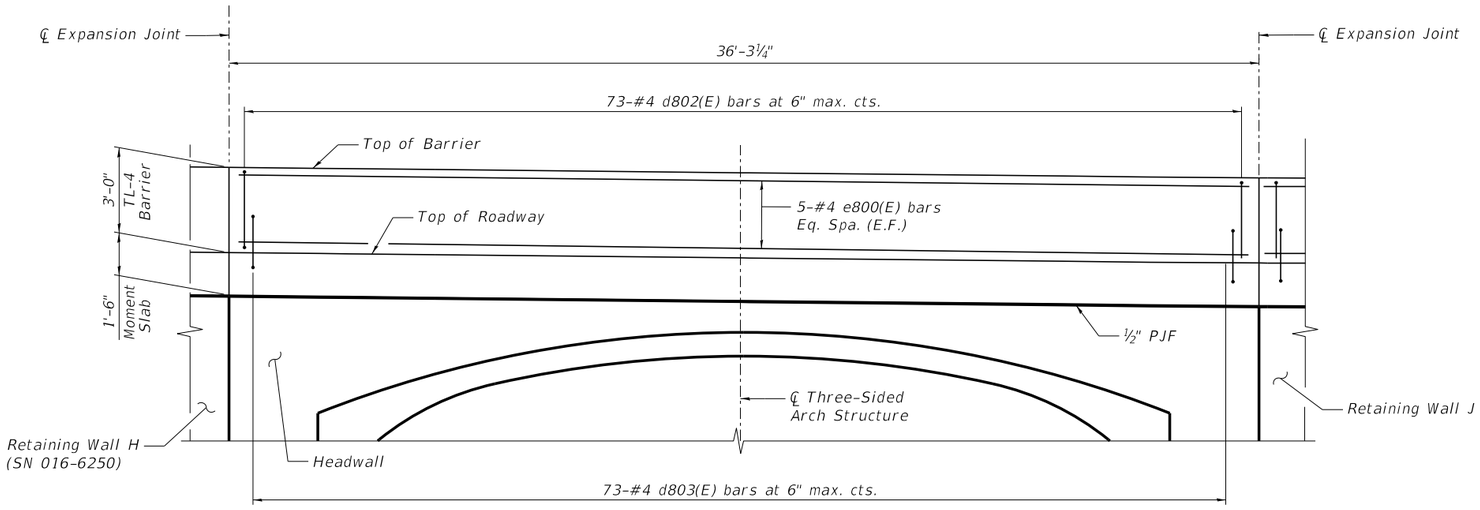
	CDOT PROJECT NO. B-7-203	SN 016-6291		
	ILLINOIS FED. AID PROJECT			



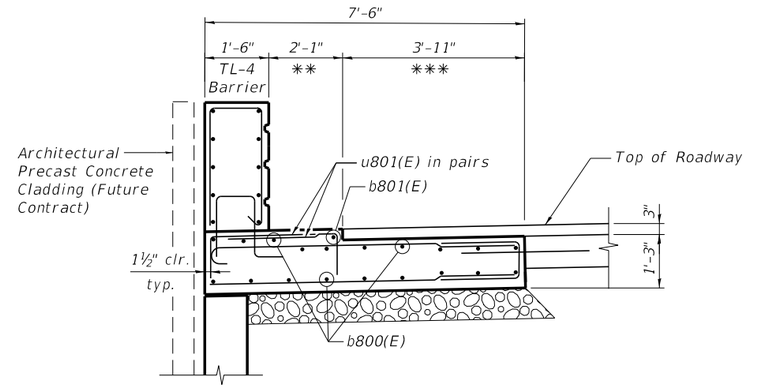
ELEVATION - MOMENT SLAB AND BARRIER

(South Headwall)

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

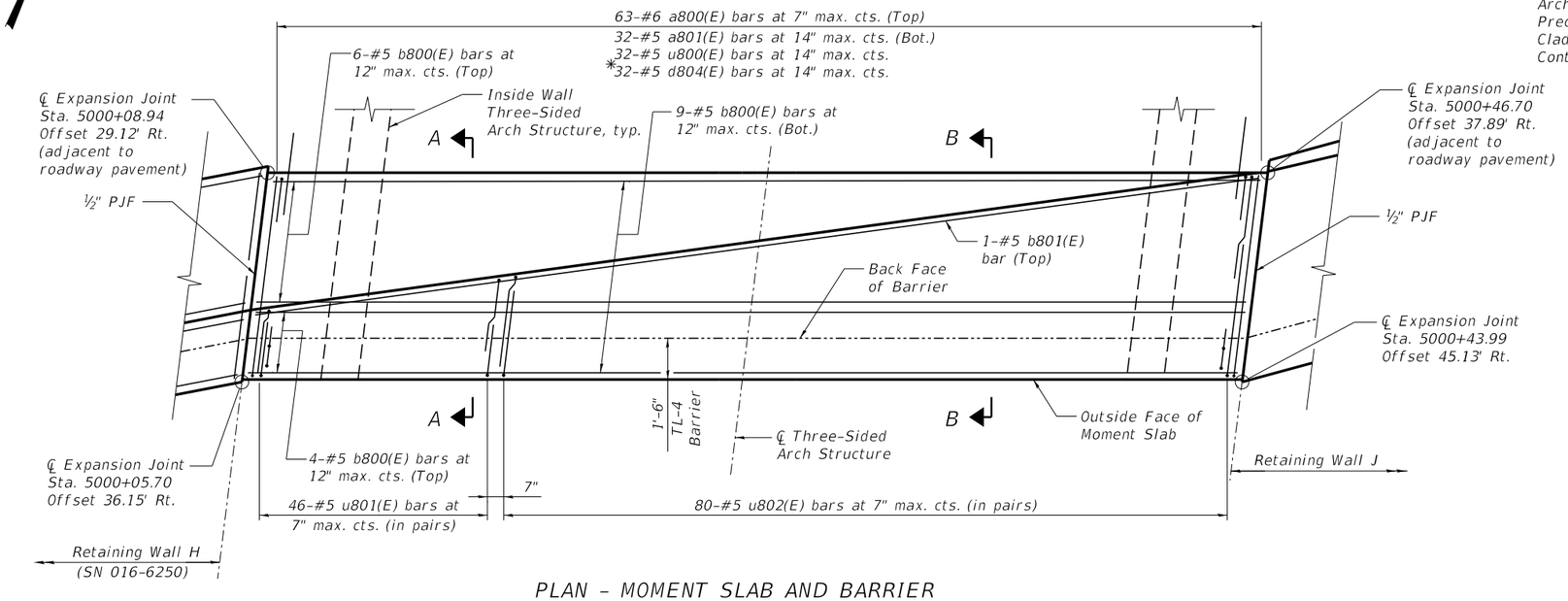


SECTION A-A

(See Typical Section on Sheet SH-24 for more information)

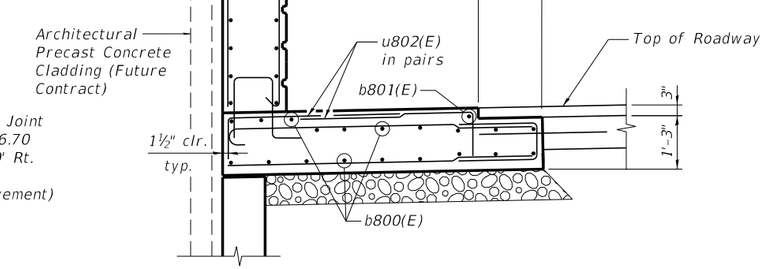
** Dimension varies from 1'-0" to 6'-0"

*** Dimension varies from 5'-0" to 0"



PLAN - MOMENT SLAB AND BARRIER

(South Headwall)



SECTION B-B

(See Typical Section on Sheet SH-24 for more information)

NOTES:

1. See Sheet SH-24 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab unless noted otherwise (not including architectural precast concrete cladding).
5. See Sheet SH-13 for Top of Barrier and Top of Roadway elevations.
6. Gutter width varies as shown in Plan and Sections A-A and B-B. See Civil plans for additional geometric information.

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FILE NAME = ABC-sht-6291-momslab-001.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

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MOMENT SLAB PLAN AND ELEVATION (1 OF 7)
STRUCTURE NO. 016-6291
SHEET NO. SH-17 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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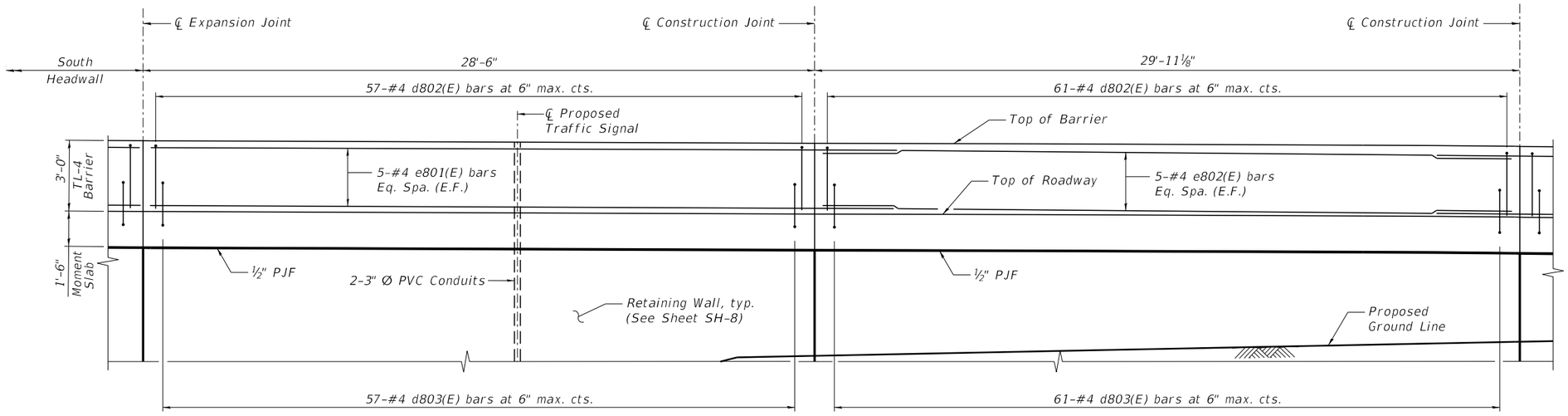
CDOT PROJECT NO.	B-7-203	SN 016-6291		
	ILLINOIS FED. AID PROJECT			



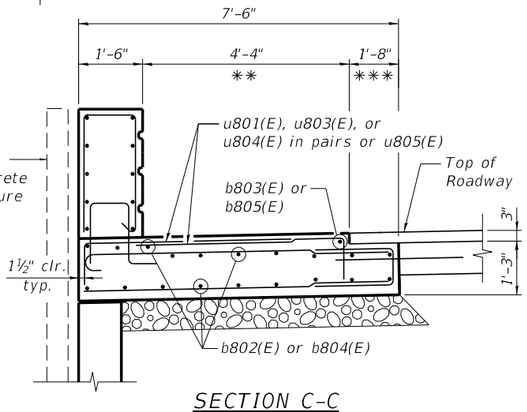
NOTES:

1. See Sheet SH-24 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SH-24 for conduit details and additional notes.
6. See Sheet SH-13 for Top of Barrier and Top of Roadway elevations.
7. Gutter width varies as shown in Plan and Section C-C. See Civil plans for additional information.

ELEVATION - MOMENT SLAB AND BARRIER

(Retaining Wall J - Sections 1 & 2)

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

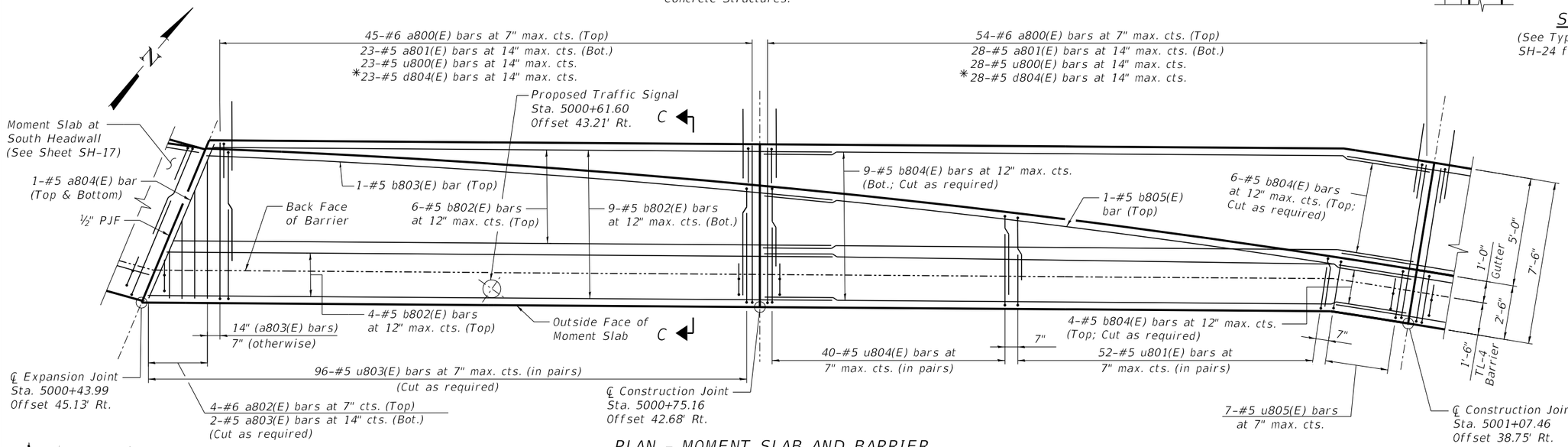


**Dimension varies from 1'-0" to 5'-7½"

***Dimension varies from 5'-0" to 4½"

SECTION C-C

(See Typical Section on Sheet SH-24 for more information)



PLAN - MOMENT SLAB AND BARRIER

(Retaining Wall J - Sections 1 & 2)

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

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FILE NAME =	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
ABC-sht-6291-momslab-002.dgn	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (2 OF 7)
STRUCTURE NO. 016-6291
SHEET NO. SH-18 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1105
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS FED. AID PROJECT				

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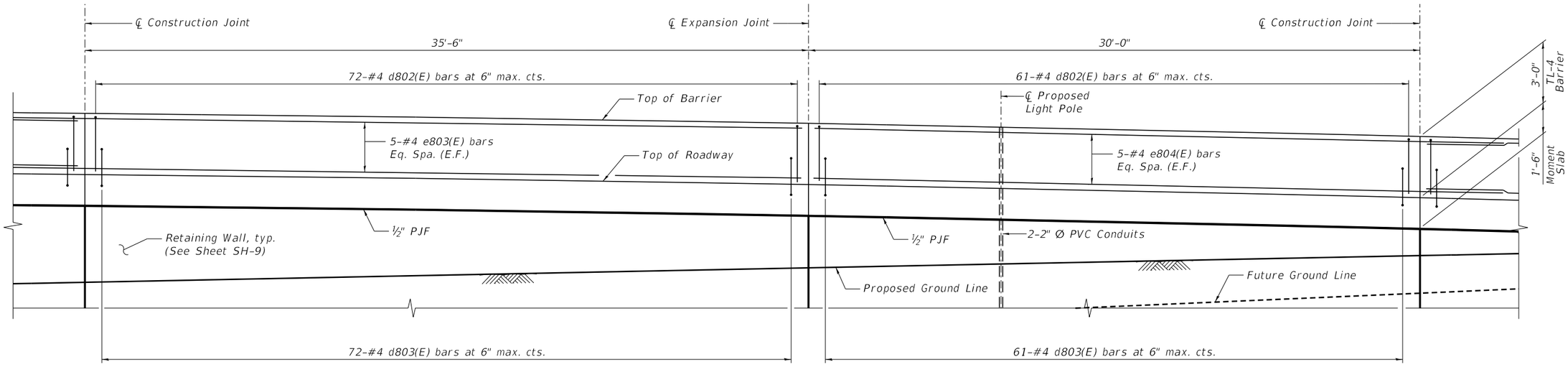


ELEVATION – MOMENT SLAB AND BARRIER

(Retaining Wall J – Sections 3 & 4)

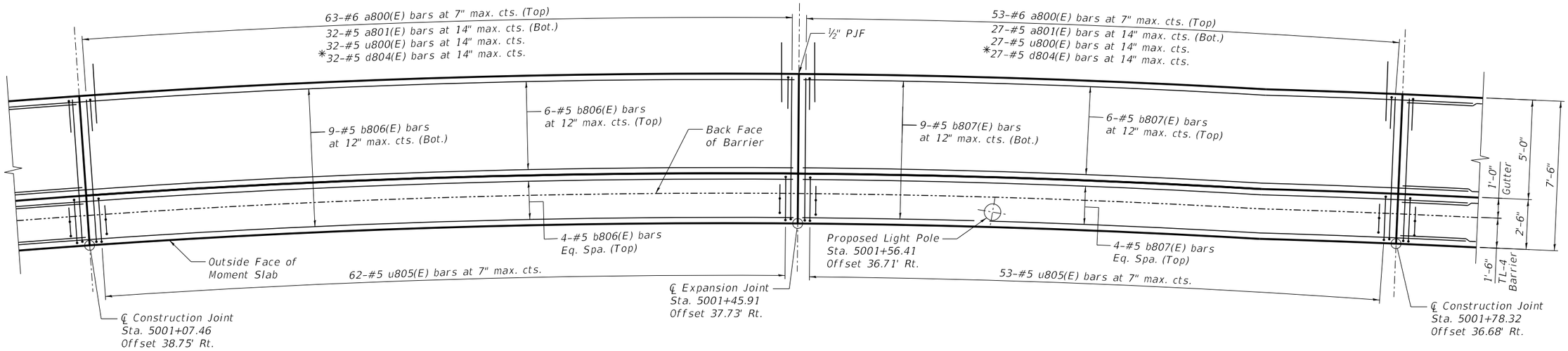
*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SH-24 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SH-24 for conduit details and additional notes.
6. See Sheet SH-13 for Top of Barrier and Top of Roadway elevations.



PLAN – MOMENT SLAB AND BARRIER

(Retaining Wall J – Sections 3 & 4)

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FILE NAME = ABC-sht-6291-momslab-003.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
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	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (3 OF 7)
STRUCTURE NO. 016–6291
SHEET NO. SH-19 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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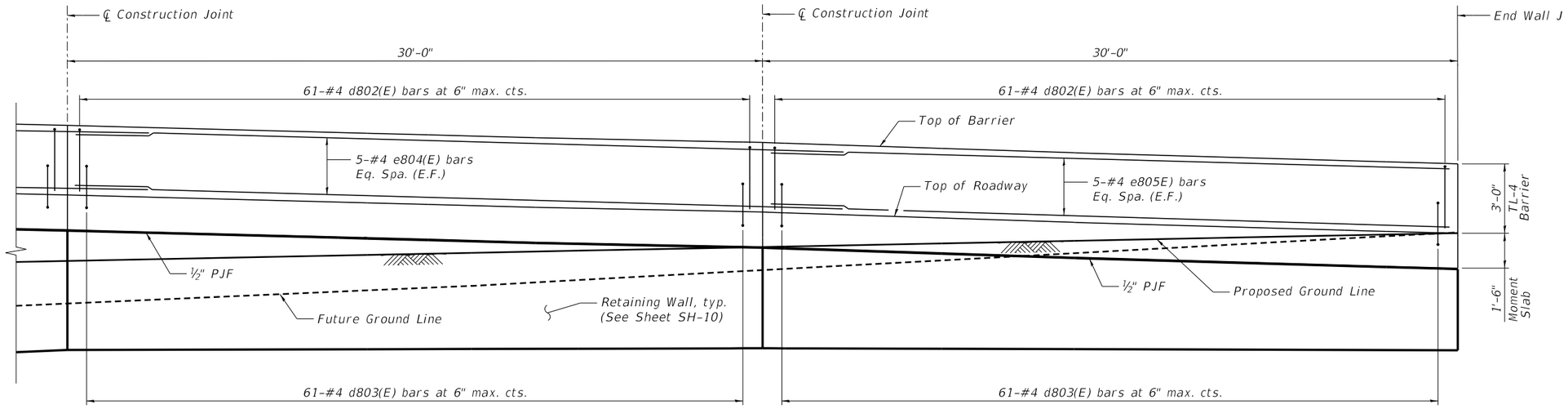
CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				



ELEVATION - MOMENT SLAB AND BARRIER

(Retaining Wall J - Sections 5 & 6)

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

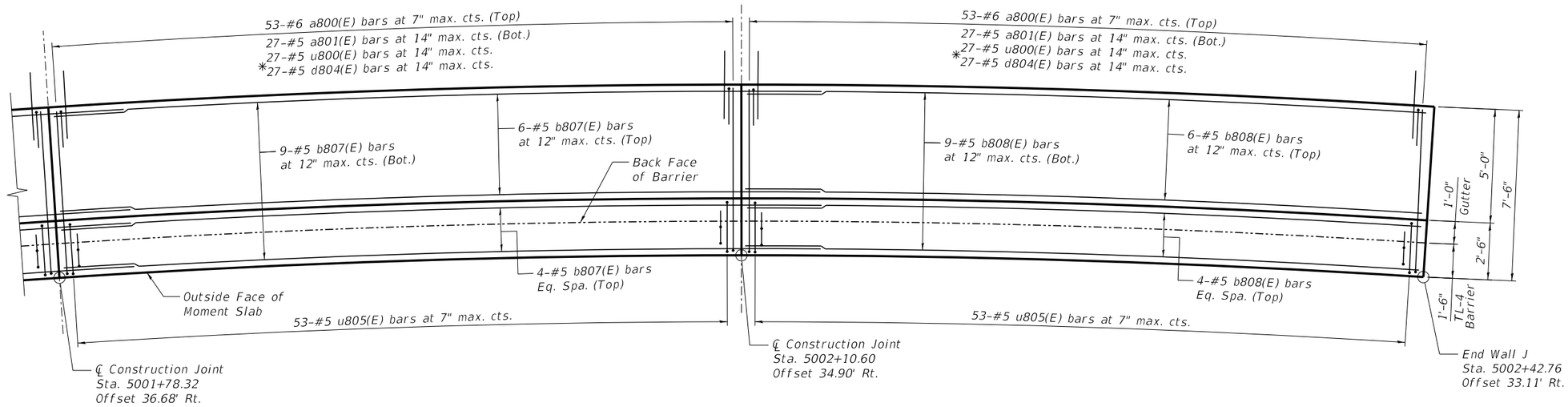
MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SH-24 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SH-13 for Top of Barrier and Top of Roadway elevations.

N



PLAN - MOMENT SLAB AND BARRIER

(Retaining Wall J - Sections 5 & 6)

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FILE NAME = ABC-sht-6291-momslab-004.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (4 OF 7)
STRUCTURE NO. 016-6291
SHEET NO. SH-20 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1107
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS	FED. AID PROJECT			

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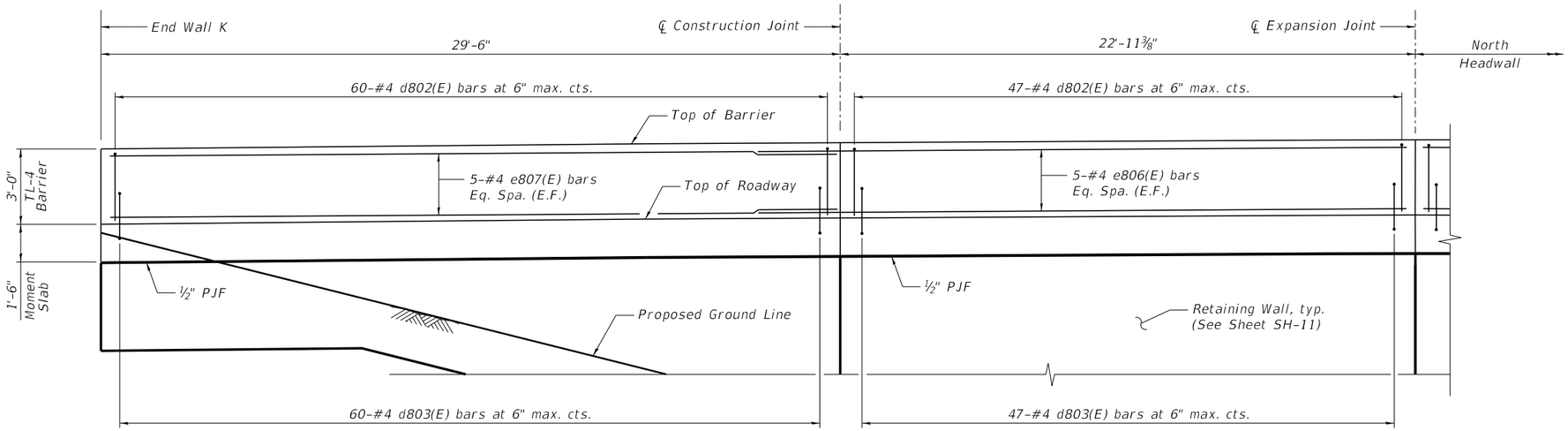
4/20/2020



ELEVATION - MOMENT SLAB AND BARRIER

(Retaining Wall K)

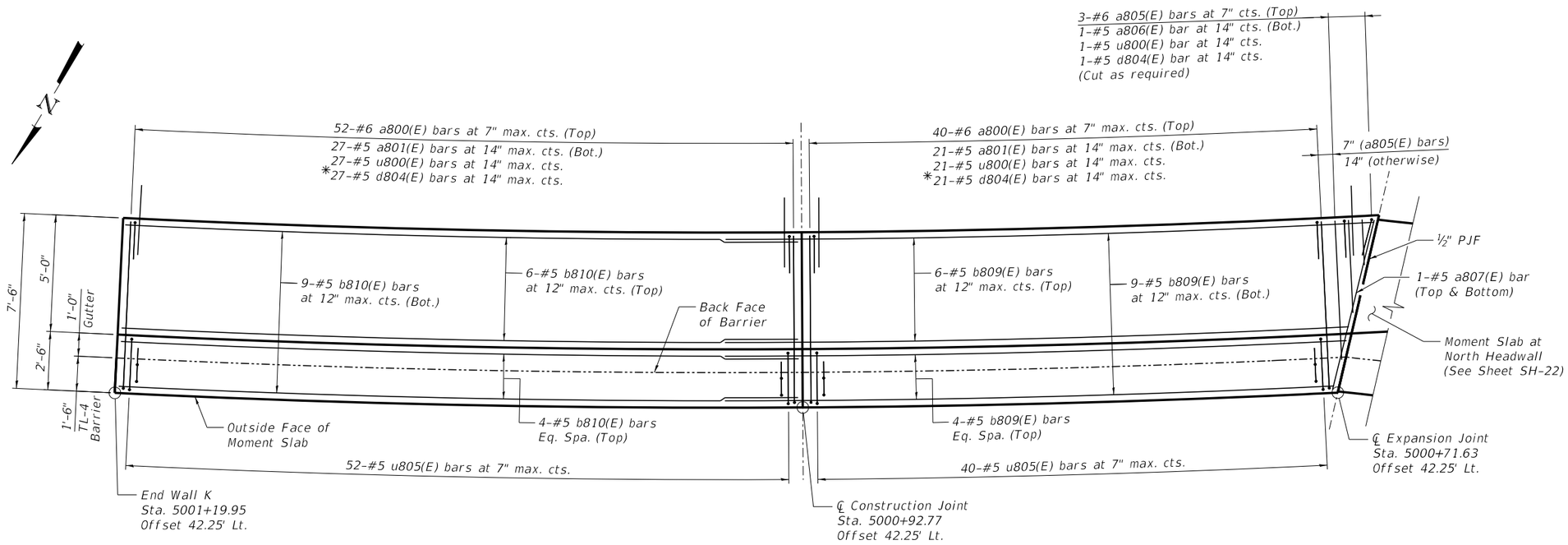
*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SH-24 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SH-13 for Top of Barrier and Top of Roadway elevations.



PLAN - MOMENT SLAB AND BARRIER

(Retaining Wall K)

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FILE NAME = ABC-sht-6291-momslab-005.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (5 OF 7)
STRUCTURE NO. 016-6291
SHEET NO. SH-21 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1108
	CDOT PROJECT NO. B-7-203		SN 016-6291	
	ILLINOIS FED. AID PROJECT			

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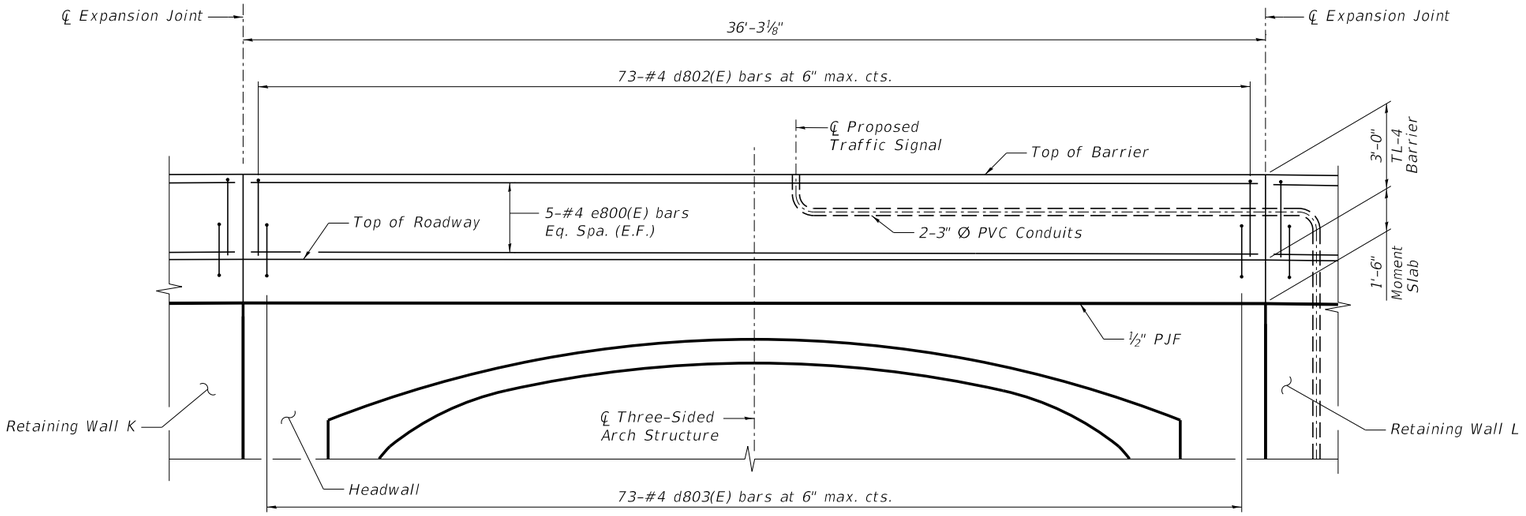
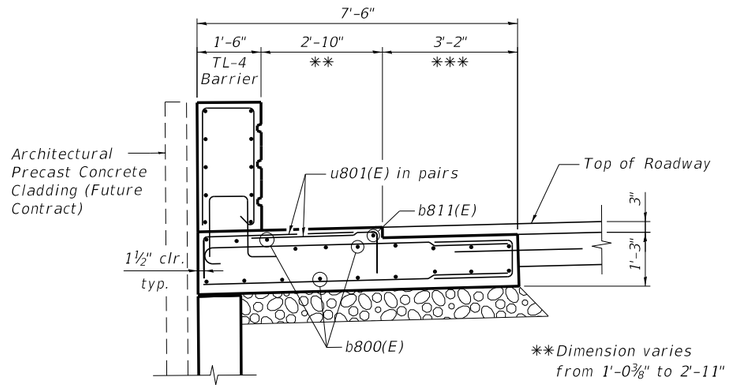
4/20/2020



ELEVATION – MOMENT SLAB AND BARRIER

(North Headwall)



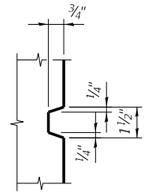
SECTION D-D

(See Typical Section on Sheet SH-24 for more information, Traffic Signal not shown for clarity)

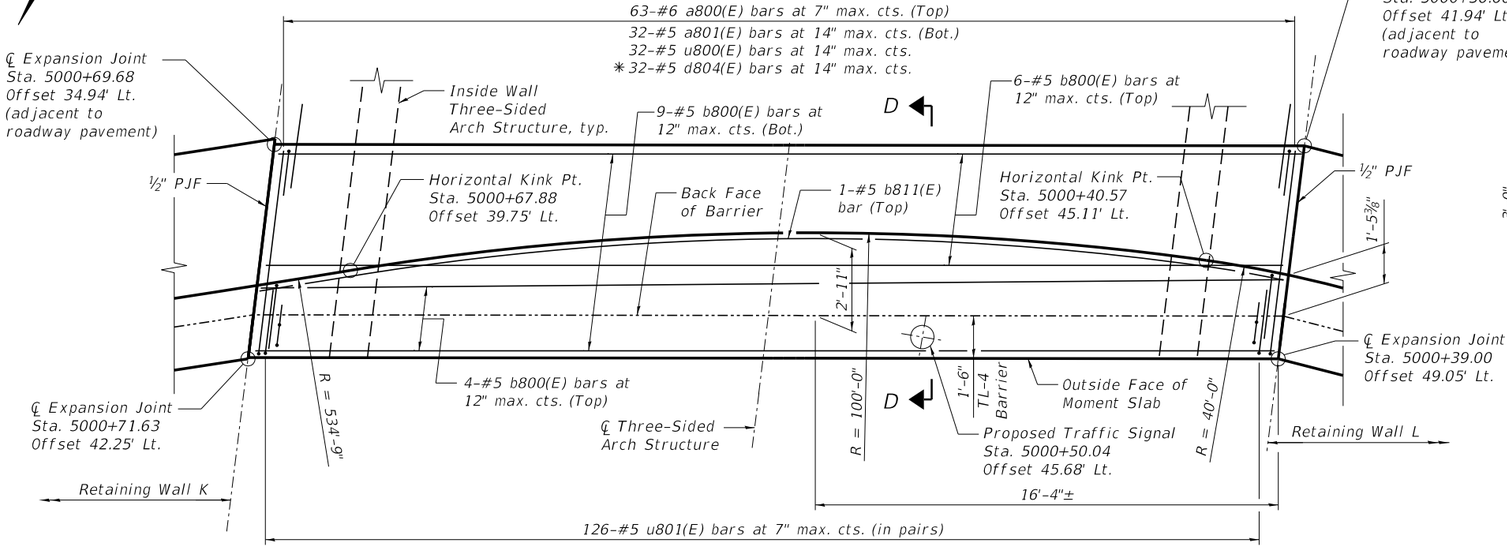
*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

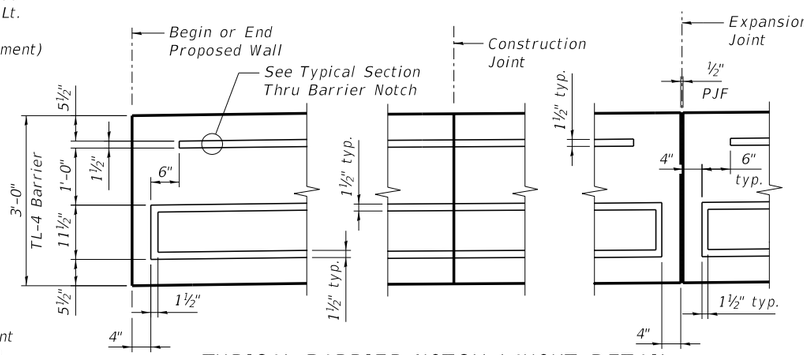


TYPICAL SECTION THRU BARRIER NOTCH



PLAN – MOMENT SLAB AND BARRIER

(North Headwall)



TYPICAL BARRIER NOTCH LAYOUT DETAIL

NOTES:

1. See Sheet SH-24 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab unless noted otherwise (not including architectural precast concrete cladding).
5. See Sheet SH-12 for continuation of conduit within wingwall.
6. See Sheet SH-24 for conduit details and additional notes.
7. See Sheet SH-13 for Top of Barrier and Top of Roadway elevations.
8. Gutter width varies as shown in Plan and Section D-D. See Civil plans for additional geometric information.

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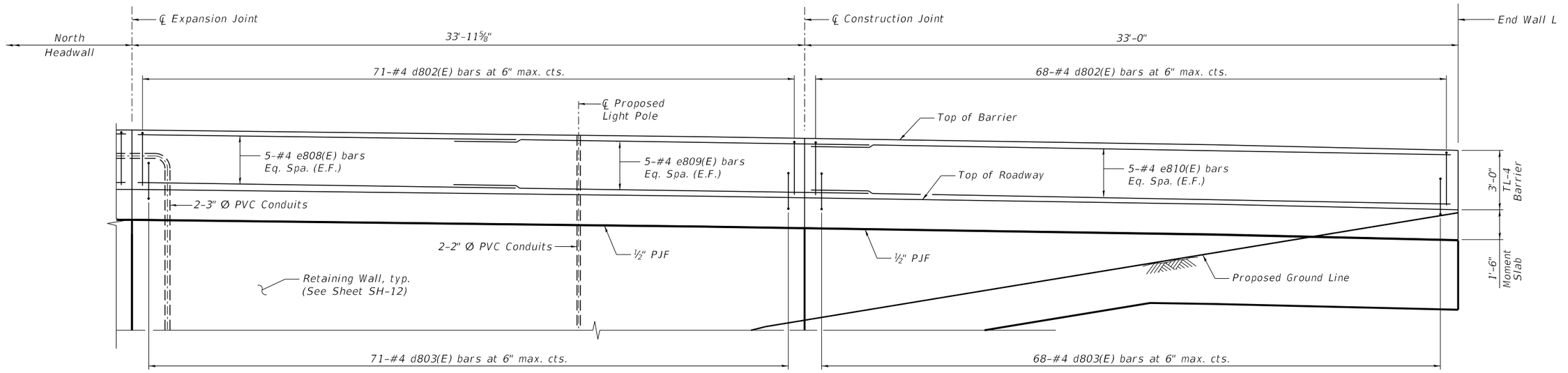
FILE NAME = ABC-sht-6291-momslab-006.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 6/26/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (6 OF 7)
STRUCTURE NO. 016-6291
SHEET NO. SH-22 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1109
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS FED. AID PROJECT				



ELEVATION - MOMENT SLAB AND BARRIER

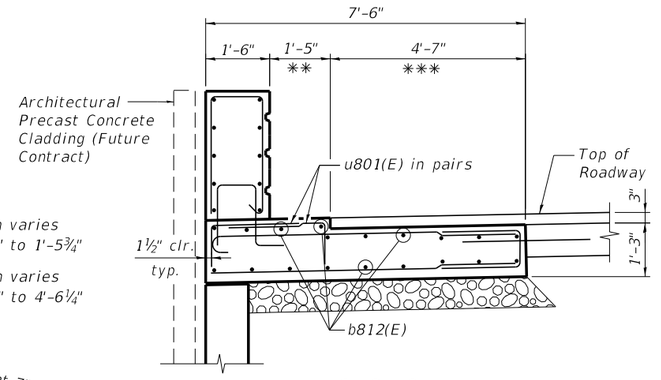
(Retaining Wall L)

NOTES:

1. See Sheet SH-24 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Hayes Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SH-22 for continuation of conduit within barrier.
6. See Sheet SH-24 for conduit details, light pole details, and additional notes.
7. See Sheet SH-13 for Top of Barrier and Top of Roadway elevations.
8. Gutter width varies as shown in Plan and Section E-E. See Civil plans for additional geometric information.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"



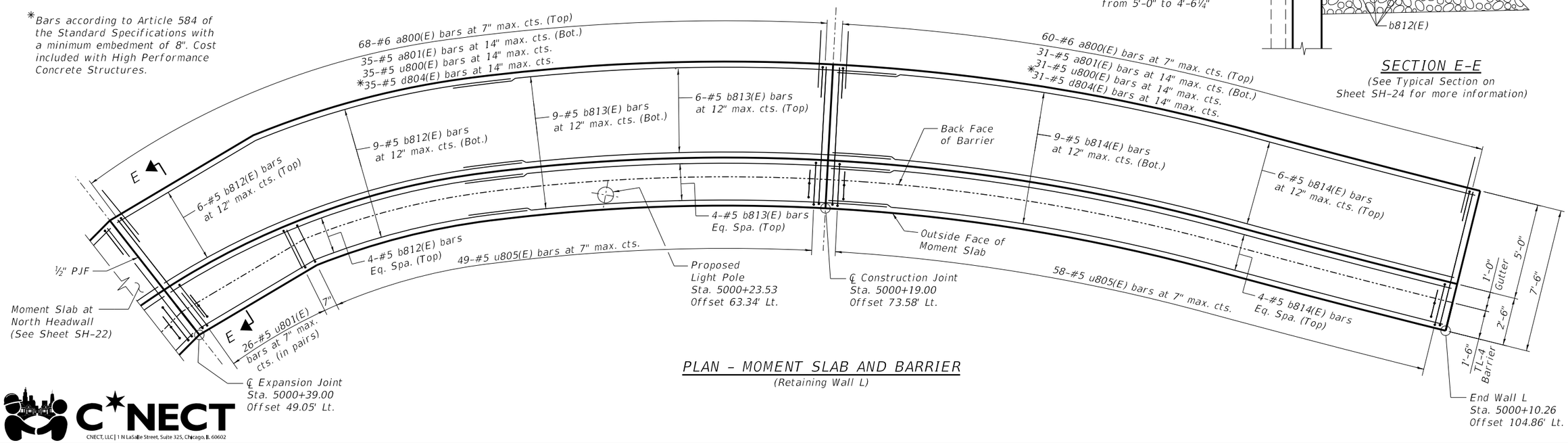
**Dimension varies from 1'-0" to 1'-5¾"

***Dimension varies from 5'-0" to 4'-6¼"

SECTION E-E

(See Typical Section on Sheet SH-24 for more information)

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.



PLAN - MOMENT SLAB AND BARRIER

(Retaining Wall L)

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FILE NAME = ABC-sht-6291-momslab-007.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (7 OF 7)
STRUCTURE NO. 016-6291
SHEET NO. SH-23 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1110
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS FED. AID PROJECT				

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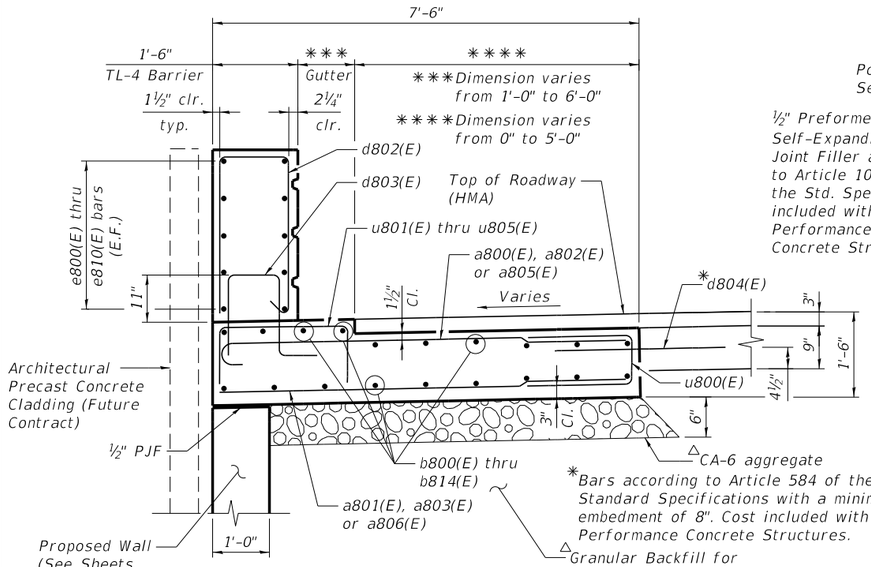
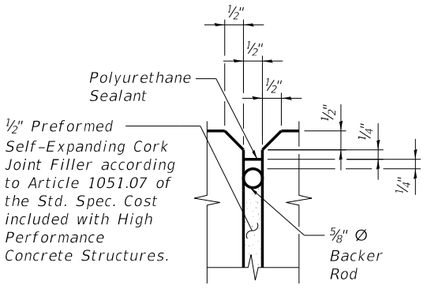


TYPICAL SECTION

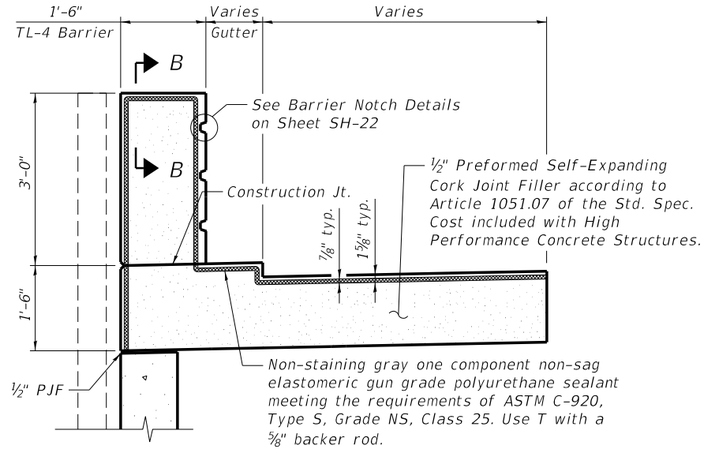
*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

△Granular Backfill for Structures (Compacted)

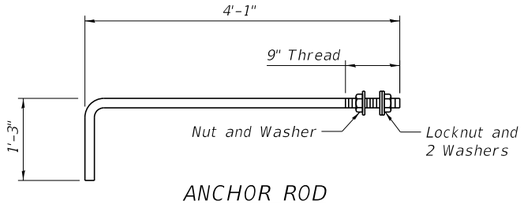


SECTION B-B

△Backfill shall be placed per Article 586 of the 2019 Supplemental Specifications except mechanical compaction shall be required per Articles 502 and 205 of the Standard Specifications. Cost of CA-6 aggregate specific layer below moment slab included with Granular Backfill for Structures.

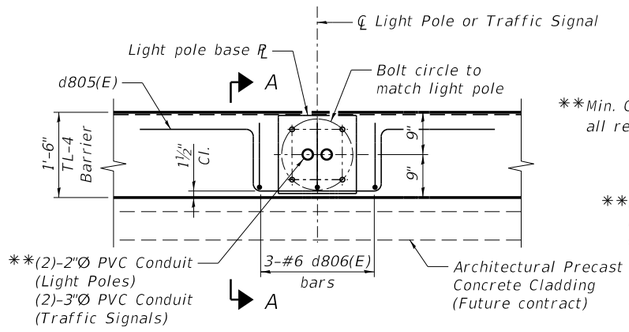


FULL HEIGHT EXPANSION JOINT DETAILS

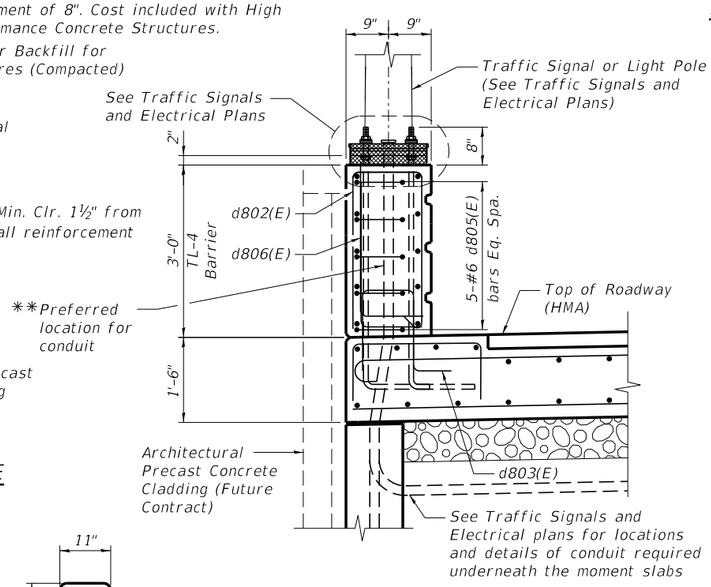


ANCHOR ROD

(Diameter as specified for light poles and traffic signals, ASTM F1554, Grade 105, full length hot dip galvanized)



PLAN – LIGHT POLE AND TRAFFIC SIGNAL BASE



SECTION A-A

BILL OF MATERIAL

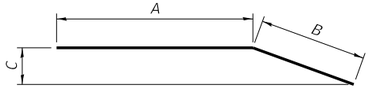
Bar	No.	Size	Length	Shape
a800(E)	667	#6	7'-11"	
a801(E)	342	#5	7'-3"	
a802(E)	4	#6	6'-6"	
a803(E)	2	#5	4'-5"	
a804(E)	2	#5	7'-10"	
a805(E)	3	#6	5'-10"	
a806(E)	1	#5	3'-2"	
a807(E)	2	#5	7'-6"	
b800(E)	38	#5	36'-0"	
b801(E)	1	#5	36'-9"	
b802(E)	19	#5	32'-6"	
b803(E)	1	#5	29'-7"	
b804(E)	19	#5	30'-10"	
b805(E)	1	#5	30'-2"	
b806(E)	19	#5	40'-1"	
b807(E)	38	#5	34'-4"	
b808(E)	19	#5	30'-3"	
b809(E)	19	#5	29'-1"	
b810(E)	19	#5	29'-3"	
b811(E)	1	#5	36'-3"	
b812(E)	19	#5	23'-7"	
b813(E)	19	#5	23'-9"	
b814(E)	19	#5	34'-1"	
d802(E)	765	#4	7'-1"	
d803(E)	765	#4	4'-5"	
d804(E)	343	#5	3'-0"	
d805(E)	20	#6	8'-5"	
d806(E)	12	#6	3'-7"	
e800(E)	20	#4	36'-0"	
e801(E)	10	#4	31'-4"	
e802(E)	10	#4	29'-8"	
e803(E)	10	#4	38'-5"	
e804(E)	20	#4	32'-11"	
e805(E)	10	#4	29'-10"	
e806(E)	10	#4	25'-11"	
e807(E)	10	#4	29'-3"	
e808(E)	10	#4	20'-3"	
e809(E)	10	#4	20'-1"	
e810(E)	10	#4	33'-0"	
u800(E)	343	#5	4'-9"	
u801(E)	250	#5	3'-5"	
u802(E)	80	#5	5'-0"	
u803(E)	96	#5	4'-9"	
u804(E)	40	#5	4'-0"	
u805(E)	427	#5	4'-5"	
High Performance Concrete Structures		Cu. Yd.	206.5	
Protective Concrete Sealer		Sq. Yd.	276	
Reinforcement Bars, Epoxy Coated		Pound	34,500	

NOTES:

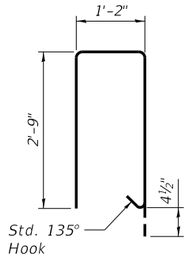
1. See Traffic Signals and Electrical plans for traffic signal and lighting details.
2. Cost of bond breaker, PJF, backer rod and sealant included with the cost of High Performance Concrete Structures.
3. Cost of anchor rods included with High Performance Concrete Structures.
4. Protective Concrete Sealer shall be applied to the entire top surface and inside vertical face of proposed barrier along with the entire top surface of the exposed gutter of the proposed moment slab.
5. See Sheet SH-22 for barrier notch details.

BAR DIMENSIONS

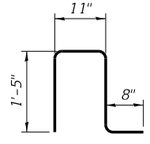
BAR	A	B	C
b804(E)	26'-9"	4'-1"	7"
b812(E)	15'-1"	8'-6"	2'-7"
e802(E)	26'-2"	3'-6"	6"
e808(E)	13'-0"	7'-3"	2'-3"



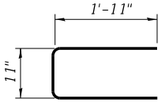
BARS b804(E), b812(E), e802(E) & e808(E)



BAR d802(E)



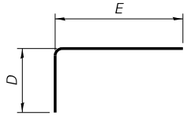
BAR d803(E)



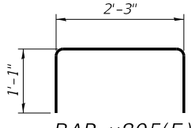
BAR u800(E)

BAR DIMENSIONS

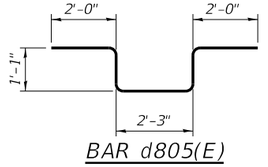
BAR	D	E
d806(E)	1'-0"	2'-7"
u801(E)	1'-1"	2'-4"
u802(E)	1'-1"	3'-11"
u803(E)	1'-1"	3'-8"
u804(E)	1'-1"	2'-11"



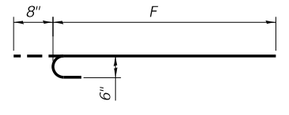
BARS d806(E), u801(E), u802(E), u803(E), & u804(E)



BAR u805(E)



BAR d805(E)



BARS a800(E), a802(E) & a805(E)

BAR DIMENSIONS

BAR	F
a800(E)	7'-3"
a802(E)	5'-10"
a805(E)	5'-2"

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6291-momdetails.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB DETAILS AND BILL OF MATERIAL
STRUCTURE NO. 016-6291
SHEET NO. SH-24 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1111
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS FED. AID PROJECT				

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GGG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/25/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863470.248 Easting 1188487.966

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B02
Station 4012+31
Offset 9.00ft LT
Ground Surface Elev. 8.15 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.2 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
7.86						
3.5 inches of Asphalt 9 inches of Concrete						
7.11						
Crushed Stone		10				
		15 16		2		
4.65						
Loose to Medium Dense Brown, Moist to Wet SAND, trace silt (SP)		2				
		2 3		7		
-5						
		4				
0.15		7 7		24		
Medium Dense Gray, Very Moist SILT, with sand (ML)		7				
		8 9		26		
-10						
-2.35						
Loose to Medium Dense Gray, Wet SILTY SAND (SM)		4				
		9 11		20		
		2				
		4 7		19		
-15						
		2				
-8.35						
Very Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		2 3	0.2 B	24		
		1				
		2 2	0.4 B	22		
-20						

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)

GGG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/25/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863470.248 Easting 1188487.966

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B02
Station 4012+31
Offset 9.00ft LT
Ground Surface Elev. 8.15 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.2 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		2				
		2 3	0.2 B	21		
		1				
-25						
		2 3	0.4 B	21		
		3				
		3 4	1.0 B	19		
		2				
-21.85		3 4	1.5 B	18		
-30						
End of Boring						
-35						
-40						

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)

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SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863436.876 Easting 1188544.137

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B03
Station 4012+95
Offset 15.60ft LT
Ground Surface Elev. 7.98 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 3.5 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
9 inches of Topsoil						
7.23						
Brown, Moist FILL: SAND, trace gravel		3				
		6 9		9		
4.48						
Loose to Medium Dense Brown and Gray, Wet SILTY SAND, trace gravel (SM)		2				
		2 3		21		
-5						
Silt seam at 6 ft		2				
		5 6		25		
-0.02						
Medium Dense Gray, Very Moist SILTY LOAM (ML)		6				
		6 7		32		1.2
-2.02						
-10						
Medium Dense Gray, Wet SANDY LOAM (SM)		7				
		8 9		25		
-5.02						
Medium Dense Gray, Wet SILTY SAND, (SM)		7				
		7 6		18		
-15						
-8.52		5				
Very Soft to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		2 2	0.2 B	20		
		1				
		2 2	0.4 B	18		
-20						

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)

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6291-boring-001.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (1 OF 6)
STRUCTURE NO. 016-6291
SHEET NO. SH-25 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1112
CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS	FED. AID PROJECT			

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GGC CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863436.876 Easting 1188544.137

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B03
Station 4012+95
Offset 15.60ft LT
Ground Surface Elev. 7.98 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 3.5 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
Very Soft to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		1					
		2 2	0.4 B	20			
		3					
-25		4 5	1.0 B	17			
		2					
		4 5	1.0 B	19			
		3					
-30		3 6	2.7 B	17			
		6 7 8	6.7 B	12			
-35		6 8 8	6.7 B	14			
-40							

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)

GGC CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863436.876 Easting 1188544.137

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B03
Station 4012+95
Offset 15.60ft LT
Ground Surface Elev. 7.98 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 3.5 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
Very Soft to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		5					
-39.02	-45	6 8	5.0 B	14			
Medium Dense Gray, Moist SILT (ML)		6					
-42.02	-50	10 10	6.0 P	12			
End of Boring							
	-55						
	-60						

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)

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SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863459.408 Easting 1188598.477

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B04
Station 5000+57
Offset 58.20ft LT
Ground Surface Elev. 7.08 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.1 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
2 inches of Topsoil 6.91		2					
Loose Brown, Wet SAND (SP)		3 4		9			
3.58		2					
Very Loose to Medium Dense Brown, Wet SILTY SAND (SM)	-5	1 3		19			
0.08		2					
Loose to Medium Dense Gray, Very Moist SILTY LOAM (ML)		5 6		26			
	-10	2 6 7		28			
Sand seam at 11.5 ft		6 8 9		28			
		4					
	-15	2 2 2		26			
-8.92		2					
Medium Stiff to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		2 2	0.6 B	24			
	-20	ST		22			

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)

C*NECT
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FILE NAME = ABC-sht-6291-boring-002.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (2 OF 6)
STRUCTURE NO. 016-6291
SHEET NO. SH-26 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1113
CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

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SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863459.408 Easting 1188598.477

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B04
Station 5000+57
Offset 58.20ft LT
Ground Surface Elev. 7.08 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.1 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
		2				
		3 3	1.0 B	18		
		2				
-25		3 4	1.0 B	18		
		3				
		4 5	1.3 B	18		
		3				
-30		4 4	1.3 B	17		
		7				
-35		7 10	8.0 P	12		
		6				
-40		8 12	8.0 P	13		

Medium Stiff to Stiff
Gray, Moist
SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*

-26.42

Hard
Gray, Moist
SILTY CLAY, trace sand and gravel (CL/ML)

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)

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SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863459.408 Easting 1188598.477

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B04
Station 5000+57
Offset 58.20ft LT
Ground Surface Elev. 7.08 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.1 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
		14				
-45		14 12	7.5 P	11		
		11				
-50		8 13	6.3 B	16		
-55						
-60						

Hard
Gray, Moist
SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*

-42.92

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)

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SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863475.943 Easting 1188700.642

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B05
Station 5001+48
Offset 25.40ft LT
Ground Surface Elev. 7.45 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.5 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
		3				
		3 4		10		
		1				
-5		1 2		27		
		2				
-10		3 6		28		
		2				
		5 6		27		
		4				
-15		8 10		22		
		4				
		6 3		25		
		1				
		1 1	0.2	27		
		1				
-20		2 3	0.2	20	118.9	

3 inches of Topsoil 7.20

Brown, Moist
FILL: SAND

3.45

Brown and Gray, Very Moist
FILL: SILTY CLAY, trace sand and gravel 2.95

Very Loose to Loose
Gray and Brown, Wet
SILTY SAND (SM)

-1.55

Loose to Medium Dense
Gray, Wet
SILTY SAND (SM)

-6.55

Loose
Gray, Very Moist
SILT, trace sand and gravel (ML)

-9.05

Very Soft to Stiff
Gray, Moist to Very Moist
SILTY CLAY, trace sand and gravel (CL/ML)

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)

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FILE NAME = ABC-sht-6291-boring-003.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (3 OF 6)
STRUCTURE NO. 016-6291
SHEET NO. SH-27 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1114
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS FED. AID PROJECT				

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GGC CONSULTANTS, INC.
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SOIL BORING LOG

Page 2 of 2
Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB
SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863475.943 Easting 1188700.642
COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41
BORING NO. Hayes-Drive-B05
Station 5001+48
Offset 25.40ft LT
Ground Surface Elev. 7.45 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.5 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Stiff Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		2				
		3 4	1.0	18		
		3				
-25		3 4	1.9	17		
		2				
		3 4	1.5	17		
		2				
-22.55		4 4	1.3	19		
-30 End of Boring						
-35						
-40						

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)

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SOIL BORING LOG

Page 1 of 3
Date 7/27/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB
SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863384.419 Easting 1188721.628
COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41
BORING NO. Hayes-Drive-B06
Station 5001+30
Offset 67.00ft RT
Ground Surface Elev. 7.45 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.0 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
7.04 5 inches of Topsoil						
Brown, Gray, and Black FILL: SILTY SAND, trace crushed stone and brick fragments 5.95		3				
Brown, Moist FILL: SAND, trace silt		3 20		12		
2.95		2				
Very Loose to Medium Dense Brown, Wet SILTY SAND (SM)		1 1		27		
0.45		4				
Medium Dense Gray, Wet SILTY SAND (SM)		5 6		28		
		7				
-6.05		8 9		25		
		6				
		8 7		28		
Loose Gray, Very Moist SILTY LOAM (ML)		5 3 2		25		
-9.05		1				
Very Soft to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		1 2	0.2 B	25		
		1				
-20		1 2	0.4 B	22	113.7	

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)

GGC CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Page 2 of 3
Date 7/27/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB
SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863384.419 Easting 1188721.628
COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41
BORING NO. Hayes-Drive-B06
Station 5001+30
Offset 67.00ft RT
Ground Surface Elev. 7.45 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.0 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		1				
		2 2	0.4 B	23		
		2				
-25		3 4	2.1 B	18		
		2				
		4 4	1.0 B	17		
		2				
-30		3 4	2.1 B	17		
-26.05 Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		7				
		7 8	6.3 B	12		
-35		5				
		7 9	6.7 B	13		
-40						

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)

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FILE NAME = ABC-sht-6291-boring-004.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (4 OF 6)
STRUCTURE NO. 016-6291
SHEET NO. SH-28 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1115
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS FED. AID PROJECT				

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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/27/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863384.419 Easting 1188721.628

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B06
Station 5001+30
Offset 67.00ft RT
Ground Surface Elev. 7.45 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.0 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		7					
-45		9 11	5.4 B	12			
		8					
-42.55	-50	10 14	7.1 B	12			
End of Boring							
	-55						
	-60						

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)

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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/7/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863360.064 Easting 1188611.052

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B16
Station 5000+11
Offset 30.10ft RT
Ground Surface Elev. 6.27 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 0.3 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
10 inches of Topsoil		2					
5.44 Brown, Moist FILL: SILTY SAND, trace gravel		2 2		15			
2.27		2					
Loose Brown and Gray, Wet SILTY SAND (SM)	-5	2 3		23			
0.27 ▼ Loose to Medium Dense Brown and Gray, Wet SANDY LOAM (SM)		2 2 3		27			
-2.23 Medium Dense Gray, Wet SILTY SAND (SM)	-10	3 3 8		25			
		5 6 6		23			
-7.73 Very Soft to Stiff Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL)	-15	1 1 2	0.2 B	26			
		1 1 1	0.2 B	26	101.5		
	-20	0 1 3	0.4 B	23			

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)

GGC CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/7/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863360.064 Easting 1188611.052

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B16
Station 5000+11
Offset 30.10ft RT
Ground Surface Elev. 6.27 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 0.3 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
Very Soft to Stiff Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL) *(continued)*		2					
		3 5	0.8 B	21			
		2					
-25		3 4	1.7 B	18			
		1					
		3 4	1.7 B	18			
		2					
-30		3 4	1.3 B	18			
-25.73 Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		4					
		7 8	6.3 P	12			
-35							
		5					
	-40	7 9	4.4 B	14			

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)

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FILE NAME = ABC-sht-6291-boring-005.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
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	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (5 OF 6)
STRUCTURE NO. 016-6291
SHEET NO. SH-29 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1116
CDOT PROJECT NO. B-7-203		SN 016-6291		
ILLINOIS FED. AID PROJECT				

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GG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/7/18

ROUTE F.A.U. 1520 **DESCRIPTION** Hayes & Cornell **LOGGED BY** YB

SECTION 17-B7203-00-ES **LOCATION** Hayes & Cornell **Northing** 1863360.064 **Easting** 1188611.052

COUNTY Cook **DRILLING METHOD** HSA **HAMMER TYPE** AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B16
Station 5000+11
Offset 30.10ft RT
Ground Surface Elev. 6.27 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 0.3 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*							
-45		5 5 8	6.7 B	13			
-50		14 23 21	4.8 B	13			
-55		12 11 14	5.8 B	11			
-60		17 23 35	7.1 B	10			

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)

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623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/7/18

ROUTE F.A.U. 1520 **DESCRIPTION** Hayes & Cornell **LOGGED BY** YB

SECTION 17-B7203-00-ES **LOCATION** Hayes & Cornell **Northing** 1863360.064 **Easting** 1188611.052

COUNTY Cook **DRILLING METHOD** HSA **HAMMER TYPE** AUTO

STRUCT. NO. 016-6291
Station 5000+41

BORING NO. Hayes-Drive-B16
Station 5000+11
Offset 30.10ft RT
Ground Surface Elev. 6.27 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 0.3 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)	NOTES:
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*							
-56.73							
Auger refusel at 63 ft Limestone - Gray Core Run = 1 (63 to 73) Recovery = 100% RQD = 100% (Excellent)							
-65							
-66.73							
End of Boring							
-70							
-75							
-80							

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)

C*NECT
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FILE NAME = ABC-sht-6291-boring-006.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/20/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

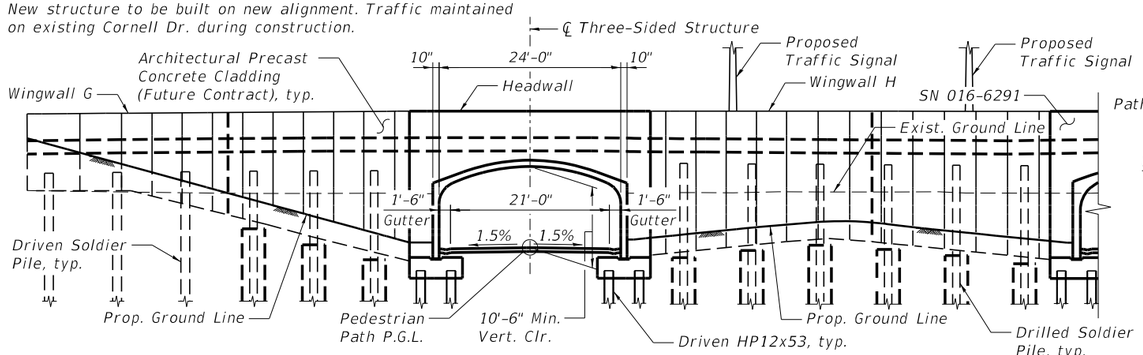
SOIL BORING LOGS (6 OF 6)
STRUCTURE NO. 016-6291
SHEET NO. SH-30 OF 30 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1117
CDOT PROJECT NO.	B-7-203	SN 016-6291		
ILLINOIS	FED. AID PROJECT			

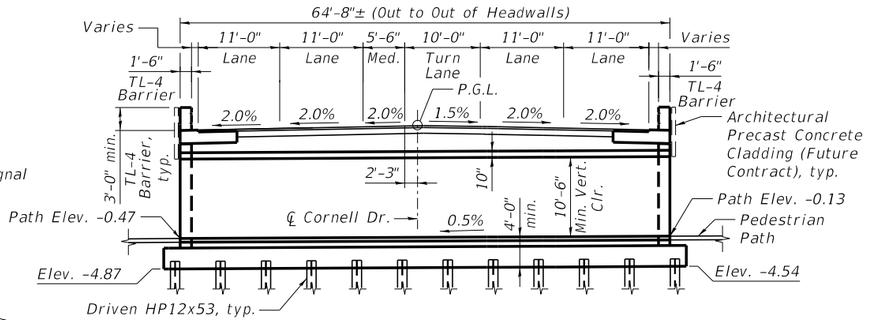
Bench Mark:
Cut square at center of west side of transformer pad about 350' east of Cornell Dr. on north side of 63rd St. and east of driveway north to parking lot. Elevation = 7.51 Chicago City Datum (CCD).

Existing Structure: None.

New structure to be built on new alignment. Traffic maintained on existing Cornell Dr. during construction.

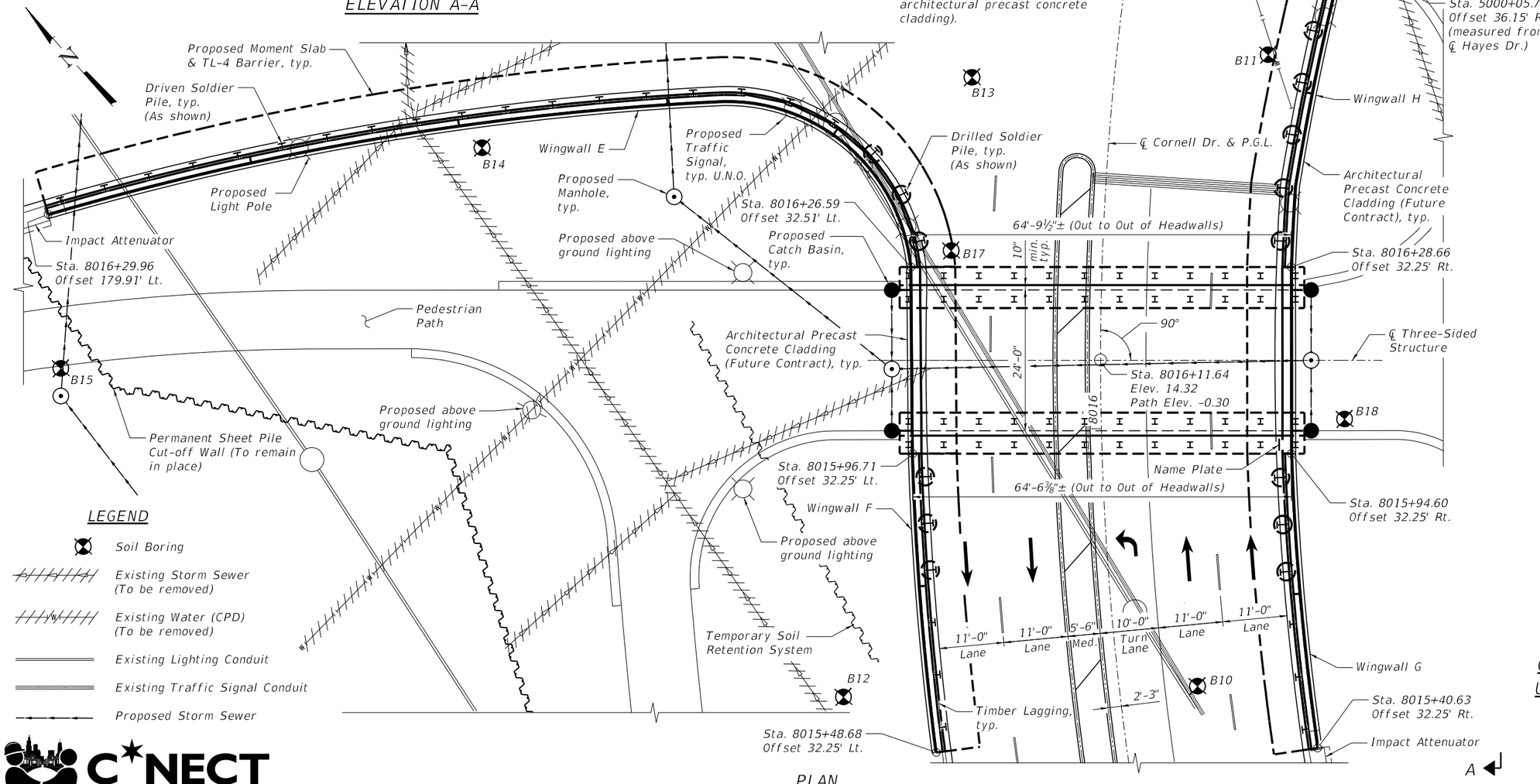


ELEVATION A-A



LONGITUDINAL SECTION
(Thru ℄ Three Sided Structure, Looking North)

NOTE:
Wall stations and offsets are measured from ℄ Cornell Drive to front face of cast-in-place wall (not including architectural precast concrete cladding).



LEGEND

- Soil Boring
- Existing Storm Sewer (To be removed)
- Existing Water (CPD) (To be removed)
- Existing Lighting Conduit
- Existing Traffic Signal Conduit
- Proposed Storm Sewer

PLAN

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

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

WALL DEFLECTION CRITERIA

At any location maximum total lateral deflection at the top of the wall shall not exceed 1.0 inch or 1% exposed height of the wall whichever is minimum.

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)

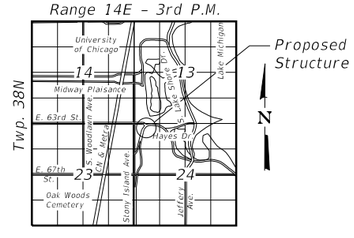
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec (SD_1) = 0.062g
Design Spectral Acceleration at 0.2 sec (SD_S) = 0.110g
Soil Site Class = C

JAMES L. SURBER
081-007741
LICENSED
STRUCTURAL
ENGINEER
STATE OF ILLINOIS

EXPIRATION DATE: 11-30-2022
DATE: 04-02-2020

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
UNDERPASS AT CORNELL DRIVE
SEC. 17-B7203-00-ES
COOK COUNTY
STATION 8016+11.64
STRUCTURE NO. 016-6250

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6250-gpe.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SHEET NO. SI-1 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1118
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. No field welding is permitted except as specified in the contract documents.
3. The foundation design is based on the following maximum factored reactions applied at the top of each of the H-piles:

   148 kips (vertical), 8 kips (horizontal)

   The contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete foundation design with calculations, details, and the required seals shall be submitted for review and approval.
4. The contractor shall furnish all tools, materials and equipment necessary to ensure that the precast units do not incur cracking while being transported to and from the project site, stored during construction and when being installed.
5. Protective Concrete Sealer shall be applied to the entire top surface and inside vertical face of proposed barrier along with the entire top surface of the exposed gutter of the proposed moment slab. All surfaces to be sealed shall be cleaned thoroughly prior to Protective Concrete Sealer application. See Special Provisions.
6. The Contractor must make his/her own investigation to determine the existence, nature and exact location of all utility lines and appurtenances within the limits of the project. The Contractor must provide all measures and precautions necessary to protect existing and new utilities.
7. Groundwater information at this location is included in the geotechnical report. All excavation for structures must be kept dewatered during construction operations until backfill is in place and provisions must be made to prevent the bottom of all excavations from freezing or flooding at all times. This work shall be paid for at the contract lump sum price for Dewatering Location #6. See Special Provisions.
8. Granular Backfill for Structures shall be placed per Article 586 of the 2019 Supplemental Specifications except mechanical compaction shall be required per Articles 502 and 205 of the Standard Specifications.
9. All structural steel shall be AASHTO M270 Grade 50.
10. The Contractor is responsible for the design and performance of the lagging using no less than a 3" nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.
11. Architectural Precast Concrete Cladding is shown for reference only. Architectural Precast Concrete Cladding will be furnished and erected under a separate contract.
12. Slipforming of the barrier is not allowed.
13. See Traffic Signals and Electrical plans for traffic signal and lighting details.
14. See Drainage plans for drainage details.
15. See Civil plans for proposed contours and for proposed pedestrian path profile grade.
16. All reinforcement shall have 1½" of clear cover unless otherwise shown or noted. Clear cover shall be 3" for bottom surfaces formed against earth.
17. Proposed Retaining Walls and Moment Slab are designed for an 89 pcf max. equivalent fluid soil pressure, 240 psf of live load surcharge, MASH TL-4 barrier criteria, and a maximum architectural precast concrete cladding weight of 75 psf.

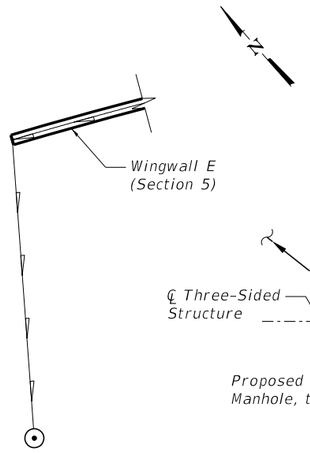
INDEX OF SHEETS

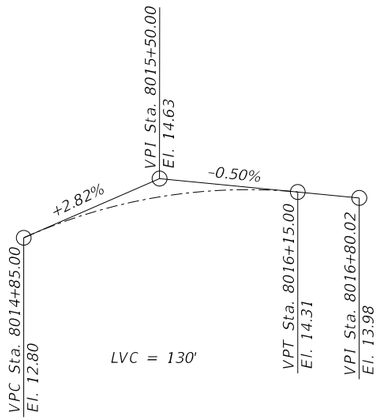
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	4,018
High Performance Concrete Structures	Cu. Yd.	409.6
Protective Concrete Sealer	Sq. Yd.	249
Stud Shear Connectors	Each	814
Reinforcement Bars, Epoxy Coated	Pound	64,630
Furnishing Steel Piles HP12x53	Foot	2,576
Driving Piles	Foot	2,576
Test Pile Steel HP12x53	Each	2
Pile Shoes	Each	72
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	284
Furnishing Soldier Piles (HP Section)	Foot	513
Furnishing Soldier Piles (W Section)	Foot	524
Driving Soldier Piles	Foot	513
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	2,575
Untreated Timber Lagging	Sq. Ft.	1,809
Membrane Waterproofing System for Buried Structures	Sq. Yd.	351
Geocomposite Wall Drain	Sq. Yd.	572
Granular Backfill for Structures	Cu. Yd.	582
Three-Sided Precast Concrete Structures 24'x13'	Foot	65
Pipe Underdrains for Structures, 4"	Foot	527
Dewatering Location #6	L. Sum	0.5

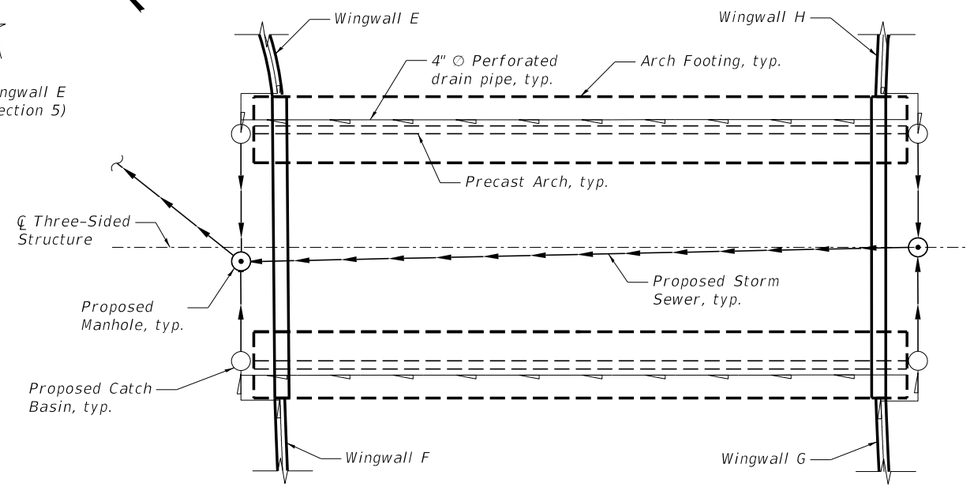
STATION 8016+11.64
BUILT 202_ BY
CITY OF CHICAGO
F.A.P. RT. 341
SEC. 17-B7203-00-ES
LOADING HL-93
STR. NO. 016-6250

NAME PLATE
(See Std. 515001)





PROPOSED PROFILE GRADE
(Along ℄ Cornell Drive)



PLAN - PIPE UNDERDRAIN LAYOUT

NOTES:

1. See Sheets SI-9 to SI-14 for pipe underdrain layout along wingwalls.
2. See Sheet SH-2 for pipe underdrain layout at northeast end of Wingwall H.

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6250-strucnote.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-6250
SHEET NO. SI-2 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1119
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS FED. AID PROJECT				

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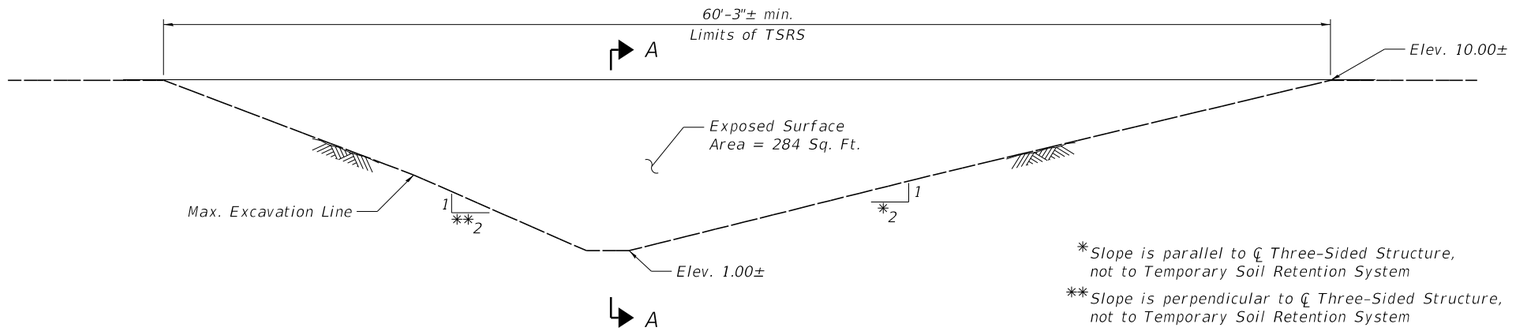
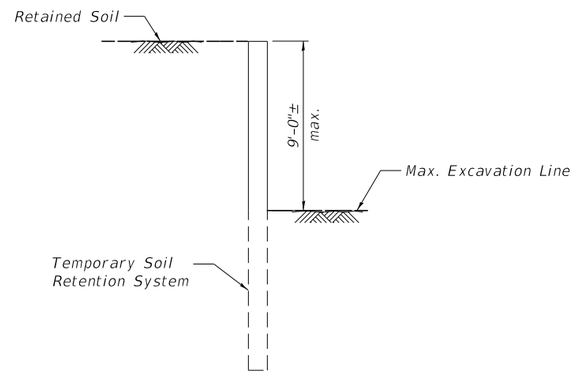


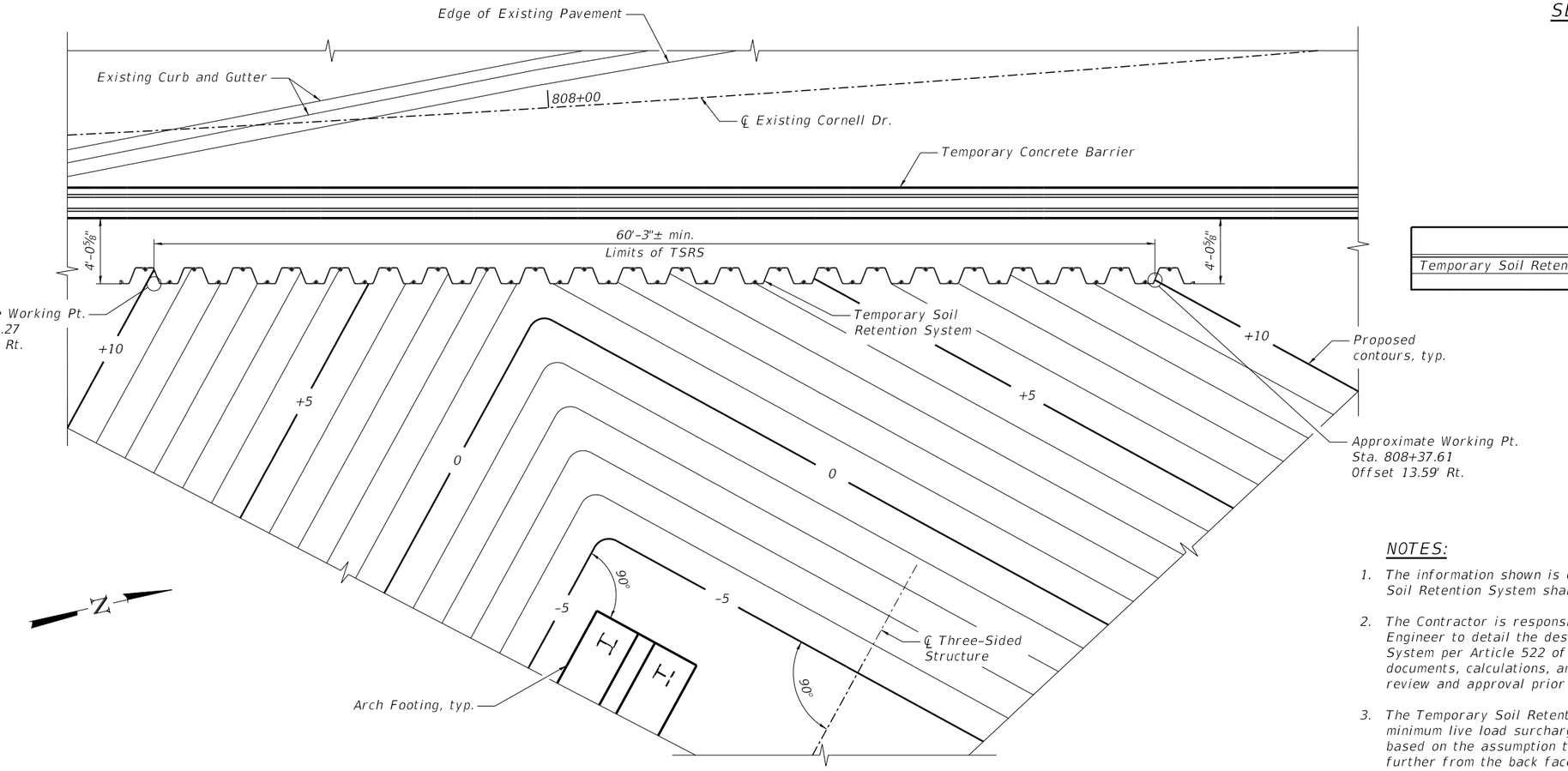
*Slope is parallel to ℄ Three-Sided Structure, not to Temporary Soil Retention System

**Slope is perpendicular to ℄ Three-Sided Structure, not to Temporary Soil Retention System

ELEVATION - TEMPORARY SOIL RETENTION SYSTEM



SECTION A-A



PLAN - TEMPORARY SOIL RETENTION SYSTEM

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Soil Retention System	Sq. Ft.	284

NOTES:

1. The information shown is estimated. The final geometry of the Temporary Soil Retention System shall be determined by the Contractor.
2. The Contractor is responsible for retaining an Illinois Licensed Structural Engineer to detail the design of the proposed Temporary Soil Retention System per Article 522 of the Standard Specifications. All supporting documents, calculations, and details must be submitted to the Engineer for review and approval prior to starting construction.
3. The Temporary Soil Retention System shall be designed to support a minimum live load surcharge of 250 psf. This surcharge pressure is based on the assumption that the edge of the nearest lane is 1'-0" or further from the back face of the Temporary Soil Retention System.
4. Stations and offsets for approximate working points are measured from ℄ Existing Cornell Dr. to front face of Temporary Soil Retention System.

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	PLOT SCALE =	DRAWN - RMG	REVISED -
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DEPARTMENT OF TRANSPORTATION
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TEMPORARY SOIL RETENTION SYSTEM DETAILS
STRUCTURE NO. 016-6250
SHEET NO. SI-3 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1120
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

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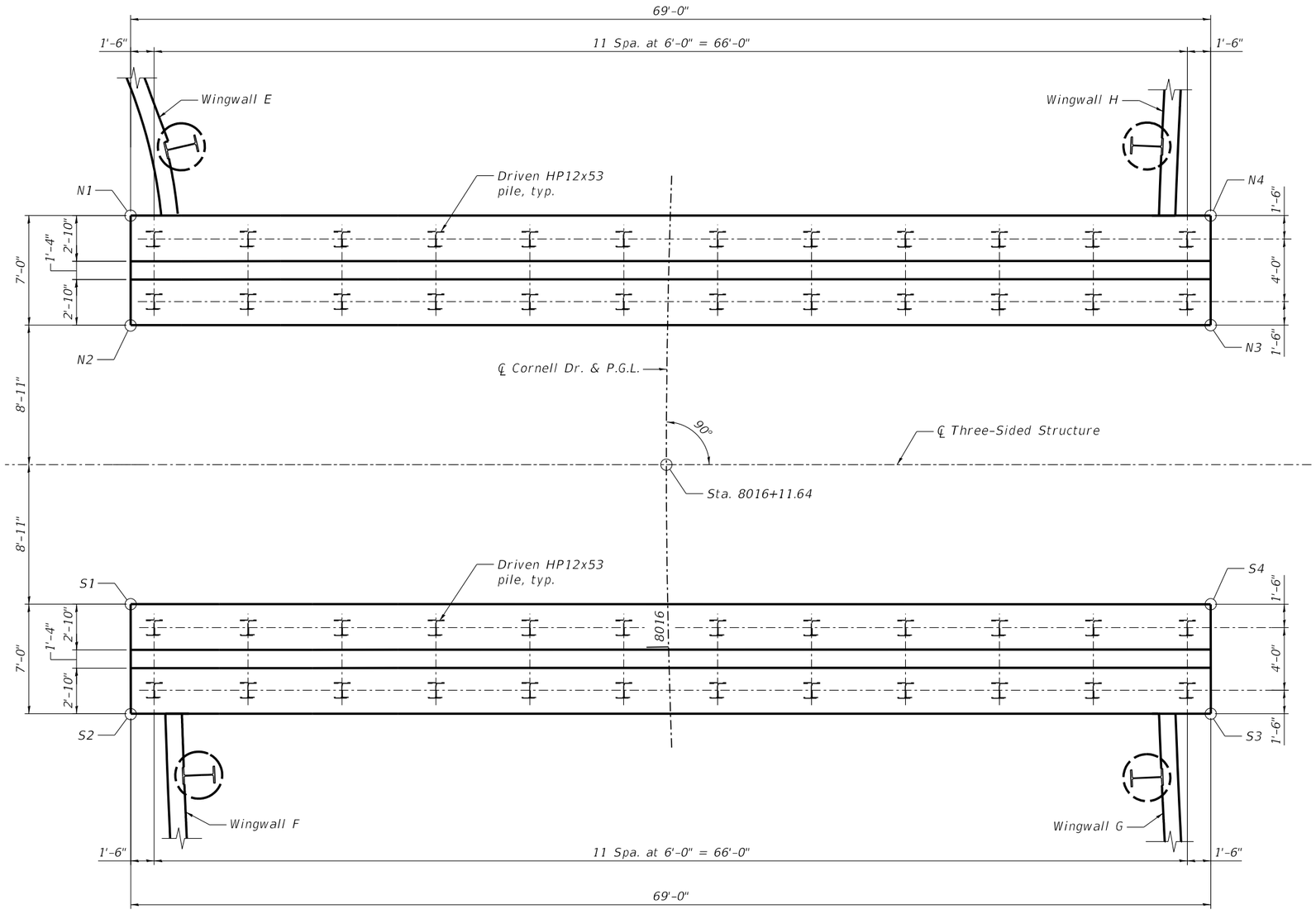

PLAN - FOUNDATION AND PILE LAYOUT

FOUNDATION LAYOUT TABLE

Location	Station	Offset
N1	8016+26.53	34.73' Lt.
N2	8016+19.99	34.57' Lt.
N3	8016+21.21	34.42' Rt.
N4	8016+28.73	34.23' Rt.
S1	8016+03.32	34.58' Lt.
S2	8015+96.78	34.74' Lt.
S3	8015+94.53	34.22' Rt.
S4	8016+02.05	34.41' Rt.

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FOUNDATION LAYOUT
STRUCTURE NO. 016-6250
SHEET NO. SI-4 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1121
CDOT PROJECT NO. B-7-203		SN 016-6250		
	ILLINOIS FED. AID PROJECT			

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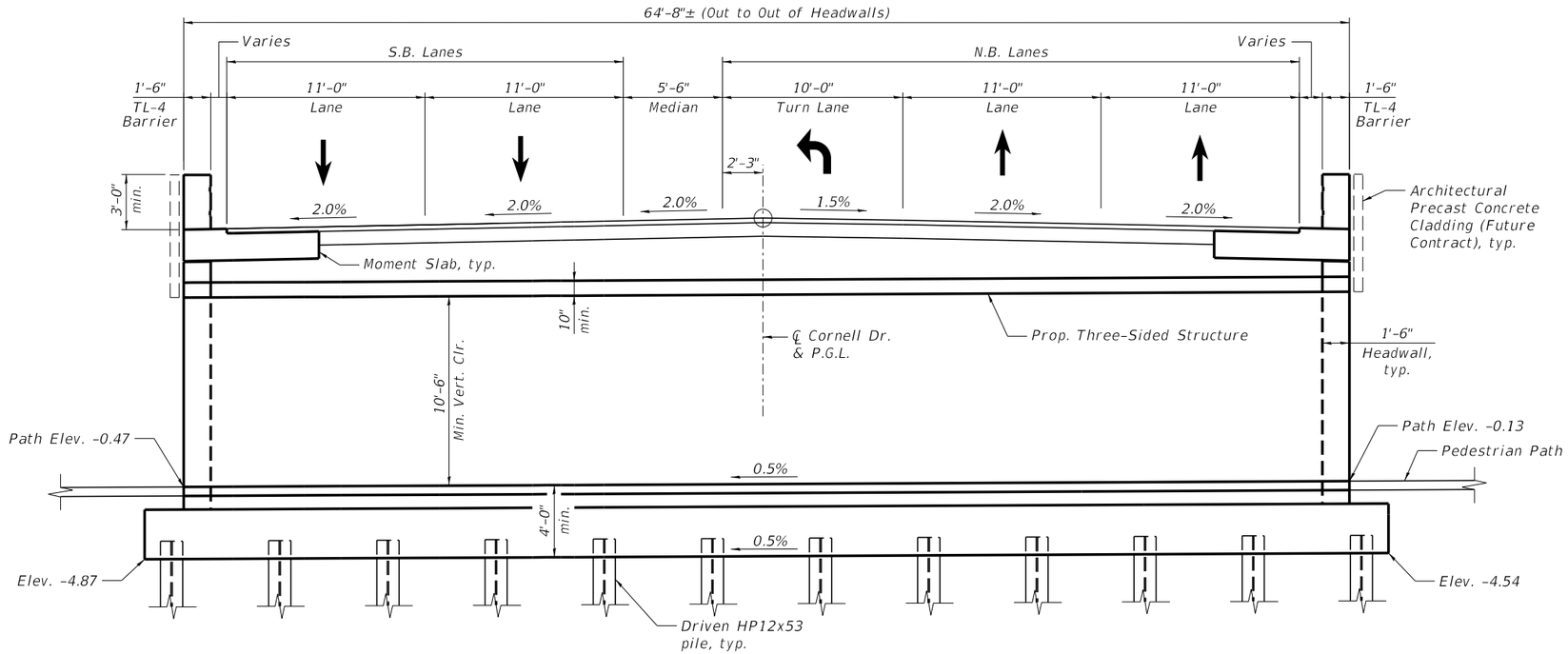

LONGITUDINAL SECTION ALONG CENTERLINE OF THREE-SIDED STRUCTURE

(Looking North)

NOTE:

See Maintenance of Traffic and Civil plans for additional details.

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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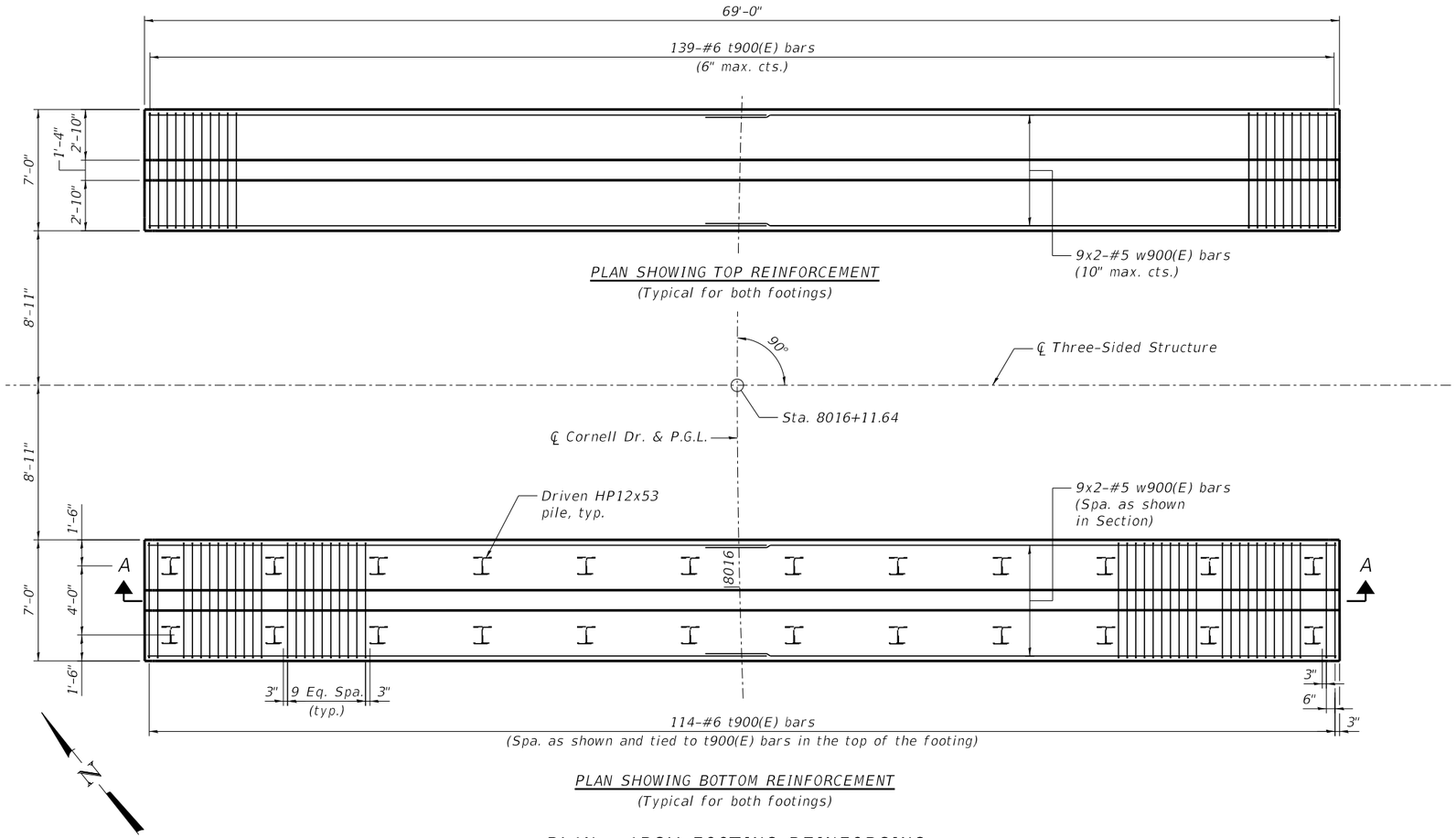
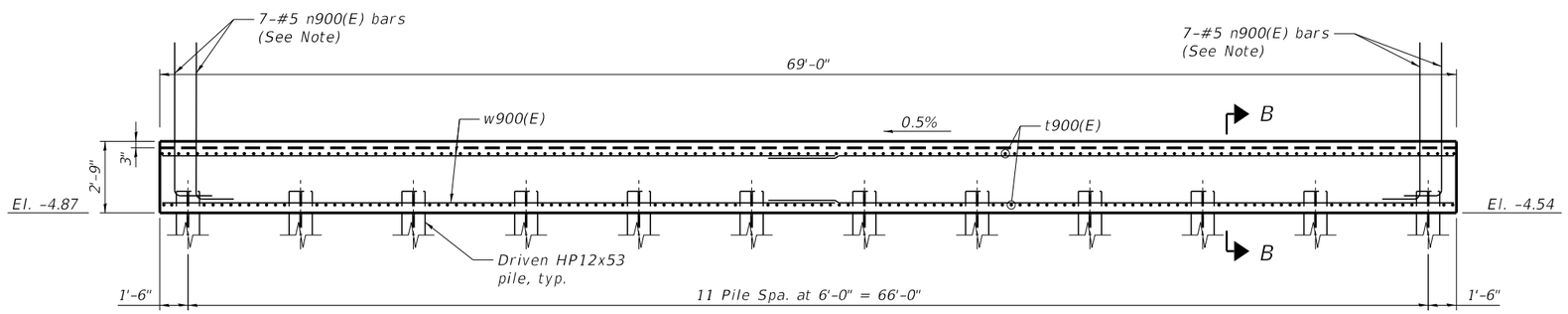
LONGITUDINAL SECTION
STRUCTURE NO. 016-6250
SHEET NO. SI-5 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1122
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				



PLAN - ARCH FOOTING REINFORCING



SECTION A-A

(Typical for both footings)

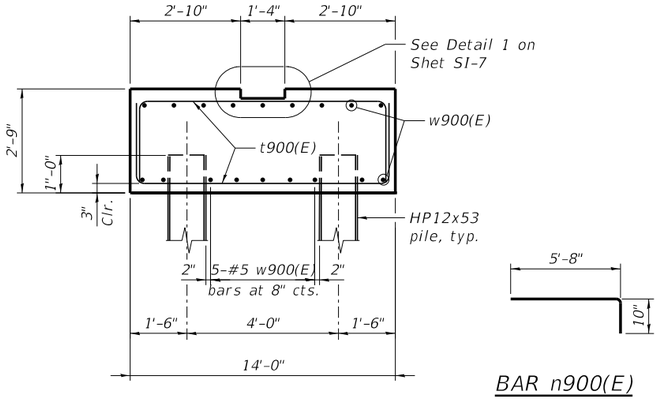
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n900(E)	56	#5	6'-6"	
t900(E)	506	#6	11'-5"	
w900(E)	72	#5	36'-4"	
High Performance Concrete Structures			Cu. Yd.	98.4
Reinforcement Bars, Epoxy Coated			Pound	11,790
Furnishing Steel Piles HP12x53			Foot	2,576
Driving Piles			Foot	2,576
Test Pile Steel HP12x53			Each	2
Pile Shoes			Each	48

Bars indicated thus 2x3-#5 etc. indicate 2 lines of bars with 3 lengths per line.

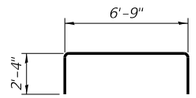
PILE DATA

Type: HP12x53 w/ Pile Shoes
Nominal Required Bearing: 418 kips
Factored Resistance Available: 210 kips
Est. Length: 56 ft.
No. Production Piles: 46
No. Test Piles: 2



SECTION B-B

BAR n900(E)



BAR t900(E)

MINIMUM BAR LAP

#5 = 3'-10"

NOTE:

Arch Footing to Headwall dowels not shown for clarity. Work this sheet with Sheets SI-1 and SI-8 for placement of n900(E) bars. Avoid piles as necessary.

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ARCH FOOTING DETAILS
STRUCTURE NO. 016-6250
SHEET NO. SI-6 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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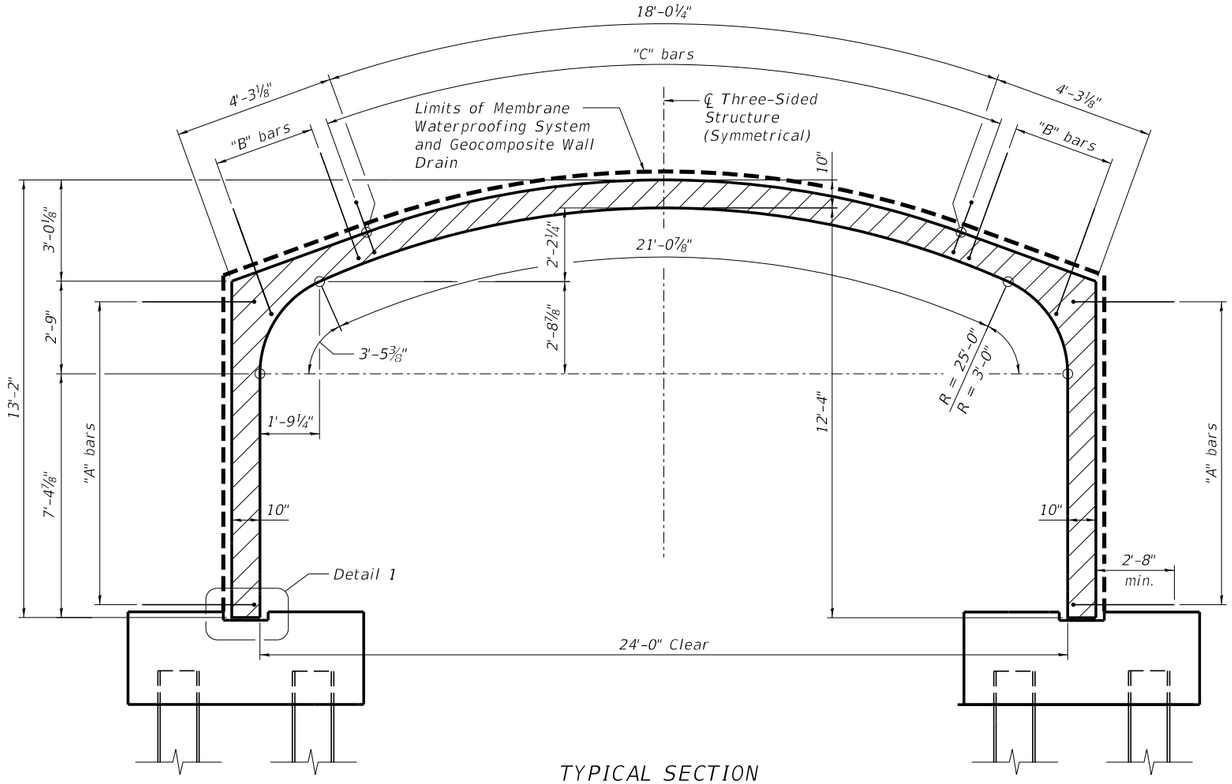
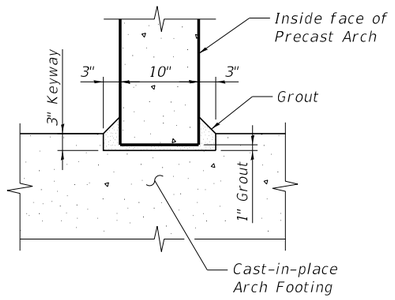
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

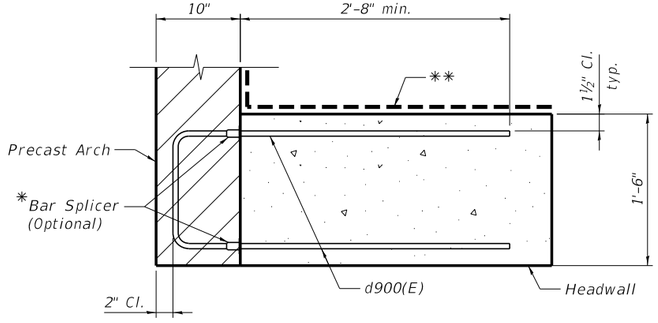


TYPICAL SECTION

(Dowel bars "A", "B", and "C" only required at headwall)



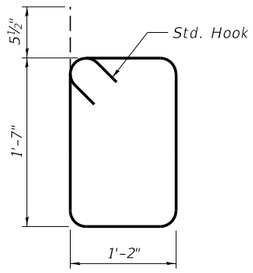
DETAIL 1



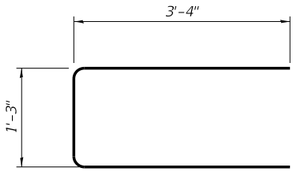
MECHANICAL SPLICE IN PRECAST ARCH DETAIL (OPTIONAL)

* Contractor may provide mechanical splicers as shown at no additional cost.

** Limits of Membrane Waterproofing System and Geocomposite Wall Drain.



BAR d901(E)



BAR d900(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d900(E)	116	#5	7'-11"	⊂
d901(E)	76	#5	6'-5"	▭
* Reinforcement Bars, Epoxy Coated			Pound	1,470
Membrane Waterproofing System for Buried Structures			Sq. Yd.	319
Geocomposite Wall Drain			Sq. Yd.	319
Three-Sided Precast Concrete Structures 24'x13'			Foot	65

* For Information Only. Cost included with Three-Sided Precast Concrete Structures.

"A" bars = 21-#5 d900(E) bars at 6" max. cts.
"B" bars = 8-#5 d900(E) bars at 6" max. cts.
"C" bars = 38-#5 d901(E) bars at 6" max. cts.

NOTES:

1. The Contractor shall submit a complete design of the Precast Arch Structure and all construction documents to the Engineer for review and approval prior to starting construction. All documents shall be prepared and sealed by an Illinois Licensed Structural Engineer.
2. The three-sided concrete structure shall be designed, manufactured, installed and load rated per the requirements of the Special Provision for "Three-Sided Precast Concrete Structure", and shall include the effects of unyielding foundation conditions for the sequence of construction anticipated.
3. Joint waterproofing, Membrane Waterproofing System and Geocomposite Wall Drain shall be applied to the outer surfaces of the arch and headwall below the proposed roadway prior to backfilling per the applicable portions of Sections 503, 504, 540.06 and 591 of the Standard Specifications and per the Special Provisions for "Membrane Waterproofing System for Buried Structures" and "Three-Sided Precast Concrete Structure". Waterproofing must also meet the minimum requirements of the three-sided structure manufacturer. Joint spacing between precast arches shall be per the manufacturer's recommendations and shall be ¼" minimum.
4. Work this drawing with Sheet SI-8, Headwall Details, for placing of reinforcing bars shown.
5. Architectural Precast Concrete Cladding along with painting of the underside of arch and other architectural elements on the underside of arch to be installed in a future contract.
6. See Electrical Lighting Plans for Precast Arch Lighting Details.

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ARCH DETAILS
STRUCTURE NO. 016-6250
SHEET NO. SI-7 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1124
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS FED. AID PROJECT				

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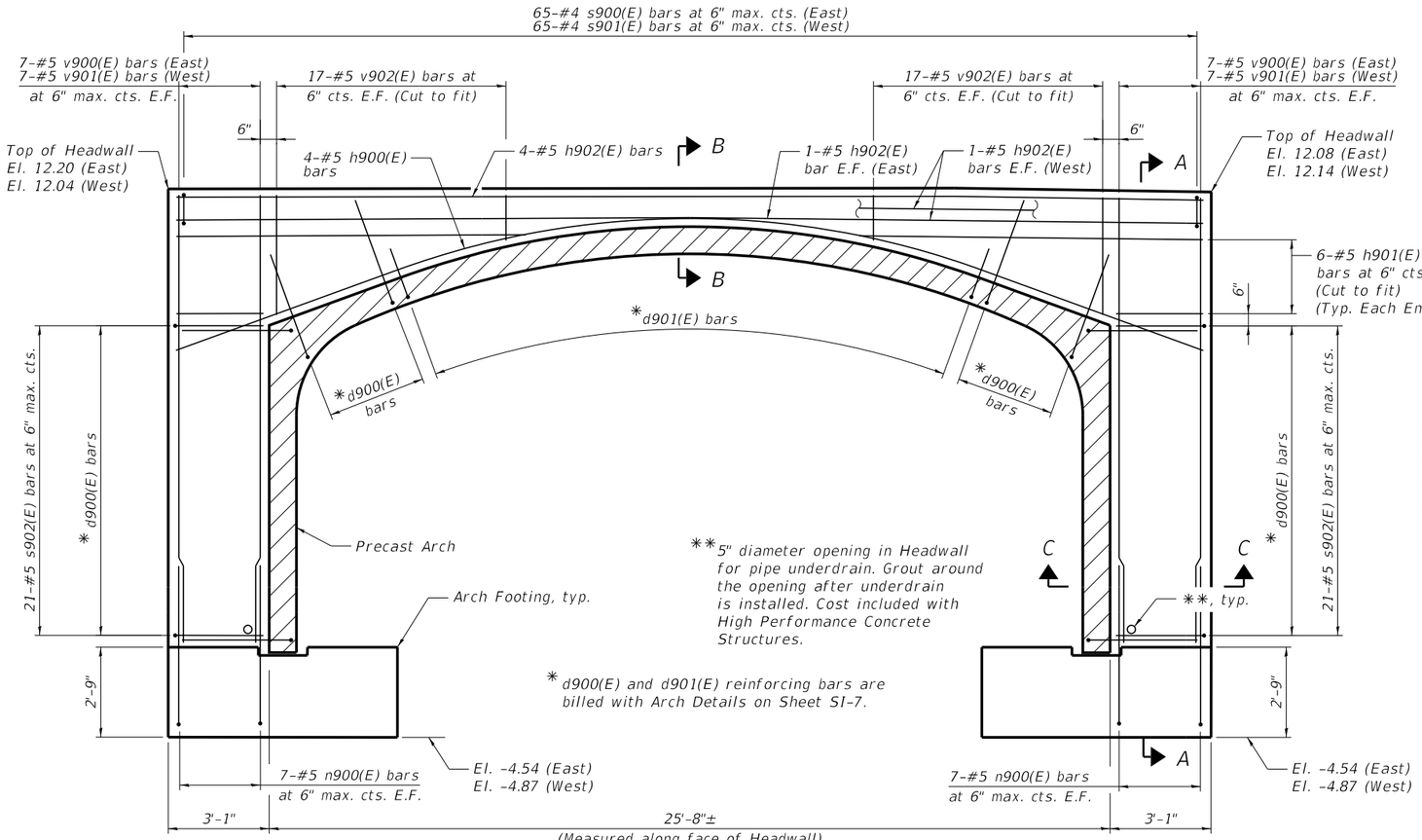
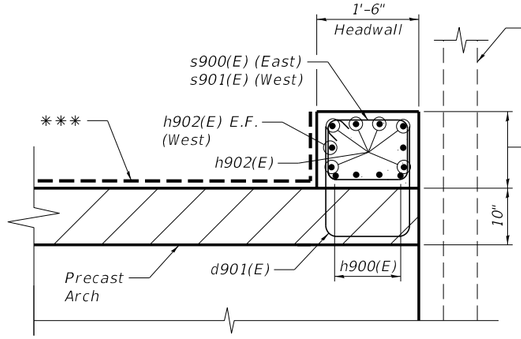


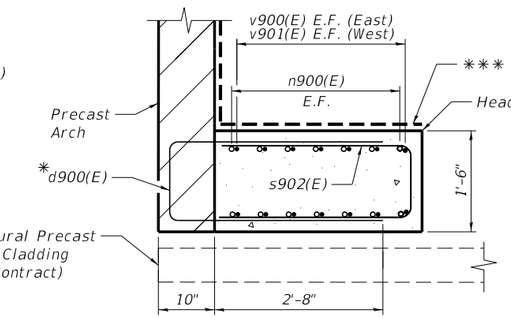
ELEVATION - HEADWALL

(Moment Slab and Arch Footing Piles not shown for clarity)

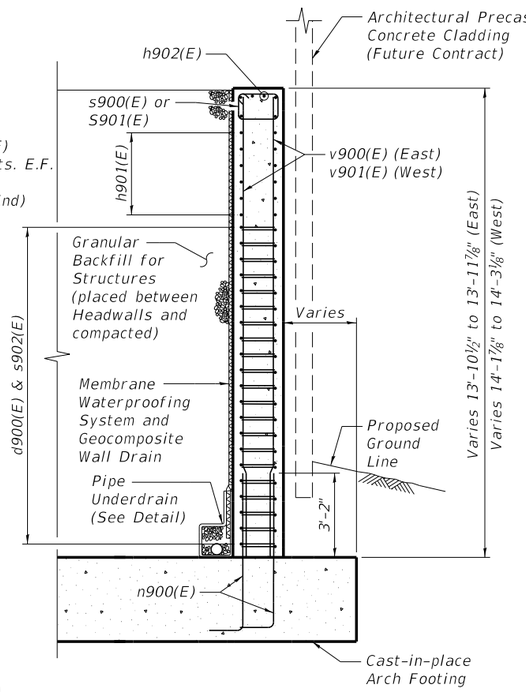


SECTION B-B

(Moment Slab not shown for clarity)

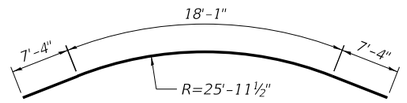


SECTION C-C

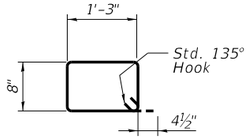


SECTION A-A

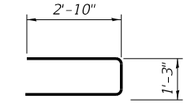
(Moment Slab and Arch Footing Piles not shown for clarity)



BAR h900(E)



BAR s900(E)



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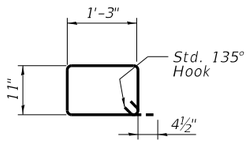
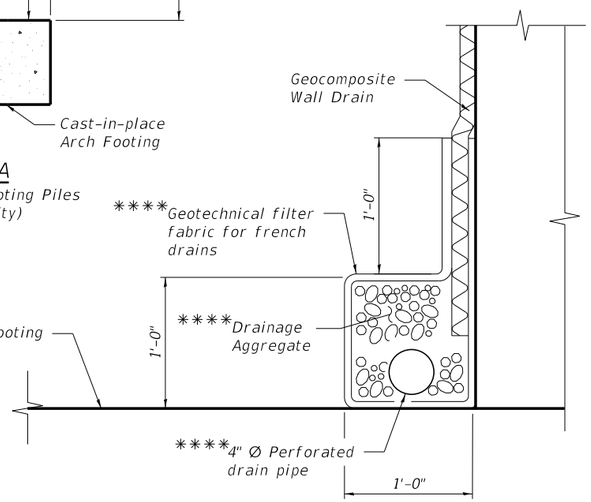


BAR s901(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h900(E)	8	#5	32'-9"	
h901(E)	48	#5	12'-2"	
h902(E)	14	#5	31'-7"	
s900(E)	65	#4	4'-7"	
s901(E)	65	#4	5'-1"	
s902(E)	84	#5	6'-11"	
v900(E)	28	#5	13'-8"	
v901(E)	28	#5	13'-11"	
v902(E)	136	#5	3'-10"	
High Perfomance Concrete Structures			Cu. Yd.	15.9
Reinforcement Bars, Epoxy Coated			Pound	3,720
Membrane Waterproofing System for Buried Structures			Sq. Yd.	32
Geocomposite Wall Drain			Sq. Yd.	32
Granular Backfill for Structures			Cu. Yd.	324
Pipe Underdrains for Structures, 4"			Foot	133



PIPE UNDERDRAIN DETAIL

****Included in the cost of Pipe Underdrains for Structures, 4"

***Limits of Membrane Waterproofing System and Geocomposite Wall Drain

NOTES:

1. Work this sheet with Sheet SI-7 for billing of bars d900(E) and d901(E) and with Sheet SI-6 for billing of bars n900(E).
2. E.F. denotes Each Face.

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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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HEADWALL DETAILS
STRUCTURE NO. 016-6250
SHEET NO. SI-8 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1125
CDOT PROJECT NO.	B-7-203	SN 016-6250		
	ILLINOIS FED. AID PROJECT			

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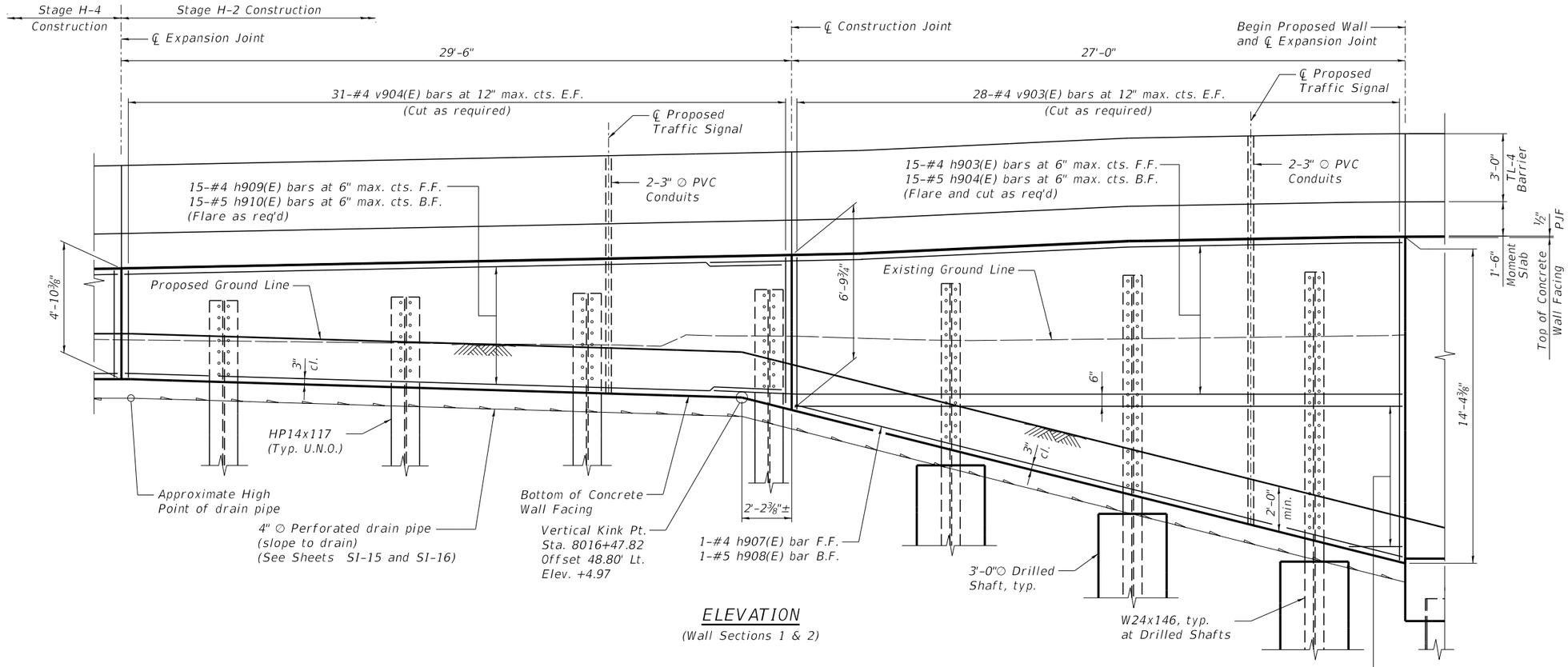
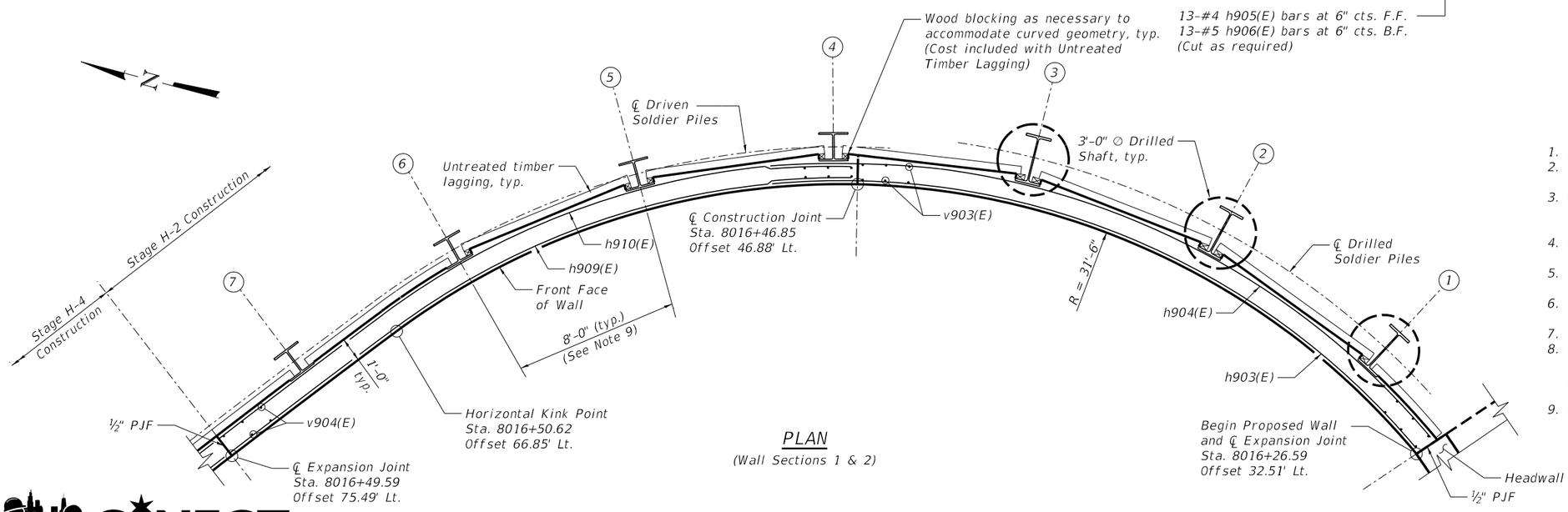


ELEVATION
(Wall Sections 1 & 2)



PLAN
(Wall Sections 1 & 2)

BILL OF MATERIAL - WALL E

Bar	No.	Size	Length	Shape
h903(E)	15	#4	29'-10"	
h904(E)	15	#5	31'-8"	
h905(E)	13	#4	26'-11"	
h906(E)	13	#5	27'-7"	
h907(E)	1	#4	27'-8"	
h908(E)	1	#5	28'-5"	
h909(E)	15	#4	29'-4"	
h910(E)	15	#5	29'-10"	
h911(E)	10	#4	38'-5"	
h912(E)	10	#5	39'-7"	
h913(E)	9	#4	38'-9"	
h914(E)	9	#5	39'-11"	
h915(E)	8	#4	35'-6"	
h916(E)	8	#5	35'-6"	
v903(E)	56	#4	13'-11"	
v904(E)	62	#4	6'-5"	
v905(E)	74	#4	4'-6"	
v906(E)	74	#4	3'-8"	
v907(E)	74	#4	3'-2"	
High Performance Concrete Structures		Cu. Yd.	33.9	
Stud Shear Connectors		Each	288	
Reinforcement Bars, Epoxy Coated		Pound	5,330	
Pile Shoes		Each	18	
Furnishing Soldier Piles (HP Section)		Foot	372	
Furnishing Soldier Piles (W Section)		Foot	109	
Driving Soldier Piles		Foot	372	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	550	
Untreated Timber Lagging		Sq. Ft.	628	
Geocomposite Wall Drain		Sq. Yd.	79	
Granular Backfill for Structures		Cu. Yd.	92	
Pipe Underdrains for Structures, 4"		Foot	205	

Bars indicated thus 2x3-#5 etc., indicate 2 lines of bars with 3 lengths per line.

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SI-15 and SI-16 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Cornell Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SI-17 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheets SI-15 and SI-27 for conduit details, traffic signal details, and additional notes.
7. See Sheet SI-16 for Shear Stud Detail.
8. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise
9. Pile spacing measured along Front Face of Wall. See Sheet SI-17 for specific stations and offsets.

MINIMUM BAR LAP
#4 = 2'-8"
#5 = 3'-10"

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WINGWALL E PLAN AND ELEVATION DETAILS (1 OF 3)
STRUCTURE NO. 016-6250
SHEET NO. SI-9 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1126
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS FED. AID PROJECT				

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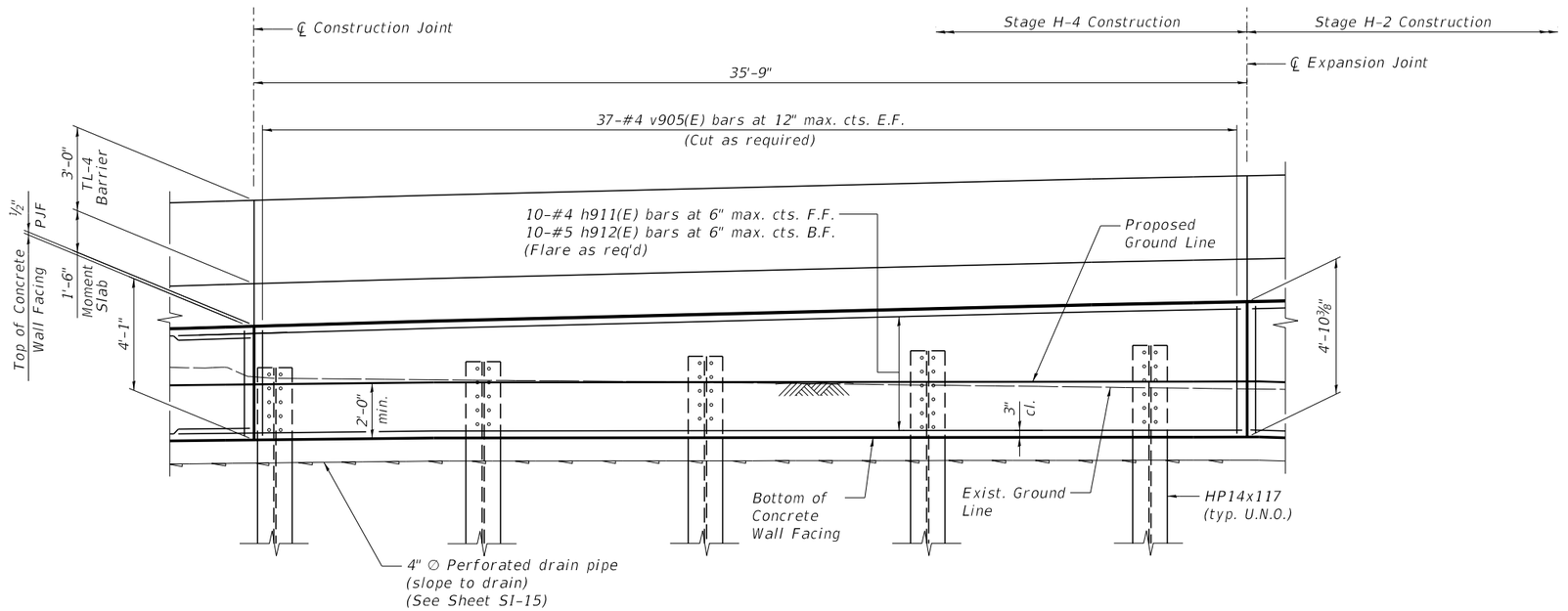
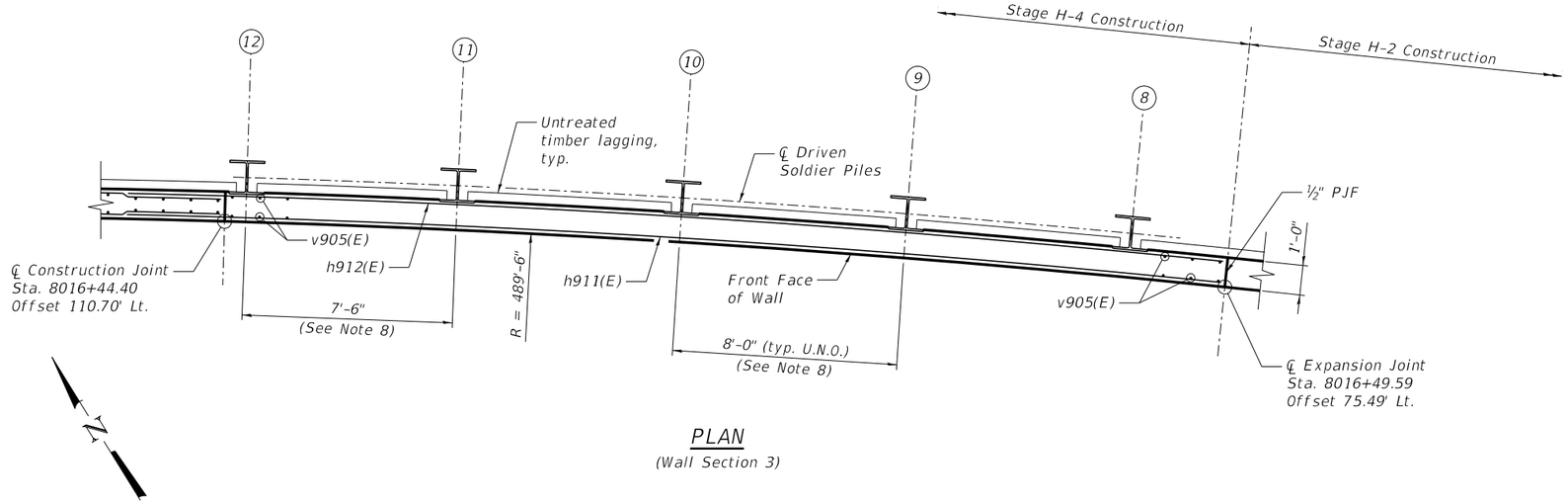


ELEVATION
(Wall Section 3)



PLAN
(Wall Section 3)

MINIMUM BAR LAP
#4 = 2'-8"
#5 = 3'-10"

NOTES:
1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SI-15 and SI-16 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Cornell Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SI-17 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheet SI-16 for Shear Stud Detail.
7. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise
8. Pile spacing measured along Front Face of Wall. See Sheet SI-17 for specific stations and offsets.

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FILE NAME = ABC-sht-6250-plan-002.dgn	USER NAME = jsurber	DESIGNED - PAB/JPM	REVISED -
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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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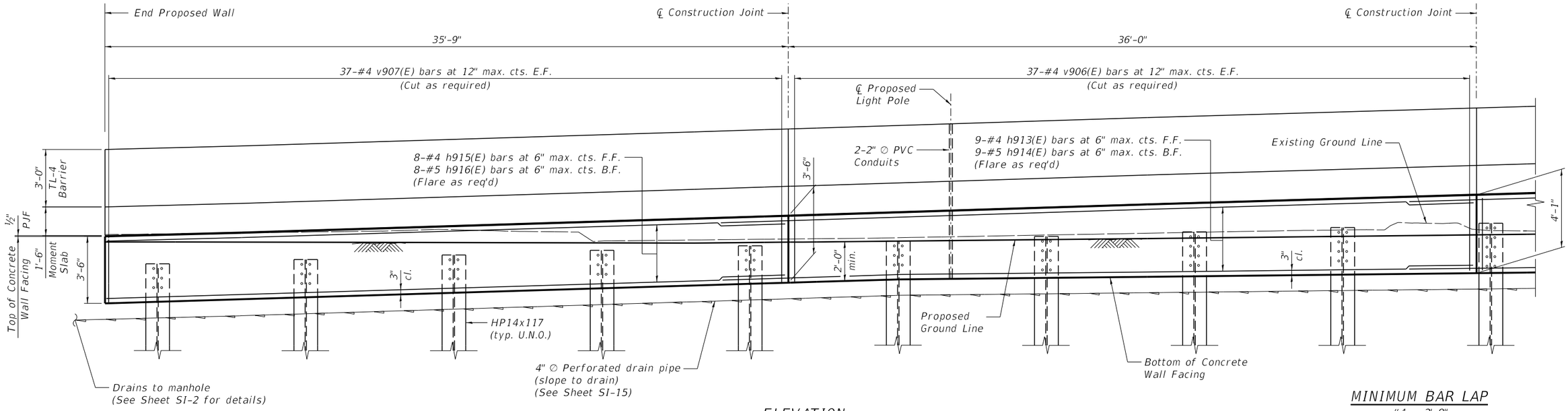
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WINGWALL E PLAN AND ELEVATION DETAILS (2 OF 3)
STRUCTURE NO. 016-6250
SHEET NO. SI-10 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1127
	CDOT PROJECT NO. B-7-203	SN 016-6250		
	ILLINOIS FED. AID PROJECT			

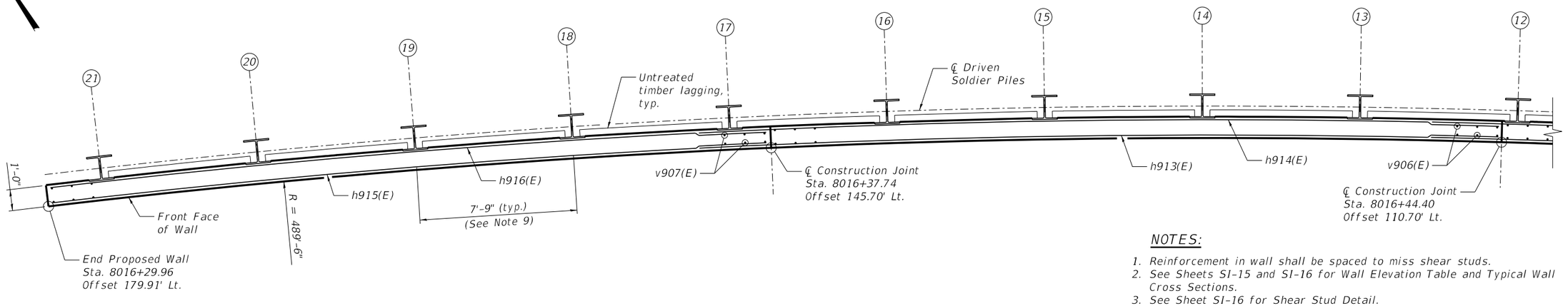


ELEVATION

(Wall Sections 4 & 5)

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"



PLAN

(Wall Sections 4 & 5)

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SI-15 and SI-16 for Wall Elevation Table and Typical Wall Cross Sections.
3. See Sheet SI-16 for Shear Stud Detail.
4. Wall stations and offsets are measured from Proposed ℄ Cornell Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
5. Horizontal dimensions and lengths are measured along Front Face of Wall.
6. See Sheet SI-17 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
7. See Sheets SI-15 and SI-27 for conduit details, light pole details, and additional notes.
8. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise.
9. Pile spacing measured along Front Face of Wall. See Sheet SI-17 for specific stations and offsets.

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		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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DEPARTMENT OF TRANSPORTATION
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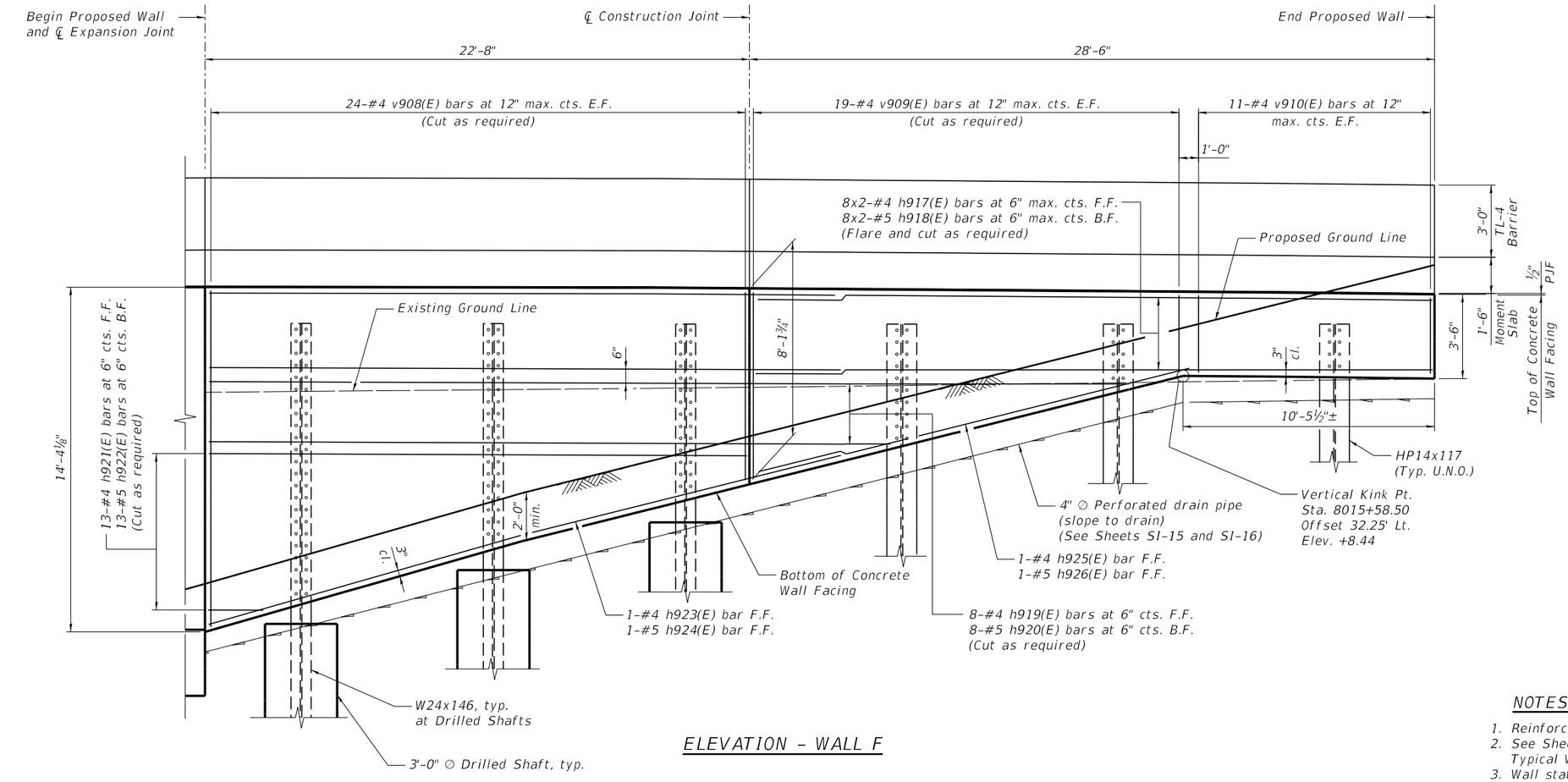
WINGWALL E PLAN AND ELEVATION DETAILS (3 OF 3)
STRUCTURE NO. 016-6250
SHEET NO. SI-11 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1128
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS FED. AID PROJECT				



ELEVATION - WALL F

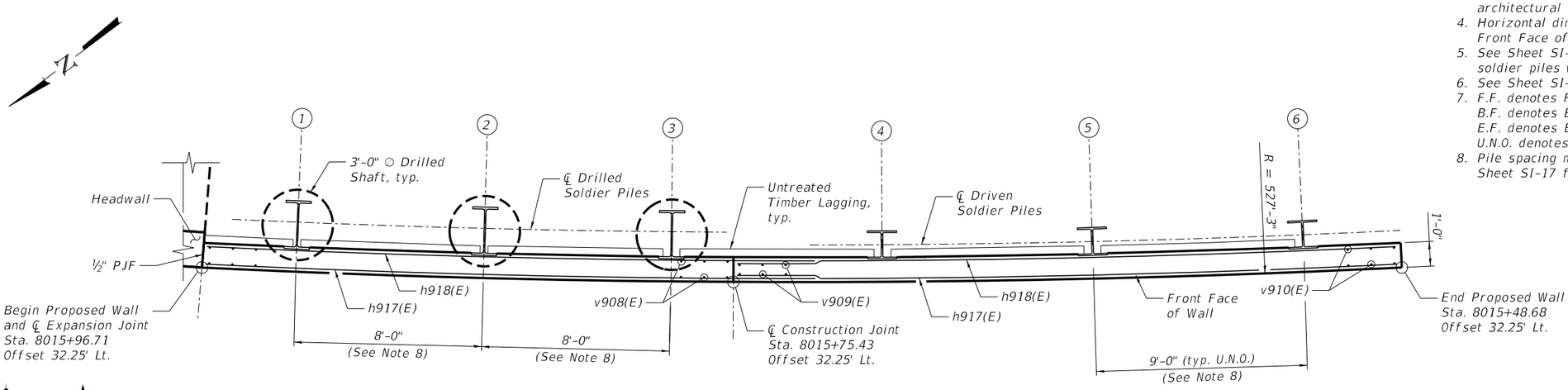
BILL OF MATERIAL - WALL F

Bar	No.	Size	Length	Shape
h917(E)	16	#4	26'-10"	———
h918(E)	16	#5	27'-5"	———
h919(E)	8	#4	38'-5"	———
h920(E)	8	#5	38'-5"	———
h921(E)	13	#4	22'-5"	———
h922(E)	13	#5	22'-5"	———
h923(E)	1	#4	26'-2"	———
h924(E)	1	#5	27'-4"	———
h925(E)	1	#4	18'-5"	———
h926(E)	1	#5	18'-5"	———
v908(E)	48	#4	13'-11"	———
v909(E)	38	#4	7'-9"	———
v910(E)	22	#4	3'-2"	———
High Performance Concrete Structures		Cu. Yd.		14.7
Stud Shear Connectors		Each		148
Reinforcement Bars, Epoxy Coated		Pound		2,540
Pile Shoes		Each		3
Furnishing Soldier Piles (HP Section)		Foot		61
Furnishing Soldier Piles (W Section)		Foot		104
Driving Soldier Piles		Foot		61
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.		517
Untreated Timber Lagging		Sq. Ft.		318
Geocomposite Wall Drain		Sq. Yd.		39
Granular Backfill for Structures		Cu. Yd.		50
Pipe Underdrains for Structures, 4"		Foot		61

Bars indicated thus 2x3-#5 etc., indicate 2 lines of bars with 3 lengths per line.

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SI-15 and SI-16 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Cornell Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SI-17 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheet SI-16 for Shear Stud Detail.
7. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise
8. Pile spacing measured along Front Face of Wall. See Sheet SI-17 for specific stations and offsets.



PLAN - WALL F

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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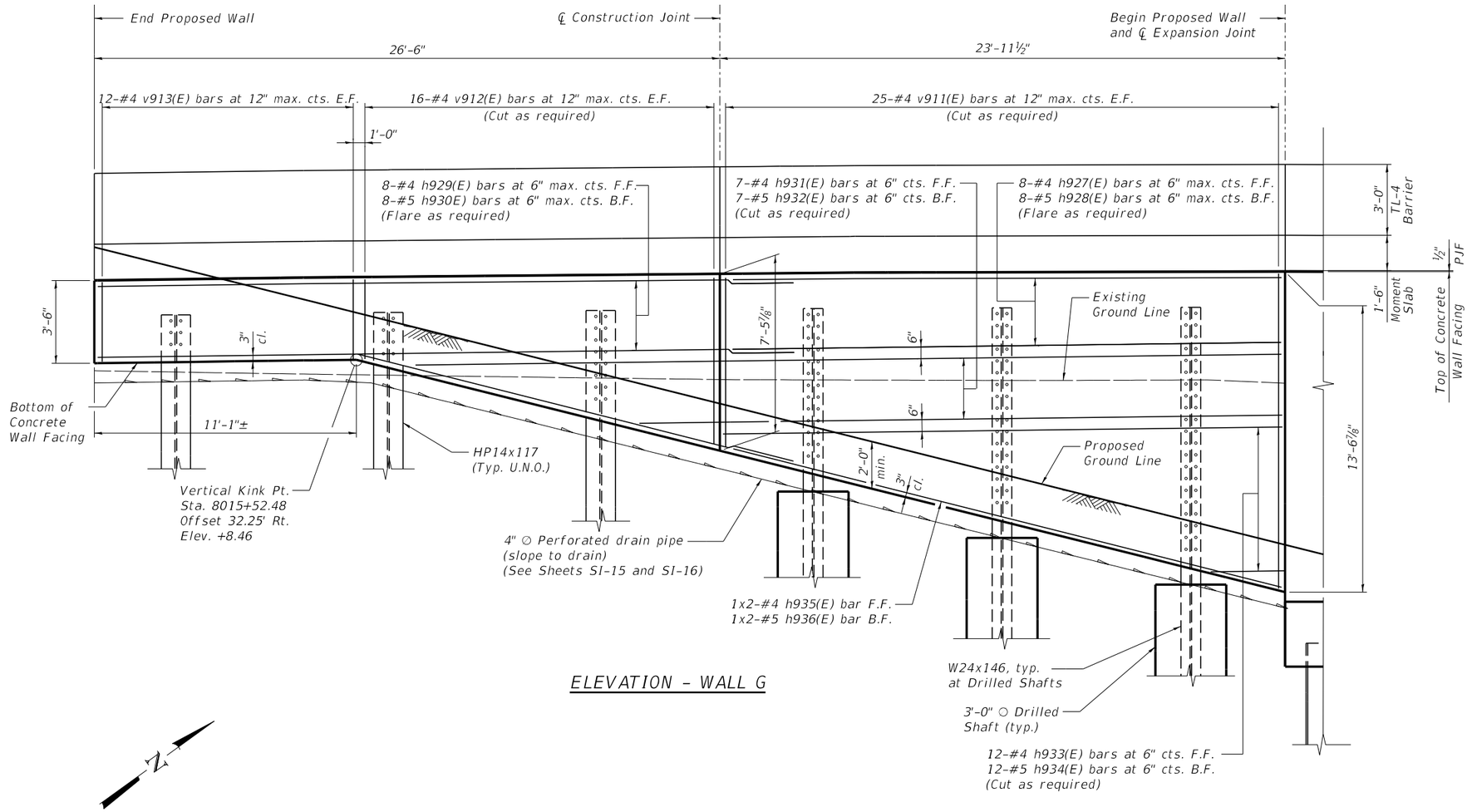
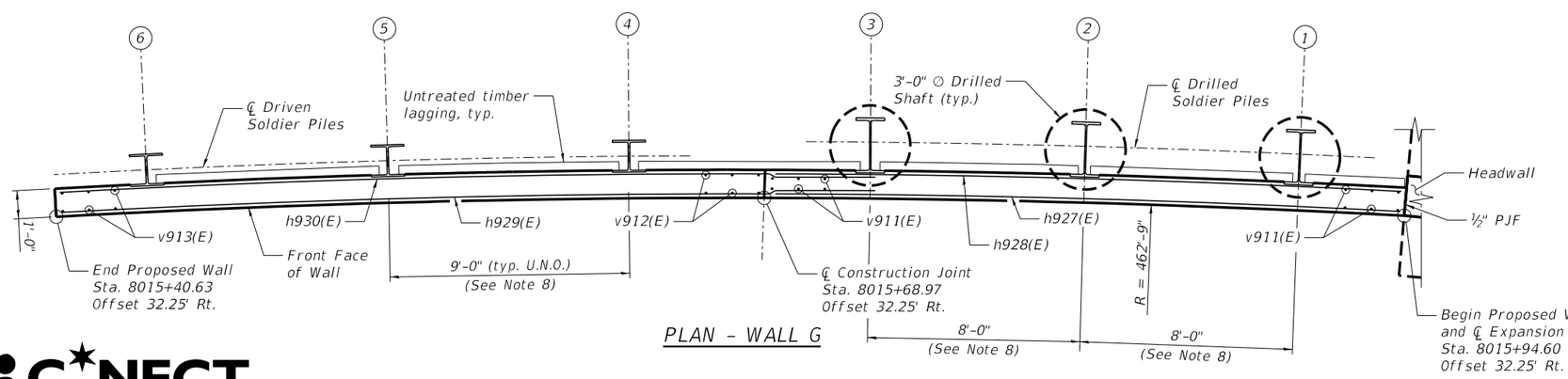
DIVISION OF ENGINEERING

WINGWALL F PLAN AND ELEVATION DETAILS
STRUCTURE NO. 016-6250
SHEET NO. SI-12 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1129
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				



ELEVATION - WALL G



PLAN - WALL G

BILL OF MATERIAL - WALL G

Bar	No.	Size	Length	Shape
h927(E)	8	#4	23'-8"	———
h928(E)	8	#5	23'-8"	———
h929(E)	8	#4	29'-2"	———
h930(E)	8	#5	30'-4"	———
h931(E)	7	#4	37'-1"	———
h932(E)	7	#5	37'-1"	———
h933(E)	12	#4	23'-6"	———
h934(E)	12	#5	23'-6"	———
h935(E)	2	#4	21'-7"	———
h936(E)	2	#5	22'-2"	———
v911(E)	50	#4	13'-2"	———
v912(E)	32	#4	7'-1"	———
v913(E)	24	#4	3'-2"	———
High Performance Concrete Structures		Cu. Yd.	14.0	
Stud Shear Connectors		Each	132	
Reinforcement Bars, Epoxy Coated		Pound	2,380	
Pile Shoes		Each	3	
Furnishing Soldier Piles (HP Section)		Foot	80	
Furnishing Soldier Piles (W Section)		Foot	98	
Driving Soldier Piles		Foot	80	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	483	
Untreated Timber Lagging		Sq. Ft.	301	
Geocomposite Wall Drain		Sq. Yd.	37	
Granular Backfill for Structures		Cu. Yd.	54	
Pipe Underdrains for Structures, 4"		Foot	60	

Bars indicated thus 2x3-#5 etc., indicate 2 lines of bars with 3 lengths per line.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SI-15 and SI-16 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Cornell Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SI-17 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheet SI-16 for Shear Stud Detail.
7. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise
8. Pile spacing measured along Front Face of Wall. See Sheet SI-17 for specific stations and offsets.

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FILE NAME = ABC-sht-6250-plan-005.dgn	USER NAME = jsurber	DESIGNED - PAB/JPM	REVISED -
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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

WINGWALL G PLAN AND ELEVATION DETAILS
STRUCTURE NO. 016-6250
SHEET NO. SI-13 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1130
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS FED. AID PROJECT				

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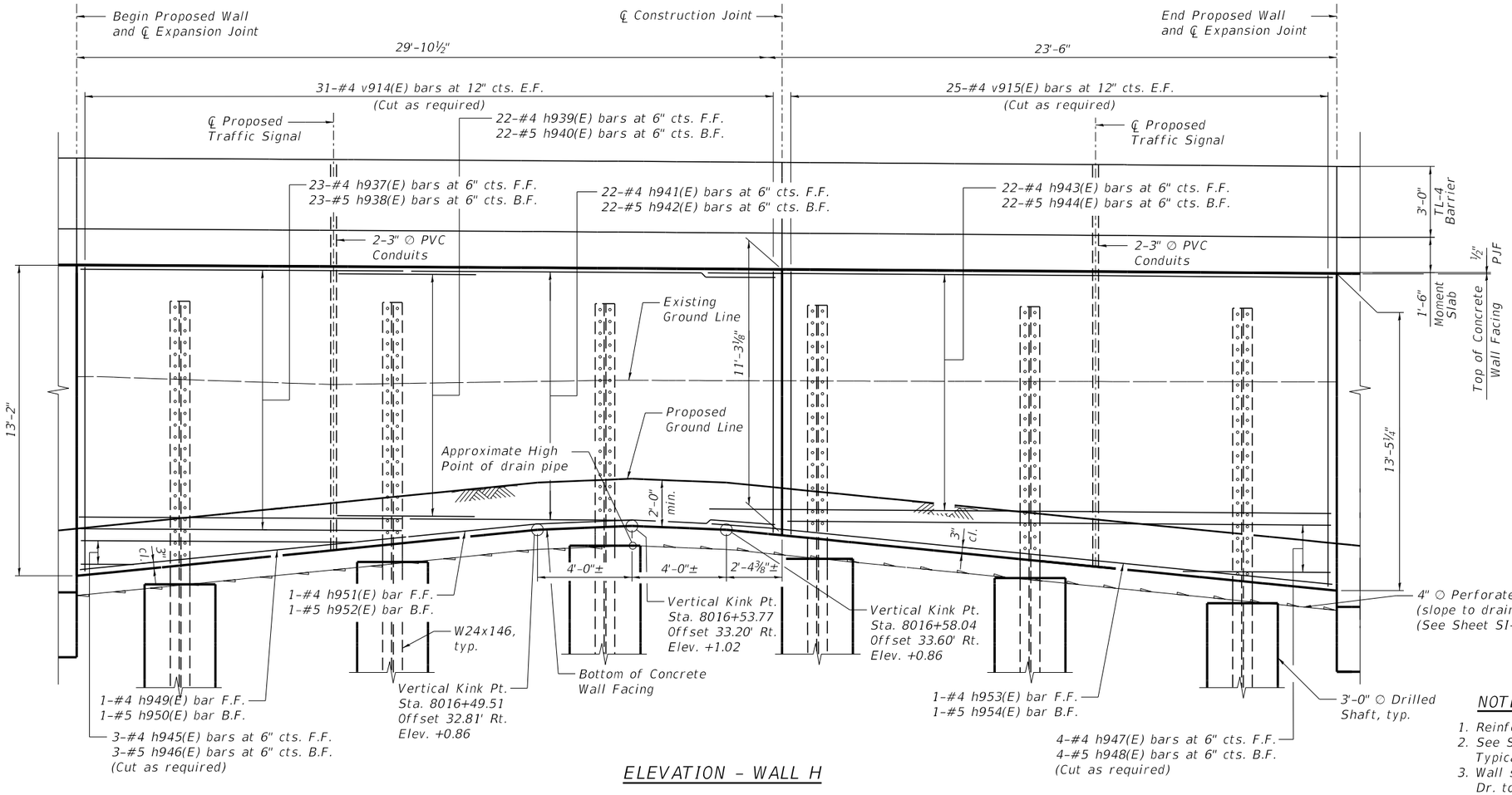


ELEVATION - WALL H

BILL OF MATERIAL - WALL H

Bar	No.	Size	Length	Shape
h937(E)	23	#4	13'-8"	
h938(E)	23	#5	13'-8"	
h939(E)	22	#4	5'-10"	
h940(E)	22	#5	8'-0"	
h941(E)	22	#4	16'-0"	
h942(E)	22	#5	16'-0"	
h943(E)	22	#4	26'-3"	
h944(E)	22	#5	27'-9"	
h945(E)	3	#4	12'-1"	
h946(E)	3	#5	12'-1"	
h947(E)	4	#4	23'-4"	
h948(E)	4	#5	23'-7"	
h949(E)	1	#4	13'-9"	
h950(E)	1	#5	13'-9"	
h951(E)	1	#4	16'-0"	
h952(E)	1	#5	16'-0"	
h953(E)	1	#4	26'-5"	
h954(E)	1	#5	27'-10"	
v914(E)	62	#4	12'-9"	
v915(E)	50	#4	13'-1"	
High Performance Concrete Structures		Cu. Yd.	23.8	
Stud Shear Connectors		Each	246	
Reinforcement Bars, Epoxy Coated		Pound	3,720	
Furnishing Soldier Piles (W Section)		Foot	213	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	1,025	
Untreated Timber Lagging		Sq. Ft.	562	
Geocomposite Wall Drain		Sq. Yd.	66	
Granular Backfill for Structures		Cu. Yd.	62	
Pipe Underdrains for Structures, 4"		Foot	68	

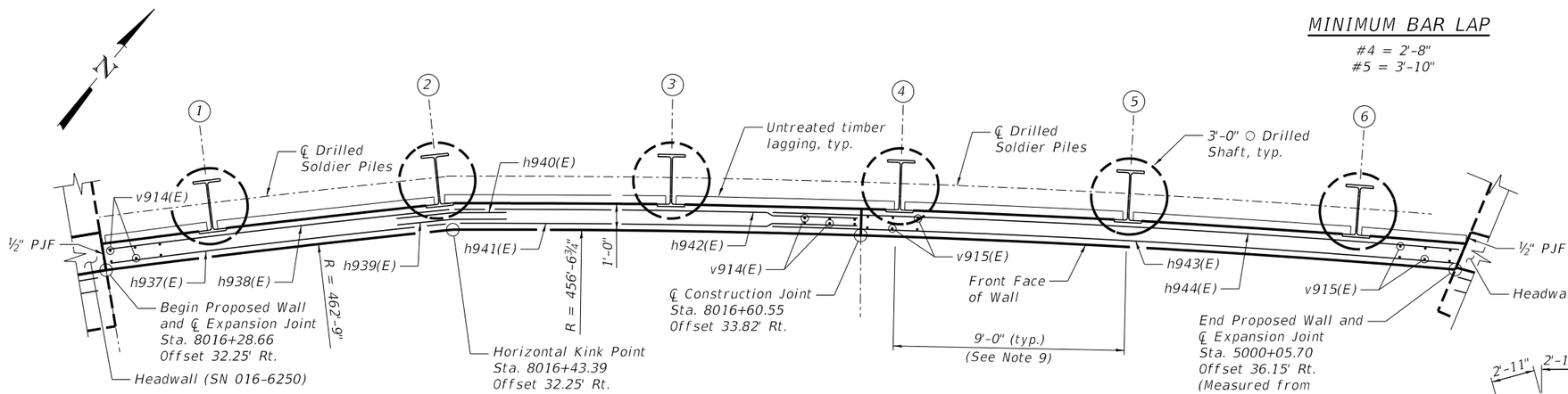
Bars indicated thus 2x3-#5 etc., indicate 2 lines of bars with 3 lengths per line.

NOTES:

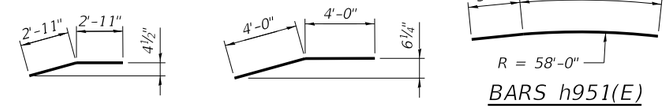
1. Reinforcement in wall shall be spaced to miss shear studs.
2. See Sheets SI-15 and SI-16 for Wall Elevation Table and Typical Wall Cross Sections.
3. Wall stations and offsets are measured from Proposed ℄ Cornell Dr. to front face of Cast-in-place Wall (not including architectural precast concrete cladding).
4. Horizontal dimensions and lengths are measured along Front Face of Wall.
5. See Sheet SI-17 for Soldier Pile Data Table for layout of soldier piles with respect to Front Face of Wall.
6. See Sheets SI-15 and SI-27 for conduit details, traffic signal details, and additional notes.
7. See Sheet SI-16 for Shear Stud Detail.
8. F.F. denotes Front Face.
   B.F. denotes Back Face.
   E.F. denotes Each Face.
   U.N.O. denotes Unless Noted Otherwise
9. Pile spacing measured along Front Face of Wall. See Sheet SI-17 for specific stations and offsets.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"



PLAN - WALL H



BAR h939(E)

BAR h940(E)

BARS h951(E) and h952(E)

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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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DIVISION OF ENGINEERING

WINGWALL H PLAN AND ELEVATION DETAILS
STRUCTURE NO. 016-6250
SHEET NO. SI-14 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

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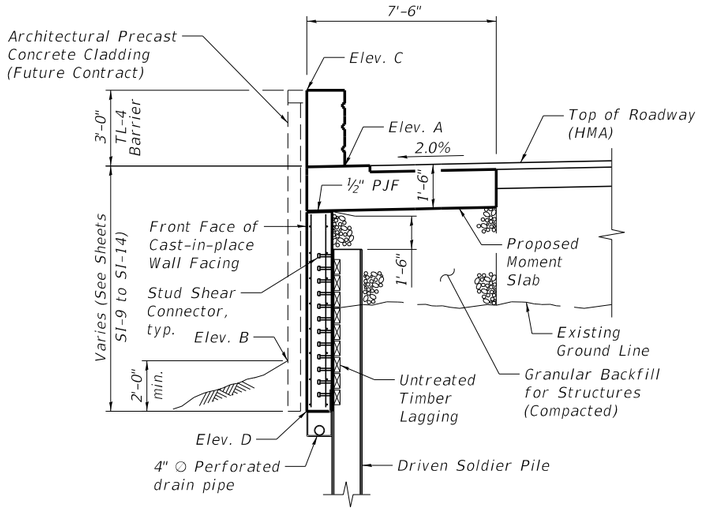
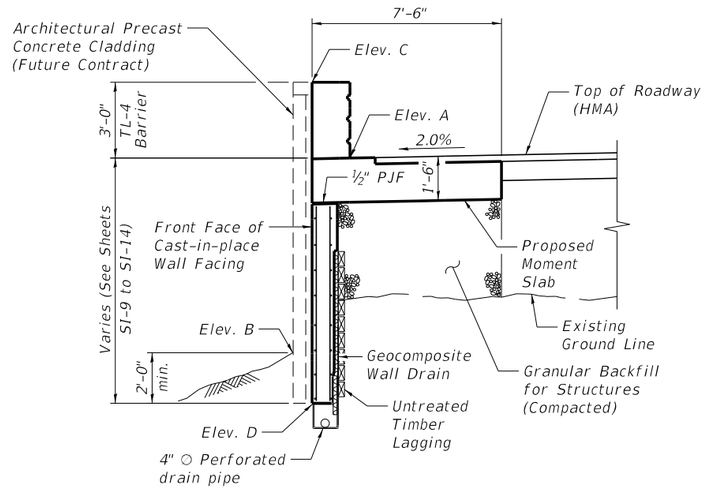


TYPICAL RETAINING WALL SECTION AT DRIVEN SOLDIER PILE

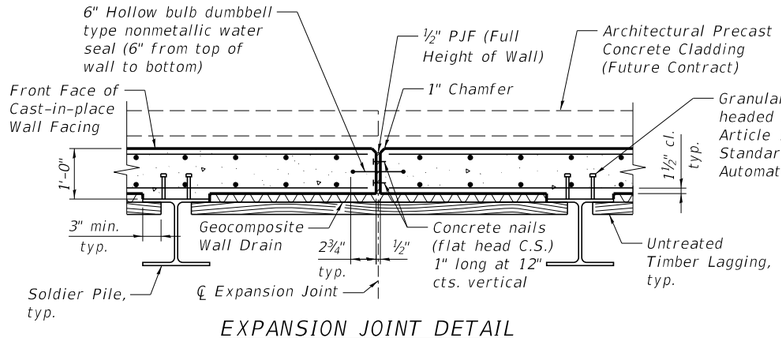


TYPICAL RETAINING WALL SECTION BETWEEN SOLDIER PILES

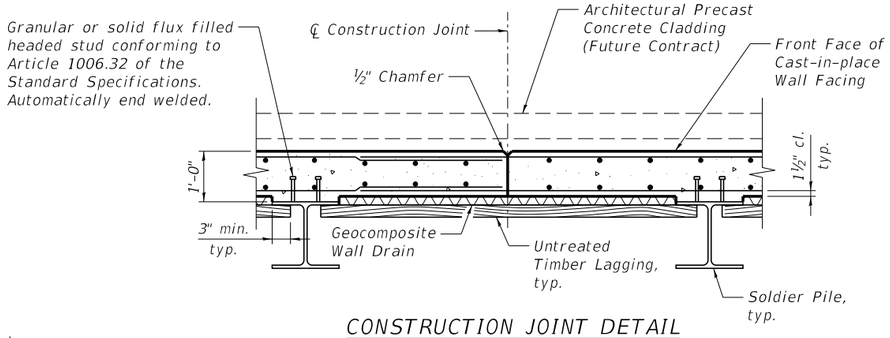
WALL ELEVATION TABLE

Wall	Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D
Wall E	8016+26.59	32.51' Lt.	13.58	-0.33	16.58	-2.33
	8016+46.85	46.88' Lt.	12.78	6.42	15.78	4.42
	8016+49.59	75.49' Lt.	12.19	7.78	15.19	5.78
	8016+50.62	66.85' Lt.	12.36	7.53	15.36	5.53
	8016+47.82	48.80' Lt.	12.74	6.97	15.74	4.97
	8016+44.40	110.70' Lt.	11.30	7.67	14.30	5.67
	8016+37.74	145.70' Lt.	10.21	7.29	13.21	5.17
	8016+29.96	179.91' Lt.	9.13	7.31	12.13	4.09
Wall F	8015+96.71	32.25' Lt.	13.68	-0.20	16.68	-2.20
	8015+75.44	32.25' Lt.	13.62	5.93	16.62	3.93
	8015+58.50	32.25' Lt.	13.48	10.44	16.48	8.44
	8015+48.68	32.25' Lt.	13.37	13.06	16.37	8.33
Wall G	8015+94.60	32.25' Rt.	13.74	0.74	16.74	-1.38
	8015+68.97	32.25' Rt.	13.64	6.61	16.64	4.61
	8015+52.48	32.25' Rt.	13.51	10.46	16.51	8.46
	8015+40.63	32.25' Rt.	13.36	13.23	16.36	8.32
Wall H	8016+28.66	32.25' Rt.	13.62	0.91	16.62	-1.09
	8016+43.39	32.25' Rt.	13.54	2.29	16.54	0.29
	8016+49.51	32.81' Rt.	13.50	2.86	16.50	0.86
	8016+53.77	33.20' Rt.	13.47	3.02	16.47	1.02
	8016+58.04	33.60' Rt.	13.45	2.86	16.45	0.86
	8016+60.55	33.82' Rt.	13.43	2.63	16.43	0.63
	5000+05.70	36.15' Rt.	13.26	0.28	16.26	-1.72

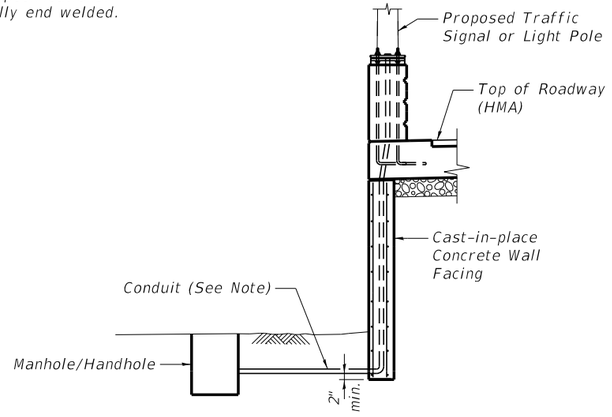
Elevation A - Finished Grade at Back Face of Wall (Top of Roadway)
Elevation B - Proposed Grade at Front Face of Wall
Elevation C - Top of Barrier Elevation
Elevation D - Bottom of Cast-in-place Wall Facing
Wall stations and offsets are measured from Proposed ℄ Cornell Dr. and Proposed ℄ Hayes Dr. to front of Cast-in-place Wall Facing (not including architectural precast concrete cladding).



EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL



RETAINING WALL CONDUIT INSTALLATION DETAIL

NOTE:

See Sheet SI-27, Traffic Signals plans and Electrical plans for additional traffic signal and lighting details.

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FILE NAME = ABC-sht-6250-soldierdetails-001.dgn	USER NAME = jsurber	DESIGNED - PAB/JPM	REVISED -
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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOLDIER PILE WALL DETAILS (1 OF 2)
STRUCTURE NO. 016-6250
SHEET NO. SI-15 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1132
	CDOT PROJECT NO. B-7-203	SN 016-6250		
	ILLINOIS FED. AID PROJECT			

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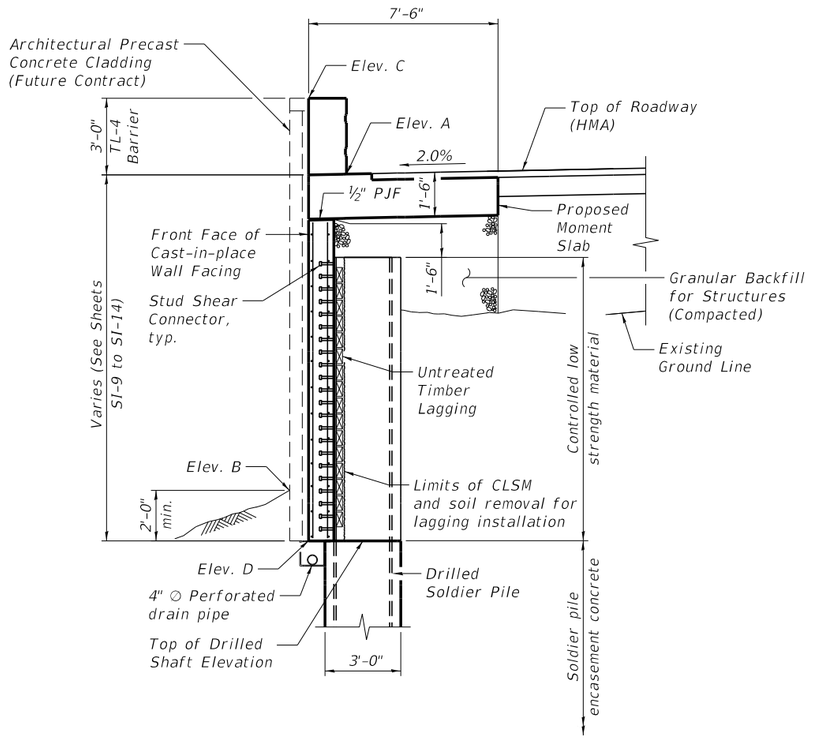
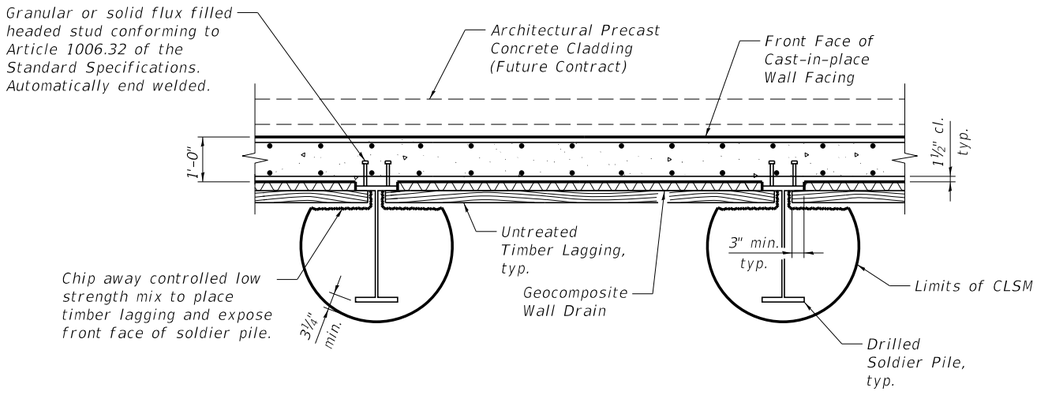
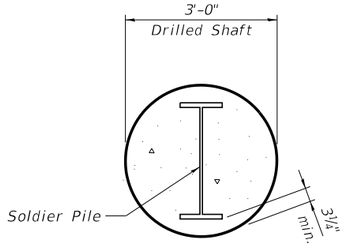


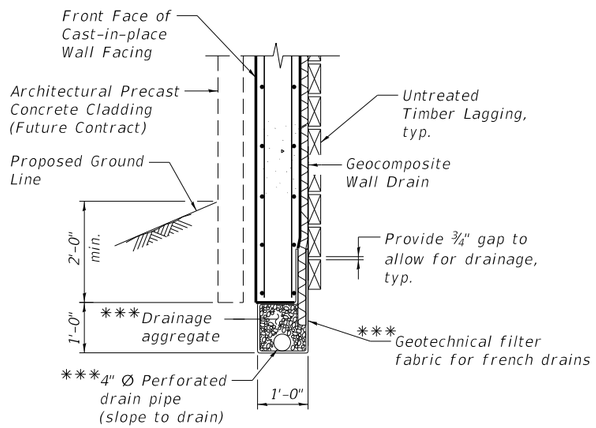
TYPICAL RETAINING WALL SECTION AT DRILLED SOLDIER PILE



SECTION THRU DRILLED SOLDIER PILE WALL

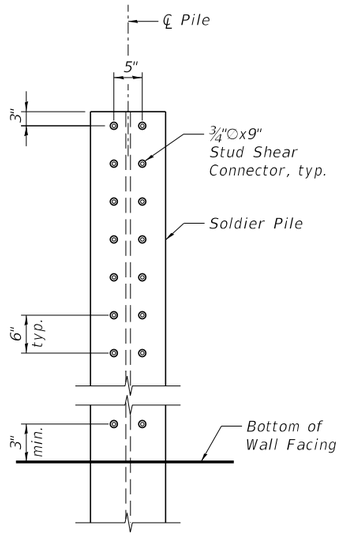


SOLDIER PILE ENCASEMENT



UNDERDRAIN DETAIL BETWEEN SOLDIER PILES

***Included in the cost of Pipe Underdrains for Structures, 4" (See Special Provisions).



SHEAR STUD DETAIL

NOTES:

1. Temporary casing may be required for granular and intermediate soils and shall conform to Article 516.06 of the Standard Specifications.
2. For Elevations A thru D, see Wall Elevation Table on Sheet SI-15.

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FILE NAME = ABC-sht-6250-soldierdetails-002.dgn	USER NAME = jsurber	DESIGNED - PAB/JPM	REVISED -
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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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DEPARTMENT OF TRANSPORTATION
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SOLDIER PILE WALL DETAILS (2 OF 2)
STRUCTURE NO. 016-6250
SHEET NO. SI-16 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1133
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS FED. AID PROJECT				

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SOLDIER PILE DATA TABLE – WINGWALL E

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W24x146	3'-0"	8016+30.26	33.30' Lt.	+10.50	+0.67	-2.25	-28.00	38.5'	46
2	W24x146	3'-0"	8016+37.13	36.41' Lt.	+10.35	+2.67	-0.15	-26.15	36.5'	38
3	W24x146	3'-0"	8016+42.94	41.34' Lt.	+9.99	+4.67	+1.99	-24.01	34.0'	28
4	HP14x117	–	8016+47.31	47.74' Lt.	+9.72	+6.67	–	-13.28	23.0'	18
5	HP14x117	–	8016+49.98	55.16' Lt.	+9.56	+7.18	–	-12.94	22.5'	16
6	HP14x117	–	8016+50.84	63.08' Lt.	+9.40	+7.42	–	-12.60	22.0'	14
7	HP14x117	–	8016+50.14	71.03' Lt.	+9.24	+7.66	–	-12.26	21.5'	14
8	HP14x117	–	8016+49.16	78.95' Lt.	+9.08	+7.78	–	-12.42	21.5'	12
9	HP14x117	–	8016+48.09	86.85' Lt.	+8.89	+7.77	–	-12.11	21.0'	12
10	HP14x117	–	8016+46.95	94.74' Lt.	+8.69	+7.76	–	-12.31	21.0'	10
11	HP14x117	–	8016+45.73	102.60' Lt.	+8.49	+7.75	–	-12.01	20.5'	10
12	HP14x117	–	8016+44.52	109.96' Lt.	+8.28	+7.68	–	-12.22	20.5'	10
13	HP14x117	–	8016+43.21	117.54' Lt.	+8.06	+7.60	–	-12.44	20.5'	8
14	HP14x117	–	8016+41.83	125.10' Lt.	+7.83	+7.51	–	-12.67	20.5'	8
15	HP14x117	–	8016+40.39	132.63' Lt.	+7.59	+7.43	–	-12.41	20.0'	8
16	HP14x117	–	8016+38.89	140.14' Lt.	+7.35	+7.35	–	-12.65	20.0'	6
17	HP14x117	–	8016+37.34	147.63' Lt.	+7.10	+7.27	–	-12.90	20.0'	6
18	HP14x117	–	8016+35.73	155.09' Lt.	+6.86	+7.25	–	-12.64	19.5'	6
19	HP14x117	–	8016+34.07	162.52' Lt.	+6.62	+7.27	–	-12.88	19.5'	6
20	HP14x117	–	8016+32.35	169.92' Lt.	+6.38	+7.29	–	-12.62	19.0'	6
21	HP14x117	–	8016+30.59	177.30' Lt.	+6.16	+7.30	–	-12.84	19.0'	6

SOLDIER PILE DATA TABLE – WINGWALL F

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W24x146	3'-0"	8015+92.95	32.25' Lt.	+10.63	+0.94	-1.87	-26.37	37.0'	46
2	W24x146	3'-0"	8015+85.44	32.25' Lt.	+10.62	+3.22	+0.37	-23.88	34.5'	36
3	W24x146	3'-0"	8015+77.93	32.25' Lt.	+10.60	+5.27	+2.35	-21.90	32.5'	28
4	HP14x117	–	8015+69.48	32.25' Lt.	+10.60	+7.52	–	-11.90	22.5'	20
5	HP14x117	–	8015+61.03	32.25' Lt.	+10.60	+9.77	–	-9.40	20.0'	10
6	HP14x117	–	8015+52.58	32.25' Lt.	+10.60	+12.02	–	-7.40	18.0'	8

SOLDIER PILE DATA TABLE – WINGWALL G

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W24x146	3'-0"	8015+90.32	32.25' Rt.	+10.69	+1.62	-1.06	-23.81	34.5'	42
2	W24x146	3'-0"	8015+81.77	32.25' Rt.	+10.66	+3.62	+0.91	-21.84	32.5'	34
3	W24x146	3'-0"	8015+73.21	32.25' Rt.	+10.63	+5.62	+2.88	-19.87	30.5'	26
4	HP14x117	–	8015+63.58	32.25' Rt.	+10.55	+7.87	–	-18.45	29.0'	16
5	HP14x117	–	8015+53.96	32.25' Rt.	+10.47	+10.12	–	-16.03	26.5'	8
6	HP14x117	–	8015+44.32	32.25' Rt.	+10.36	+12.37	–	-13.64	24.0'	6

SOLDIER PILE DATA TABLE – WINGWALL H

Pile Number	Pile Size	Drilled Shaft Diameter	Station at F.F. of Wall	Offset at F.F. of Wall	Top of Pile Elev.	Finished Grade Elev. at F.F. of Wall	Top of Drilled Shaft Elev.	Pile Tip Elev.	Length of Pile	No. of Shear Studs
1	W24x146	3'-0"	8016+33.33	32.25' Rt.	+10.55	+1.35	-1.45	-24.95	35.5'	44
2	W24x146	3'-0"	8016+42.95	32.25' Rt.	+10.50	+2.25	-0.50	-25.00	35.5'	40
3	W24x146	3'-0"	8016+52.54	33.09' Rt.	+10.44	+2.98	+0.19	-25.06	35.5'	36
4	W24x146	3'-0"	8016+62.15	33.97' Rt.	+10.38	+2.48	-0.37	-25.12	35.5'	38
5	W24x146	3'-0"	8016+71.78	34.86' Rt.	+10.32	+1.58	-1.18	-25.18	35.5'	42
6	W24x146	3'-0"	*5000+01.40	*35.75' Rt.	+10.24	+0.68	-2.26	-25.26	35.5'	46

* Station and Offset measured from Proposed ℄ Hayes Dr. to front face of Cast-in-place Wall.

NOTES:

1. Bottom of panel shall be placed at a minimum of 2'-0" below proposed ground line.
2. Elevations shall be verified in the field and may be adjusted as directed by the Engineer.
3. Stations and offsets for piles taken at F.F. of Cast-in-place Wall and measured from Proposed ℄ Cornell Dr. unless noted otherwise.
4. F.F. denotes Front Face.

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DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOLDIER PILE DATA TABLES
STRUCTURE NO. 016-6250
SHEET NO. SI-17 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1134
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

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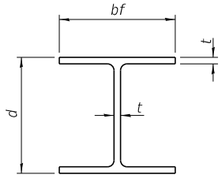
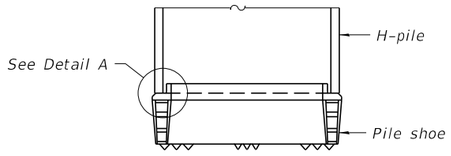
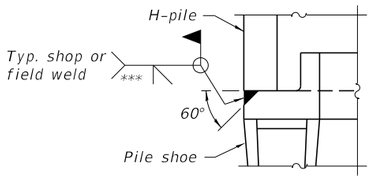


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



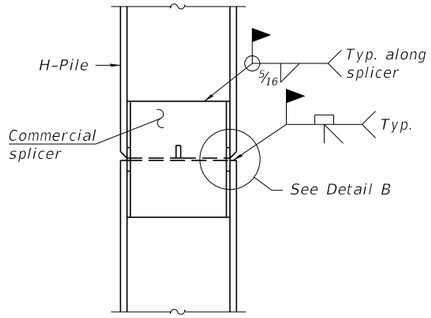
ELEVATION



DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



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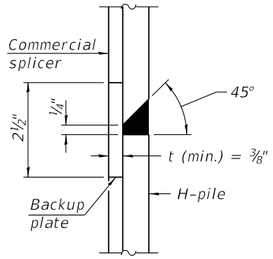
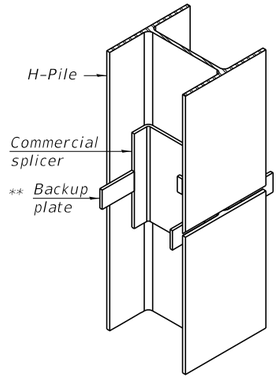
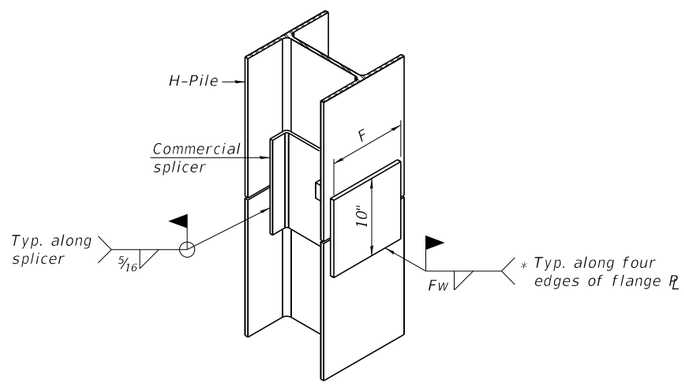


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



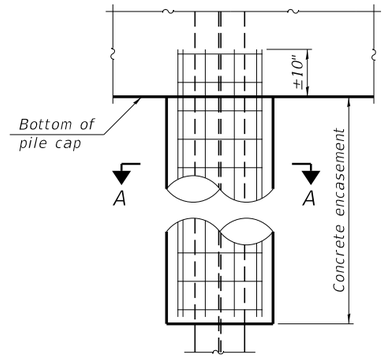
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

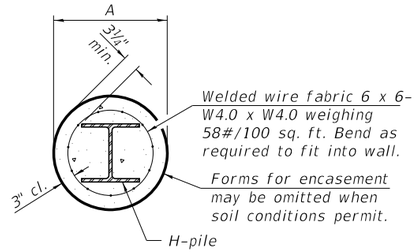
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (3/16" min.).



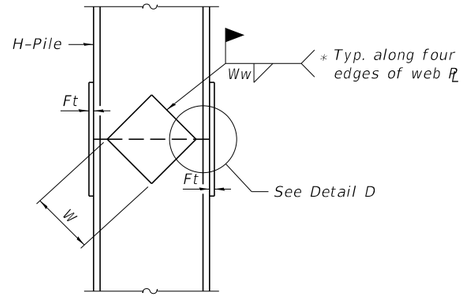
ELEVATION



SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

(when specified)



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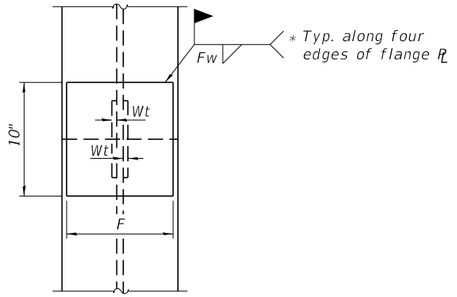
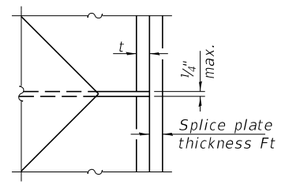


END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

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HP PILE DETAILS
STRUCTURE NO. 016-6250
SHEET NO. SI-18 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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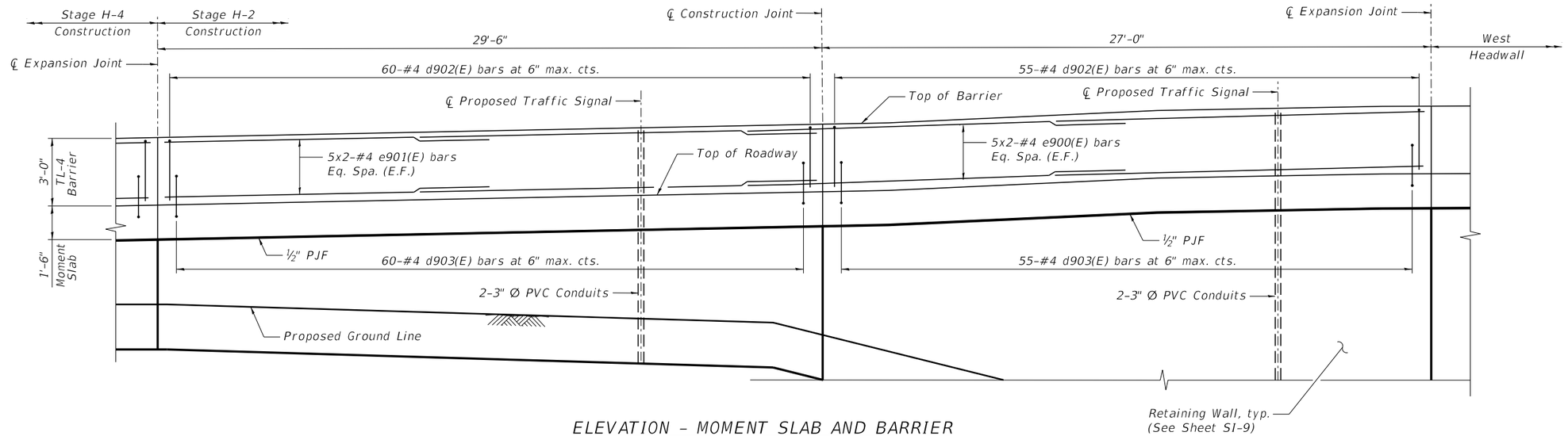
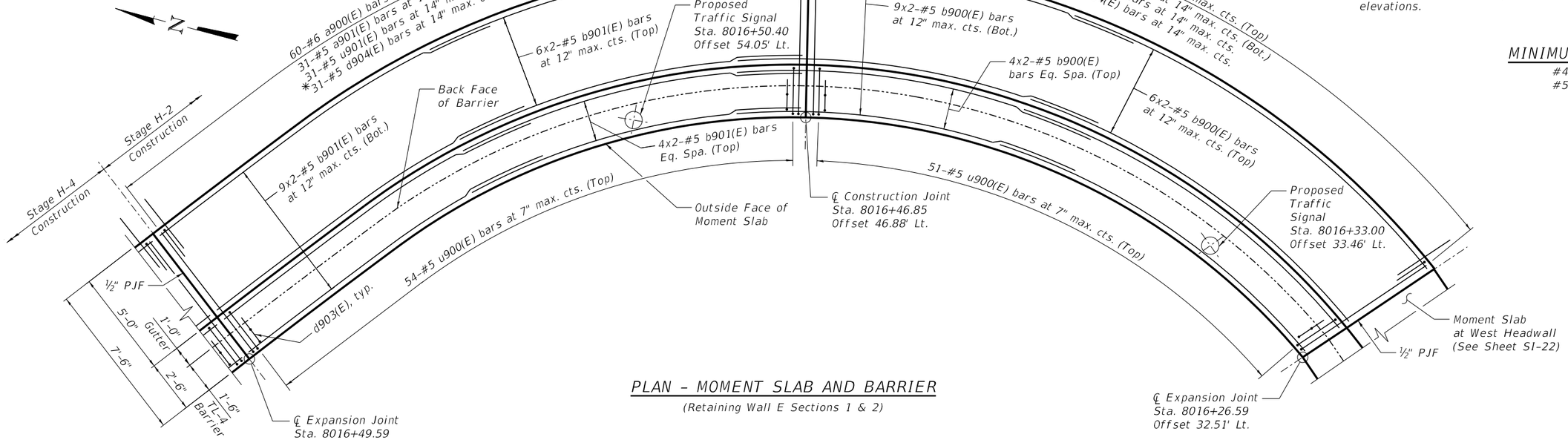
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				



ELEVATION – MOMENT SLAB AND BARRIER

(Retaining Wall E Sections 1 & 2)

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.



PLAN – MOMENT SLAB AND BARRIER

(Retaining Wall E Sections 1 & 2)

NOTES:

1. See Sheet SI-27 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Cornell Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SI-27 for conduit details and additional notes.
6. See Sheet SI-15 for Top of Barrier and Top of Roadway elevations.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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MOMENT SLAB PLAN AND ELEVATION (1 OF 8)
STRUCTURE NO. 016-6250
SHEET NO. SI-19 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1136
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ILLINOIS FED. AID PROJECT				

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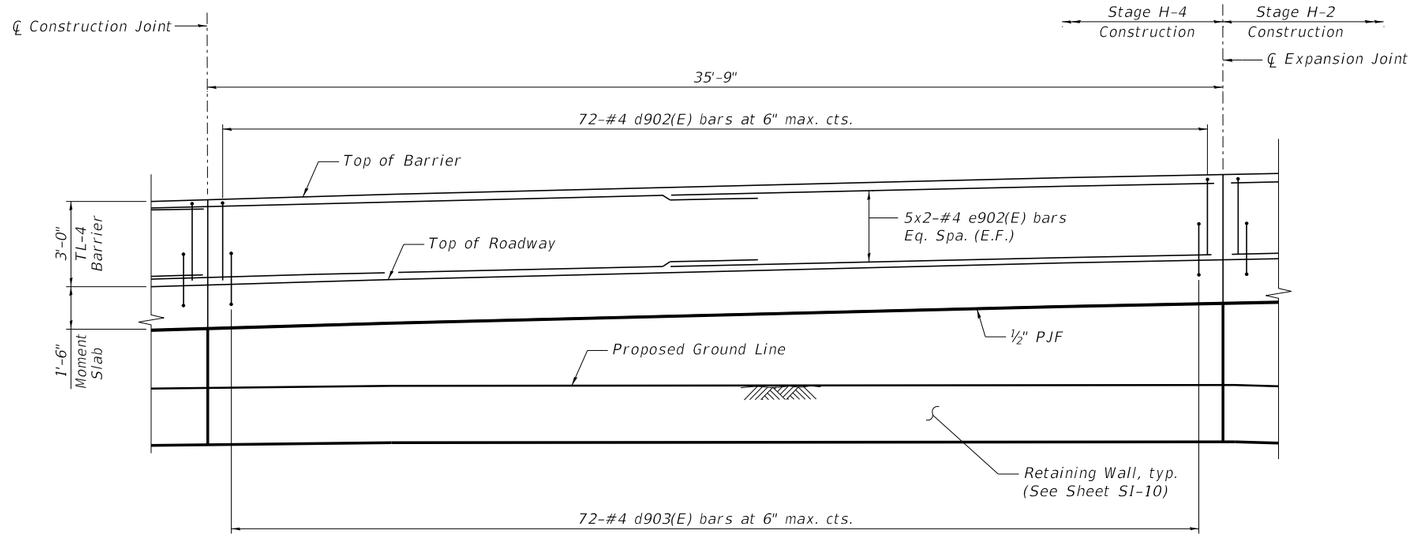
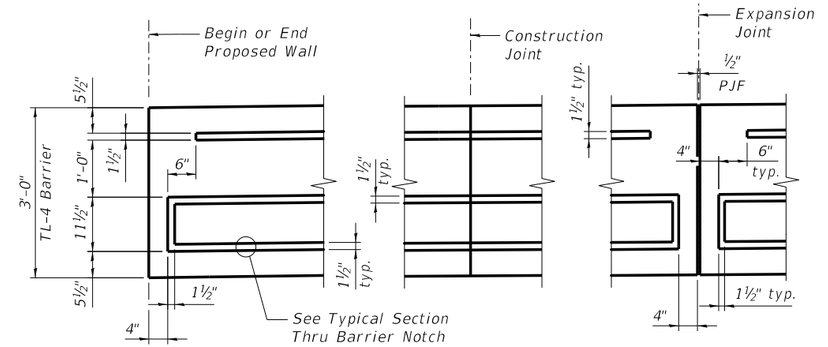
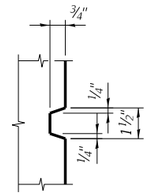


ELEVATION - MOMENT SLAB AND BARRIER

(Retaining Wall E Section 3)

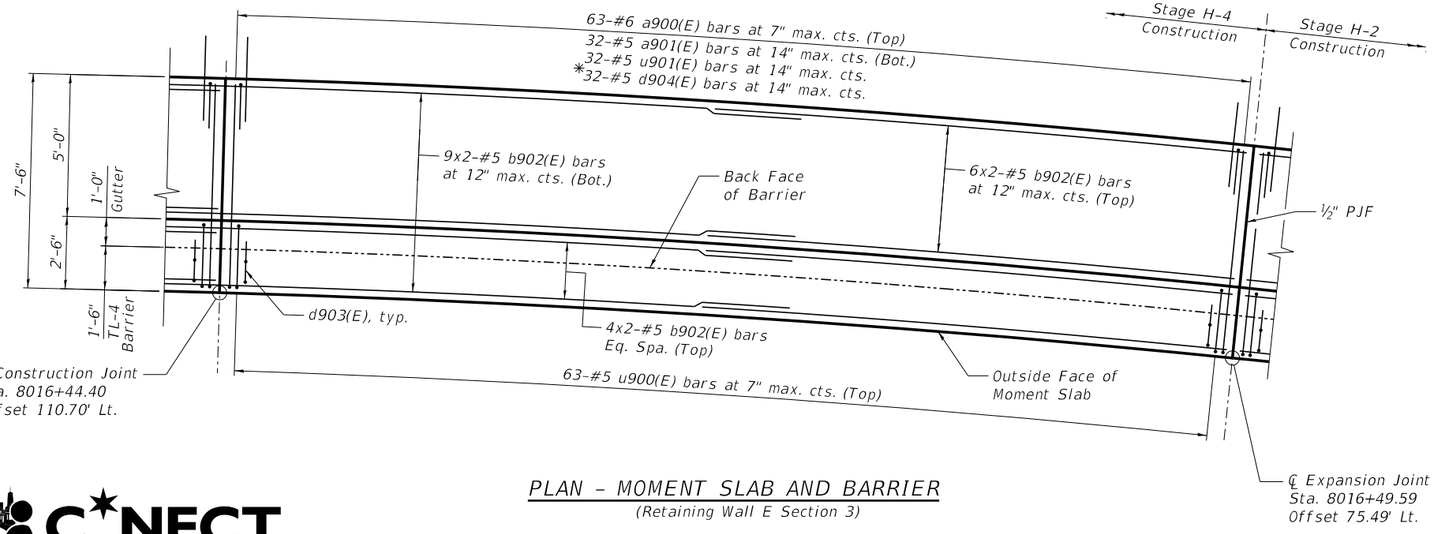


TYPICAL BARRIER NOTCH LAYOUT DETAIL



TYPICAL SECTION THRU BARRIER NOTCH

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.



PLAN - MOMENT SLAB AND BARRIER

(Retaining Wall E Section 3)

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SI-27 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Cornell Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SI-15 for Top of Barrier and Top of Roadway elevations.

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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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DEPARTMENT OF TRANSPORTATION
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MOMENT SLAB PLAN AND ELEVATION (2 OF 8)
STRUCTURE NO. 016-6250
SHEET NO. SI-20 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1137
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	ILLINOIS FED. AID PROJECT			

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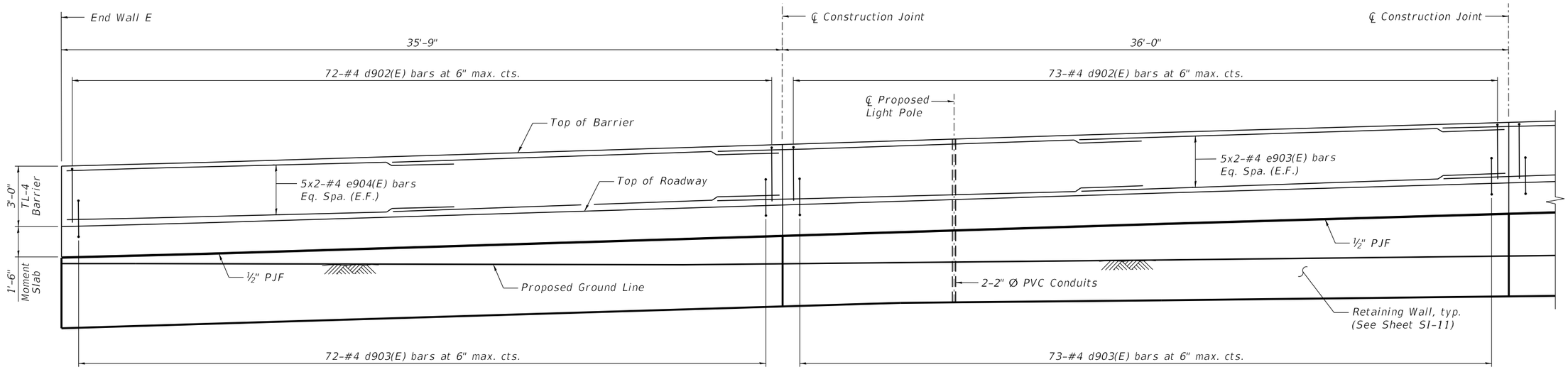


ELEVATION - MOMENT SLAB AND BARRIER

(Retaining Wall E Sections 4 & 5)

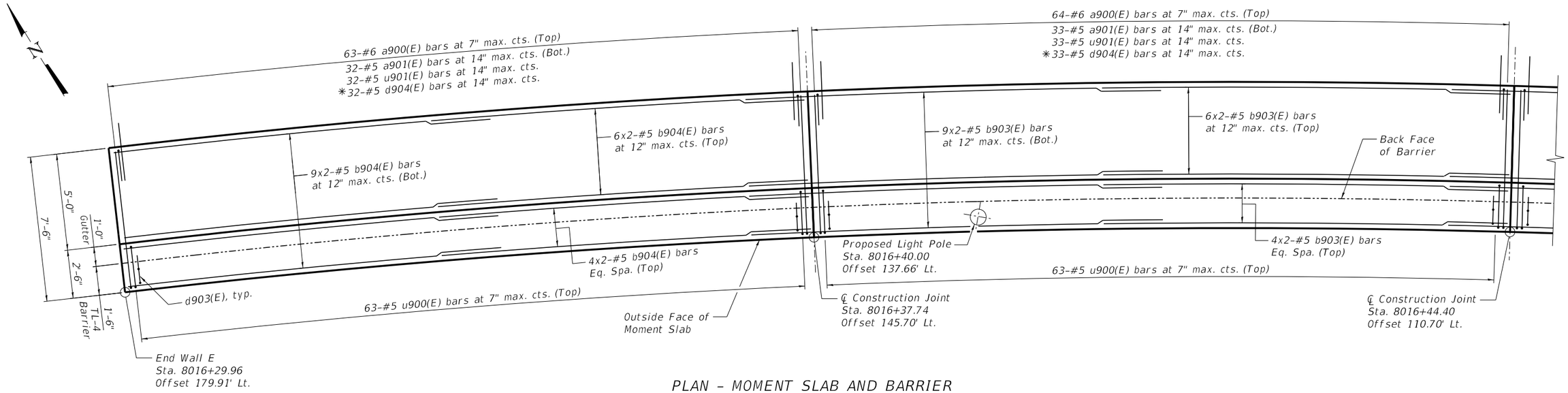
*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SI-27 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Cornell Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SI-27 for conduit details and additional notes.
6. See Sheet SI-15 for Top of Barrier and Top of Roadway elevations.



PLAN - MOMENT SLAB AND BARRIER

(Retaining Wall E Sections 4 & 5)

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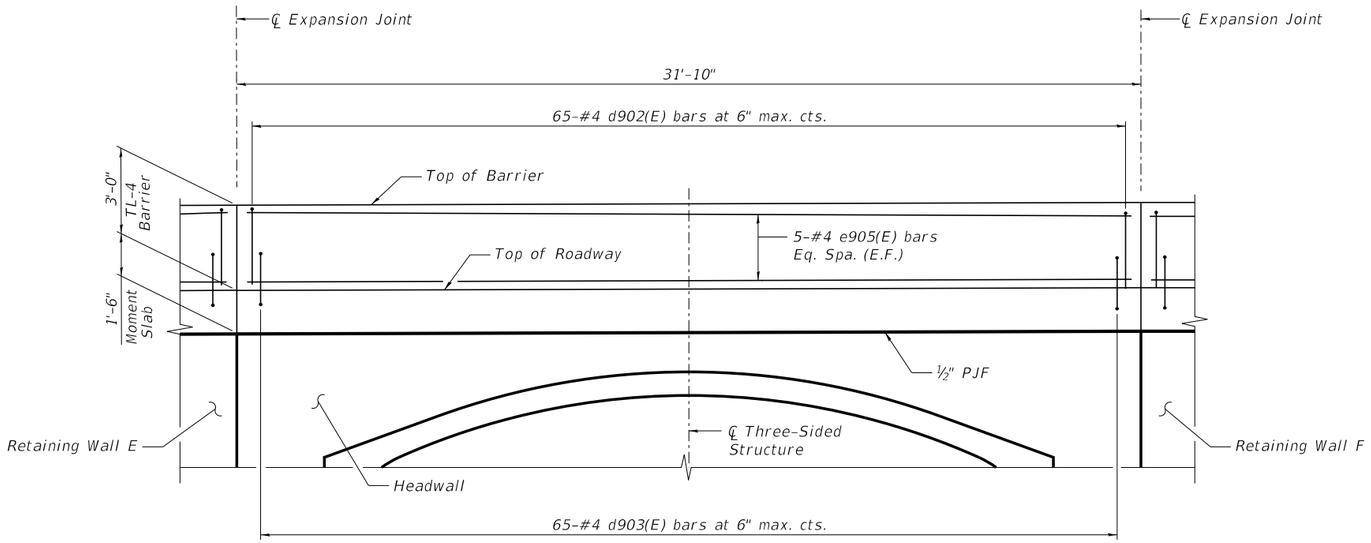
FILE NAME = ABC-sht-6250-momslab-003.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

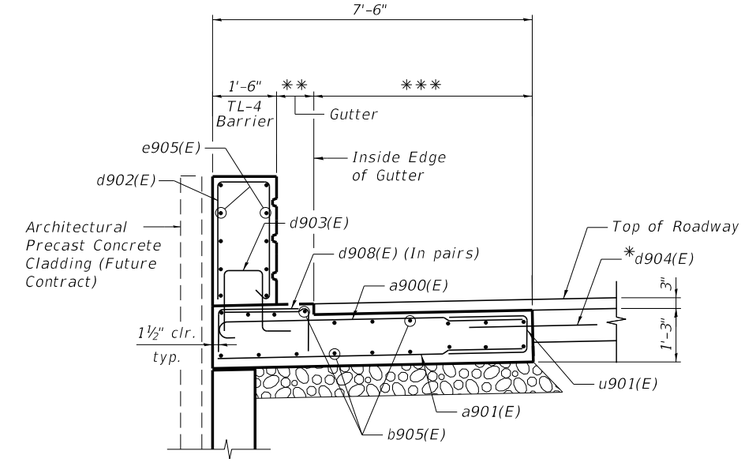
MOMENT SLAB PLAN AND ELEVATION (3 OF 8)
STRUCTURE NO. 016-6250
SHEET NO. SI-21 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1138
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				



ELEVATION – MOMENT SLAB AND BARRIER

(West Headwall)

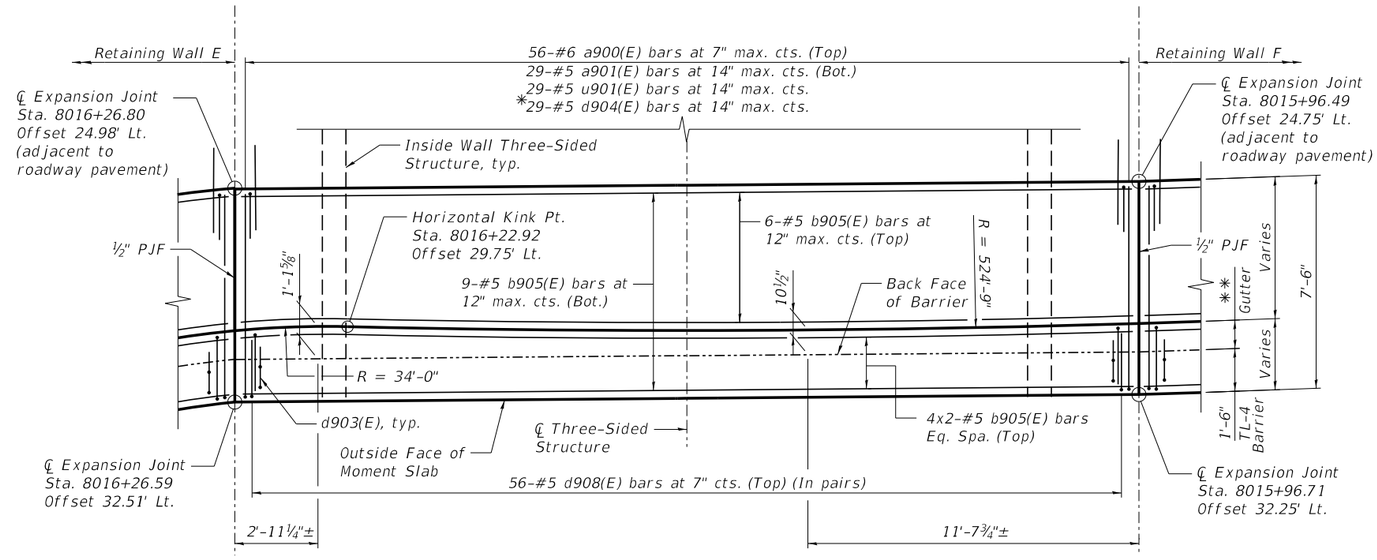


TYPICAL SECTION AT WEST HEADWALL

** Dimension varies from 10½" to 1'-1⅝"

*** Dimension varies from 5'-1½" to 4'-10⅜"

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.



PLAN – MOMENT SLAB AND BARRIER

(West Headwall)

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SI-27 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Cornell Dr. to outside face of moment slab unless noted otherwise (not including architectural precast concrete cladding).
5. See Sheet SI-15 for Top of Barrier and Top of Roadway elevations.
6. Gutter width varies as shown in Plan and Typical Section. See Civil plans for additional geometric information.

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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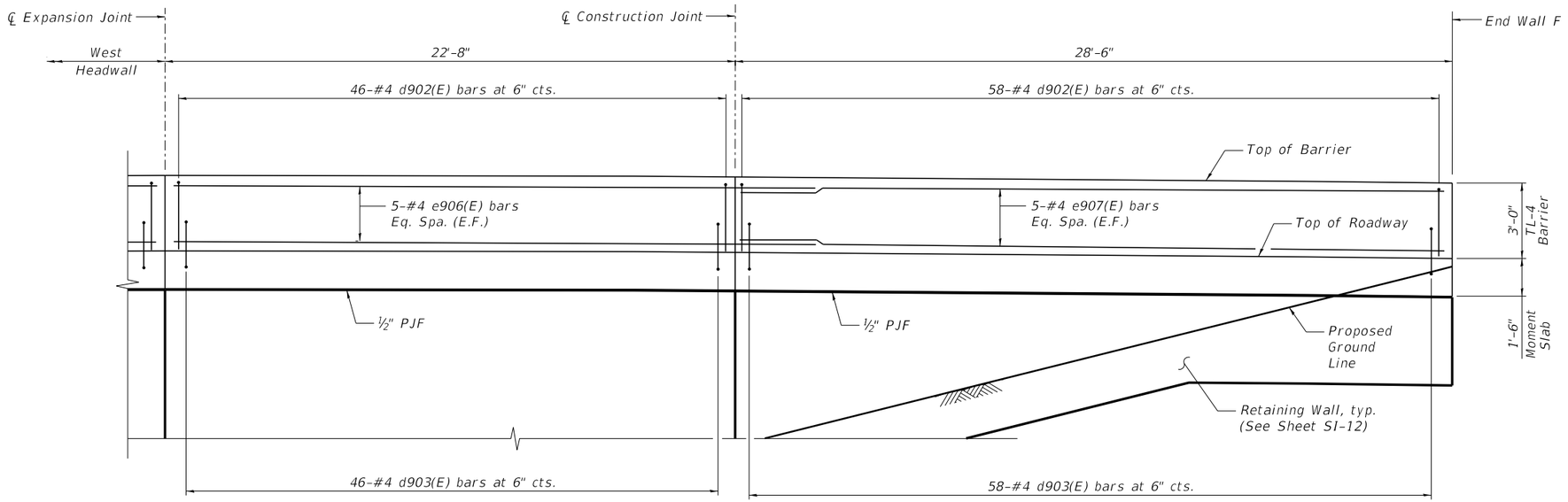
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (4 OF 8)
STRUCTURE NO. 016-6250
SHEET NO. SI-22 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1139
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS FED. AID PROJECT				

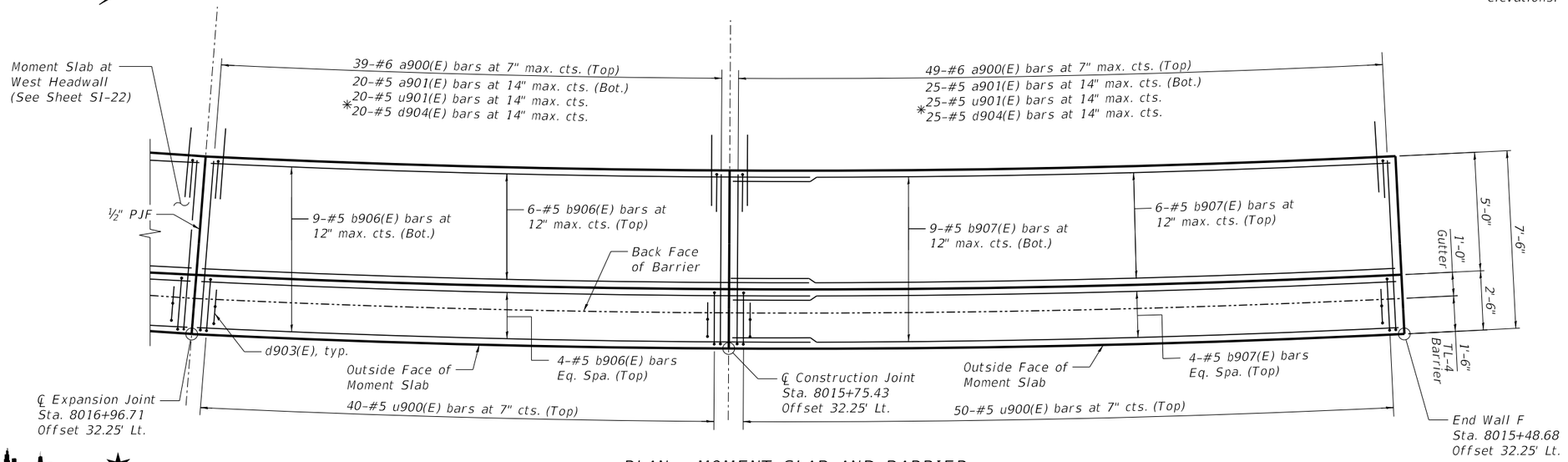


ELEVATION - MOMENT SLAB AND BARRIER
(Retaining Wall F)

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP
#4 = 2'-8"
#5 = 3'-10"

NOTES:
1. See Sheet SI-27 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Cornell Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SI-15 for Top of Barrier and Top of Roadway elevations.



PLAN - MOMENT SLAB AND BARRIER
(Retaining Wall F)

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	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

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DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (5 OF 8)
STRUCTURE NO. 016-6250
SHEET NO. SI-23 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1140
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS	FED. AID PROJECT			

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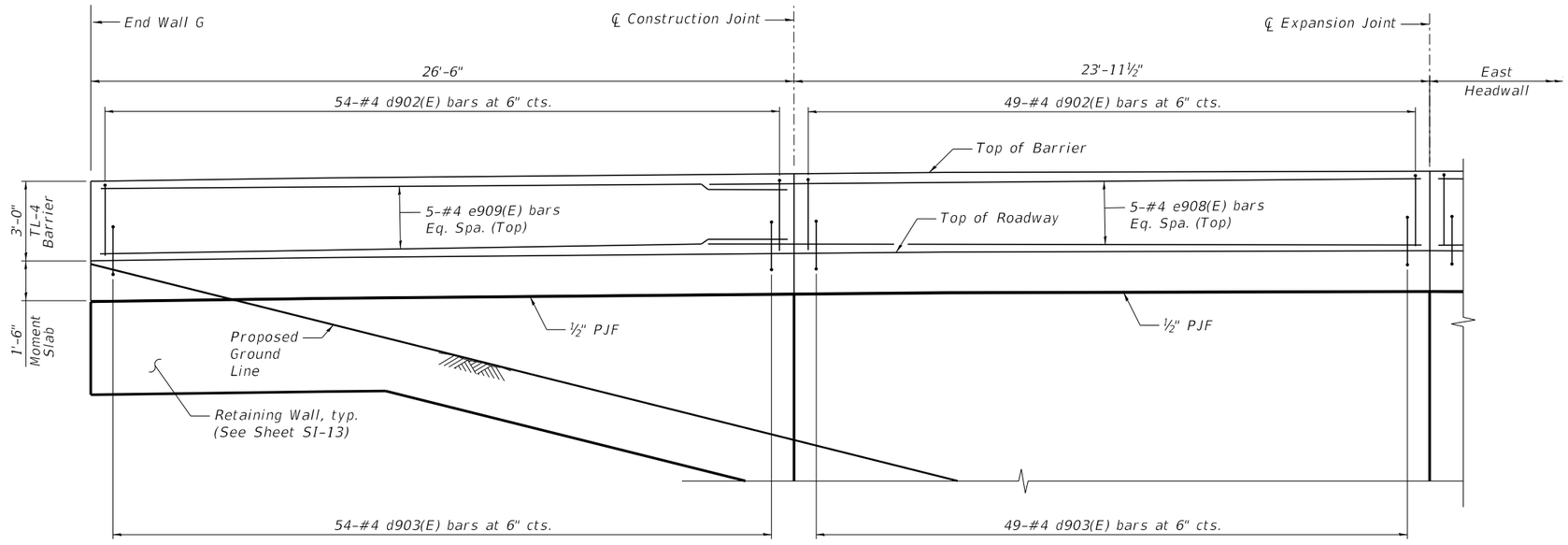
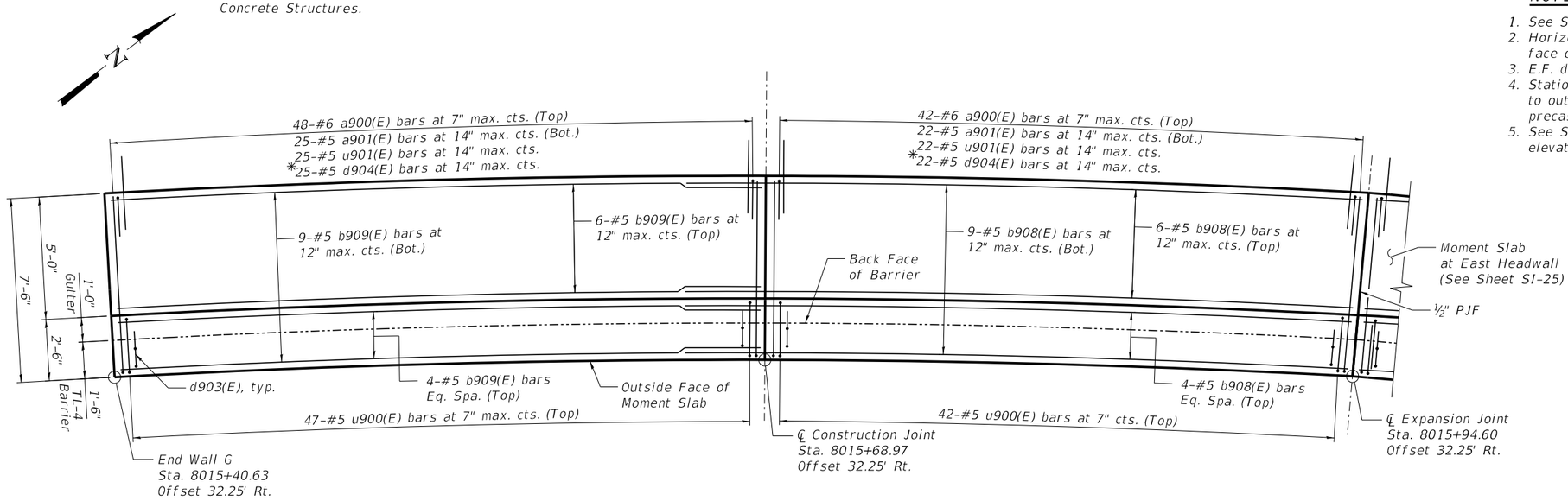


ELEVATION - MOMENT SLAB AND BARRIER

(Retaining Wall G)

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.



PLAN - MOMENT SLAB AND BARRIER

(Retaining Wall G)

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SI-27 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Cornell Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SI-15 for Top of Barrier and Top of Roadway elevations.

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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (6 OF 8)
STRUCTURE NO. 016-6250
SHEET NO. SI-24 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1141
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

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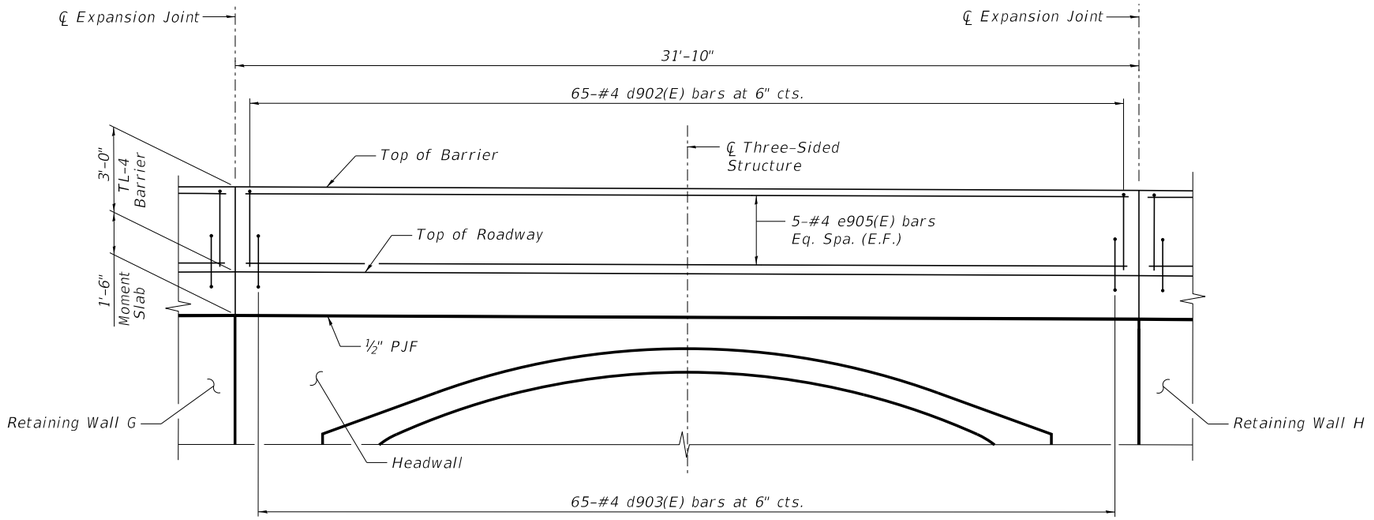
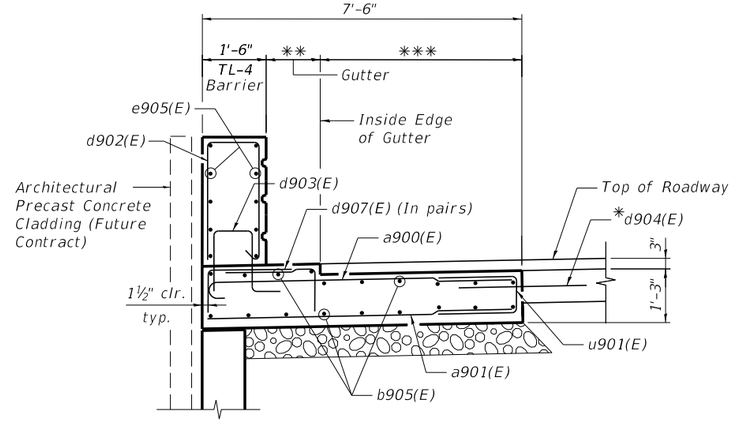


ELEVATION – MOMENT SLAB AND BARRIER

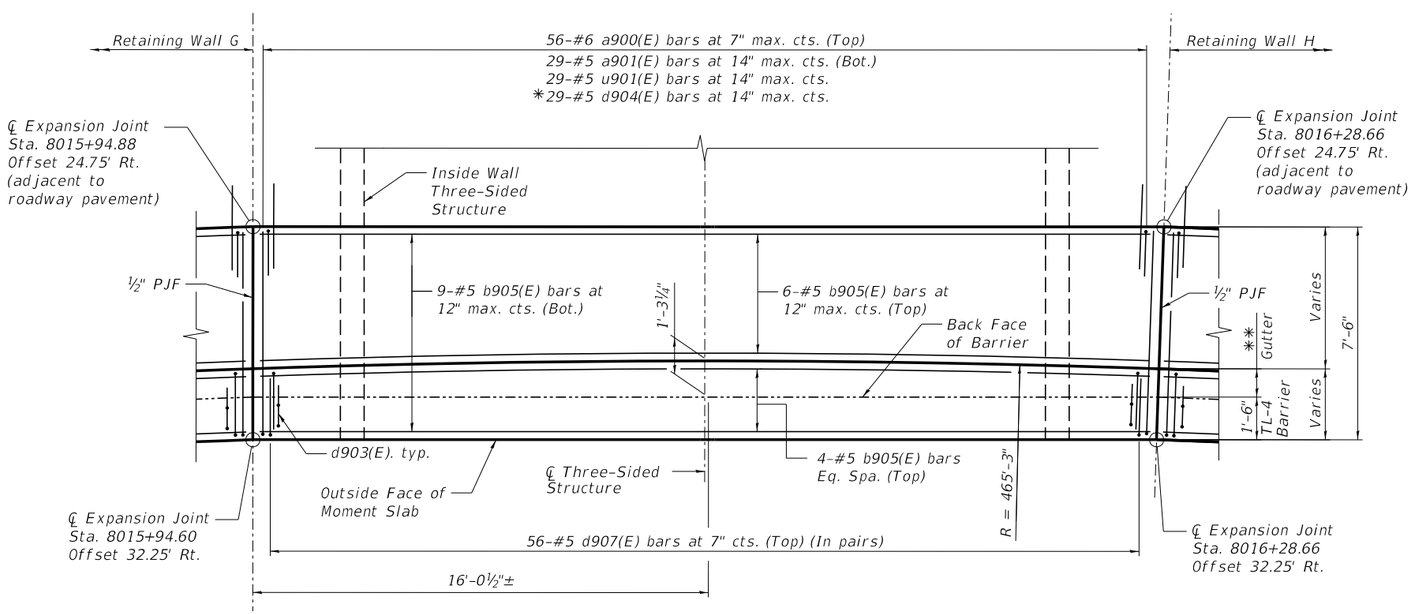
(East Headwall)



TYPICAL SECTION AT EAST HEADWALL

** Dimension varies from 1'-0" to 1'-3¼"

*** Dimension varies from 5'-0" to 4'-8¾"



PLAN – MOMENT SLAB AND BARRIER

(East Headwall)

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SI-27 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Cornell Dr. to outside face of moment slab unless noted otherwise (not including architectural precast concrete cladding).
5. See Sheet SI-15 for Top of Barrier and Top of Roadway elevations.
6. Gutter width varies as shown in Plan and Typical Section. See Civil plans for additional geometric information.

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FILE NAME = ABC-sht-6250-momslab-007.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
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	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (7 OF 8)
STRUCTURE NO. 016–6250
SHEET NO. SI-25 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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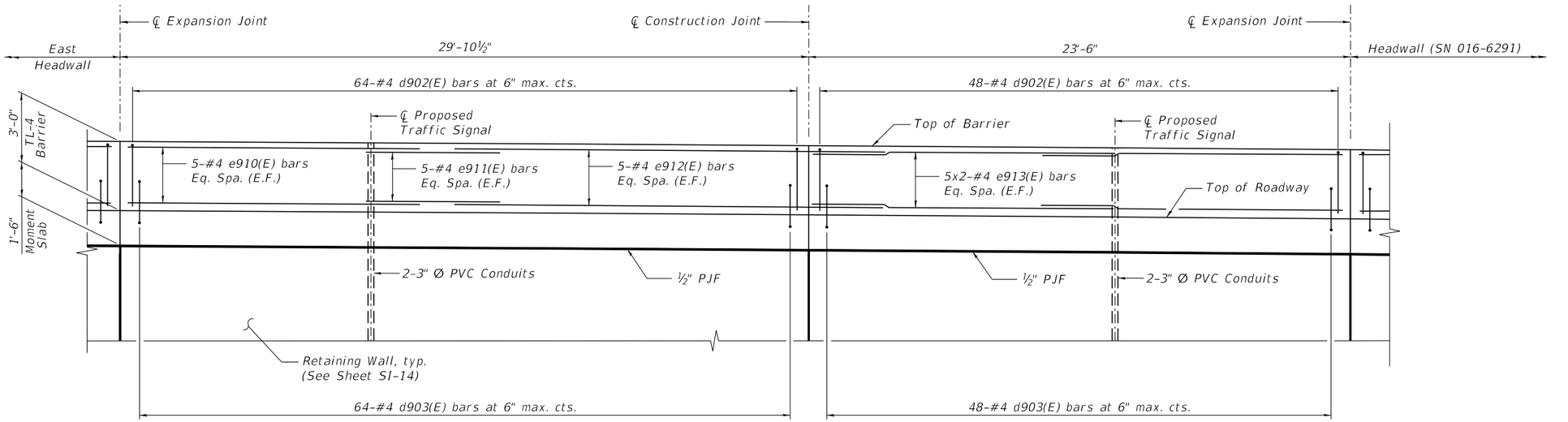
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				



ELEVATION – MOMENT SLAB AND BARRIER

(Retaining Wall H)

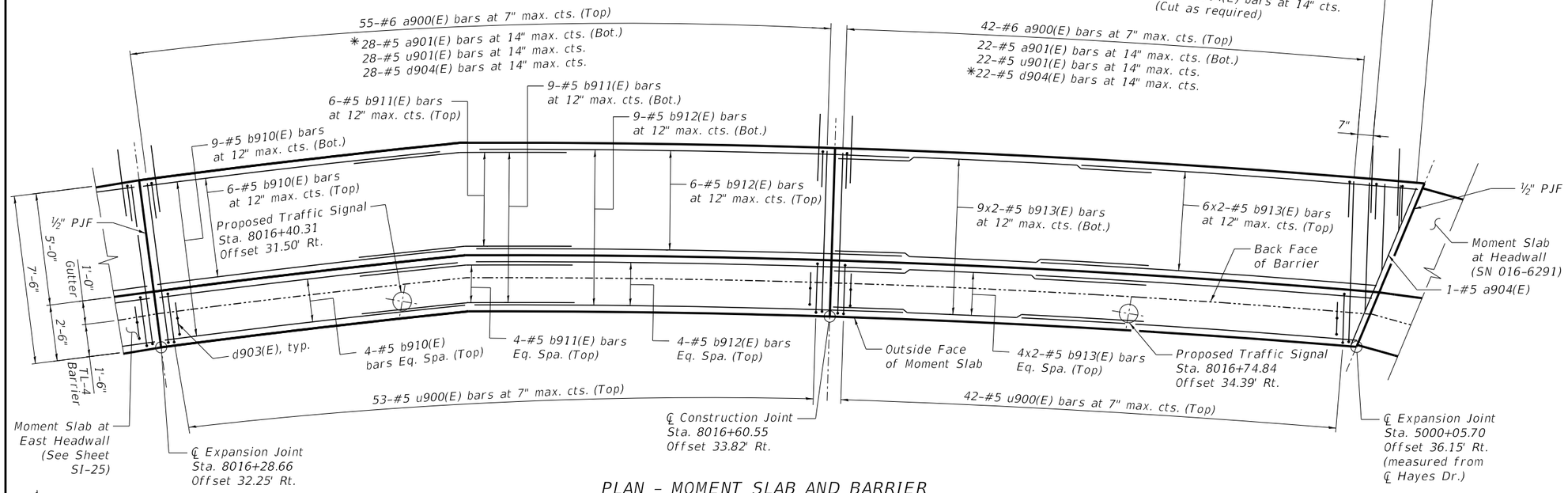
*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

MINIMUM BAR LAP

#4 = 2'-8"
#5 = 3'-10"

NOTES:

1. See Sheet SI-27 for Moment Slab Details and Bill of Material.
2. Horizontal dimensions and lengths are measured along outside face of moment slab.
3. E.F. denotes Each Face.
4. Stations and offsets are measured from Proposed ℄ Cornell Dr. to outside face of moment slab (not including architectural precast concrete cladding).
5. See Sheet SI-27 for conduit details and additional notes.
6. See Sheet SI-15 for Top of Barrier and Top of Roadway elevations.



PLAN – MOMENT SLAB AND BARRIER

(Retaining Wall H)

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FILE NAME = ABC-sht-6250-momslab-008.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB PLAN AND ELEVATION (8 OF 8)
STRUCTURE NO. 016–6250
SHEET NO. SI-26 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

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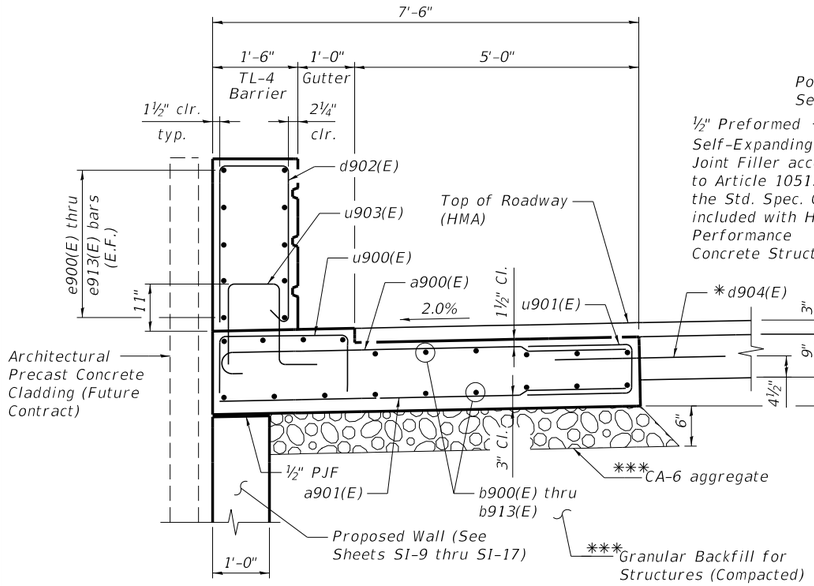
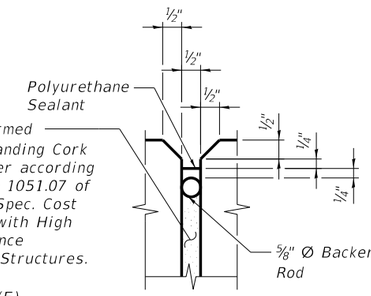


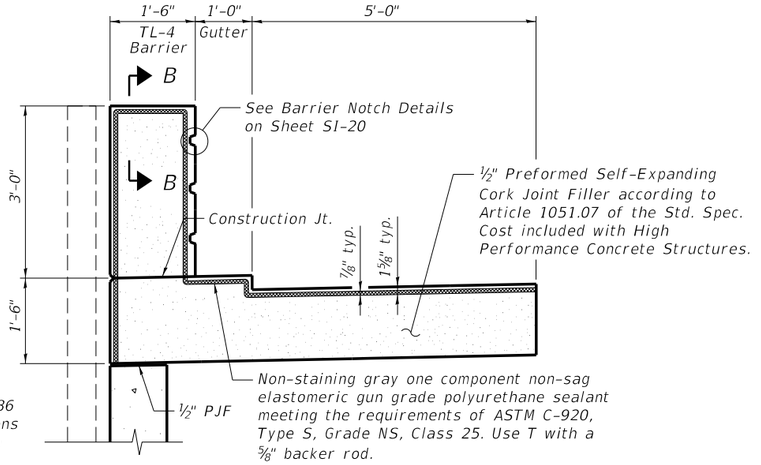
TYPICAL SECTION

*Bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with High Performance Concrete Structures.

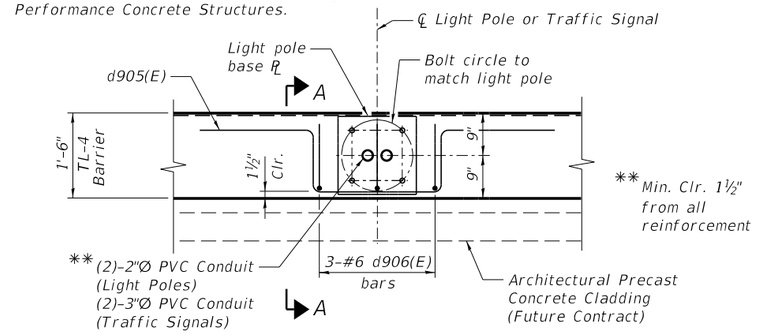
***Backfill shall be placed per Article 586 of the 2019 Supplemental Specifications except mechanical compaction shall be required per Articles 502 and 205 of the Standard Specifications. Cost of CA-6 aggregate specific layer below moment slab included with Granular Backfill for Structures.



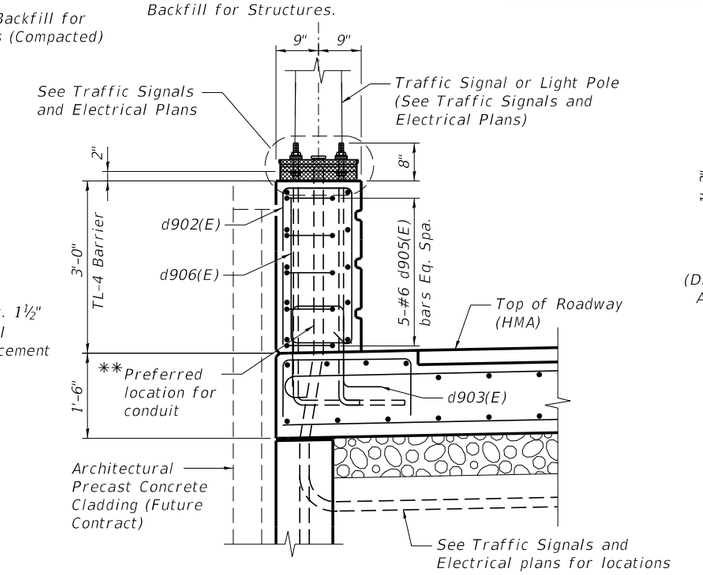
SECTION B-B



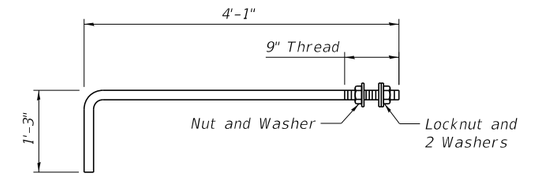
FULL HEIGHT EXPANSION JOINT DETAILS



PLAN - LIGHT POLE AND TRAFFIC SIGNAL BASE

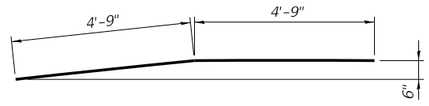


SECTION A-A

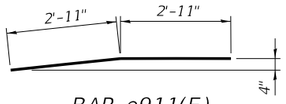


ANCHOR ROD

(Diameter as specified for light poles and traffic signals, ASTM F1554, Grade 105, full length hot dip galvanized)



BAR b911(E)

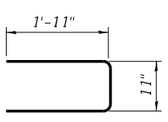


BAR e911(E)

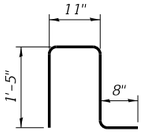
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a900(E)	695	#6	7'-11"	
a901(E)	358	#5	7'-3"	
a902(E)	3	#6	5'-7"	
a903(E)	2	#5	4'-11"	
a904(E)	1	#5	7'-7"	
b900(E)	38	#5	20'-11"	
b901(E)	38	#5	19'-1"	
b902(E)	38	#5	22'-0"	
b903(E)	38	#5	21'-10"	
b904(E)	38	#5	19'-8"	
b905(E)	38	#5	31'-7"	
b906(E)	19	#5	26'-6"	
b907(E)	19	#5	28'-3"	
b908(E)	19	#5	27'-10"	
b909(E)	19	#5	26'-3"	
b910(E)	19	#5	13'-7"	
b911(E)	19	#5	9'-6"	
b912(E)	19	#5	20'-0"	
b913(E)	38	#5	14'-10"	
d902(E)	781	#4	7'-1"	
d903(E)	781	#4	4'-5"	
d904(E)	360	#5	3'-0"	
d905(E)	20	#6	8'-5"	
d906(E)	12	#6	3'-7"	
e900(E)	20	#4	16'-10"	
e901(E)	20	#4	16'-5"	
e902(E)	20	#4	20'-8"	
e903(E)	20	#4	20'-9"	
e904(E)	20	#4	19'-2"	
e905(E)	20	#4	31'-7"	
e906(E)	10	#4	25'-4"	
e907(E)	10	#4	28'-3"	
e908(E)	10	#4	26'-9"	
e909(E)	10	#4	26'-5"	
e910(E)	10	#4	13'-7"	
e911(E)	10	#4	5'-10"	
e912(E)	10	#4	18'-11"	
e913(E)	20	#4	13'-3"	
u900(E)	680	#5	4'-5"	
u901(E)	360	#5	4'-9"	
High Performance Concrete Structures		Cu. Yd.	208.9	
Protective Concrete Sealer		Sq. Yd.	249	
Reinforcement Bars, Epoxy Coated		Pound	35,150	

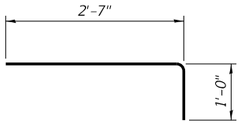
Bars indicated thus 9x2-#5 etc. indicate 9 lines of bars with 2 lengths per line.



BAR u901(E)



BAR d903(E)



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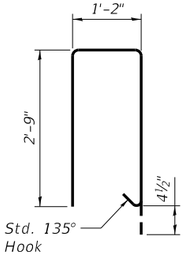

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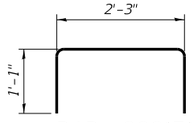

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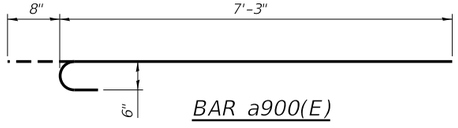
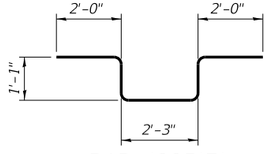


BAR a900(E)



BAR d905(E)

NOTES:

1. See Traffic Signals and Electrical plans for traffic signal and lighting details.
2. Cost of bond breaker, PJF, backer rod and sealant included with the cost of High Performance Concrete Structures.
3. Cost of anchor rods included with High Performance Concrete Structures.
4. Protective Concrete Sealer shall be applied to the entire top surface and inside vertical face of proposed barrier along with the entire top surface of the exposed gutter of the proposed moment slab.
5. See Sheet SI-20 for barrier notch details.

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FILE NAME = ABC-sht-6250-momdetails.dgn	USER NAME = jsurber	DESIGNED - PAB/MSH	REVISED -
		CHECKED - MFH	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

MOMENT SLAB DETAILS AND BILL OF MATERIAL
STRUCTURE NO. 016-6250
SHEET NO. SI-27 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1144
CDOT PROJECT NO.	B-7-203	SN 016-6250		
ILLINOIS FED. AID PROJECT				

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GSG CONSULTANTS, INC.
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SOIL BORING LOG

Page 1 of 2

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863283.26 Easting 1188512.902

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B10
Station 8015+57
Offset 13.30ft RT
Ground Surface Elev. 8.52 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 4.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
8.27						
3 inches of Topsoil						
Brown, Moist FILL: SILTY SAND, trace crushed stone and brick fragments		2 4 5		7		
4.52 ▼		2				
Brown and Gray, Wet FILL: SILTY SAND	-5	3 6		30		
2.02		5				
Loose to Medium Dense Gray, Wet SILTY SAND (SM)		7 9		23		
		5				
	-10	7 7		28		
		3				
		7 9		21		
		4				
	-15	5 5		24		
-7.98		1				
Very Soft to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		2 2	0.2 B	24		
		1				
	-20	1 1	0.2 B	22		

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)

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SOIL BORING LOG

Page 2 of 2

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863283.26 Easting 1188512.902

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B10
Station 8015+57
Offset 13.30ft RT
Ground Surface Elev. 8.52 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 4.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		1				
		2 2	1.0 B	21		
		2				
	-25	3 4	2.9 B	17		
		2				
		5 6	1.7 B	18		
		2				
-21.48	-30	3 4	1.5 B	19		
End of Boring						
	-35					
	-40					

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)

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SOIL BORING LOG

Page 1 of 2

Date 7/27/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863354.764 Easting 1188597.545

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B11
Station 8016+71
Offset 25.70ft RT
Ground Surface Elev. 7.98 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
7.65						
4 inches of Topsoil						
Brown, Moist FILL: SAND		2 3 4		9		
3.98		1				
Brown, Black, and Gray, Very Moist FILL: SILTY CLAY, trace sand and gravel	-5	1 2	0.3 P	33		
1.48 ▼		3				
Medium Dense Gray, Wet SILTY SAND (SM)		8 12		27		
		4				
	-10	6 5		31		
		3				
		8 11		22		
		9				
-6.52	-15	7 7		19		
Medium Dense Gray, Moist SILT, with sand (ML)		1				
-9.02		1 1	0.2 B	19		
Very Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		1				
	-20	2 2	0.3 P	20		

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)

C*NECT
CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6250-boring-001.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (1 OF 7)
STRUCTURE NO. 016-6250
SHEET NO. SI-28 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1145
	CDOT PROJECT NO. B-7-203		SN 016-6250	
	ILLINOIS FED. AID PROJECT			

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SOIL BORING LOG

Page 2 of 2

Date 7/27/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863354.764 Easting 1188597.545

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B11
Station 8016+71
Offset 25.70ft RT
Ground Surface Elev. 7.98 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.5 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		1				
		2 3	0.2 B	18		
		1				
-25		3 4	0.4 B	19		
		2				
		3 3	1.3 B	18		
		3				
-22.02 -30		2 5	1.5 B	21		
End of Boring						
-35						
-40						

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)

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SOIL BORING LOG

Page 1 of 2

Date 7/25/15

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863322.261 Easting 1188466.973

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B12
Station 8015+60
Offset 46.90ft LT
Ground Surface Elev. 8.92 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.9 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
4 inches of Asphalt 7 inches of Concrete 7 inches of Aggregate Base Coarse		7				
7.42 Brown, Moist FILL : SAND, trace crushed stone		6 4		16		
5.42 Dark Gray, Moist FILL : SAND, little gravel		20				
-5		29 13		11		
3.42 Medium Dense Gray, Wet SILTY SAND (SM)		5				
1.92		9 12		22		
Medium Dense Gray, Very Moist SILTY LOAM (ML)		3				
-10		7 9		25		
-2.08 Medium Dense Gray, Wet SILTY SAND (SM)		5 10 9		23		
-4.08 Loose Gray, Very Moist SILT, trace sand (ML)		5				
-15		5 4		28		
Sand seam at 16 ft -7.08 Very Soft to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		3 2 2	0.2 B	23		
		1				
-20		2 2	0.2 B	21		

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)

GSG CONSULTANTS, INC.
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SOIL BORING LOG

Page 2 of 2

Date 7/25/15

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863322.261 Easting 1188466.973

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B12
Station 8015+60
Offset 46.90ft LT
Ground Surface Elev. 8.92 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.9 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		1				
		2 2	0.4 B	23		
		2				
-25		3 4	3.1 B	21		
		4				
		4 5	2.9 B	20		
		4				
-21.08 -30		4 7		NR		
End of Boring						
-35						
-40						

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)

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6250-boring-002.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (2 OF 7)
STRUCTURE NO. 016-6250
SHEET NO. SI-29 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1146
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS	FED. AID PROJECT			

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SOIL BORING LOG

Date 7/25/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863380.702 Easting 1188550.36

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B13
Station 4013+37
Offset 21.60ft RT
Ground Surface Elev. 7.58 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.6 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
4 inches of Topsoil 7.25						
Brown, Moist FILL: SAND		2				
		6 5		9		
4.58						
Brown, Black, and Gray, Moist FILL: SAND, trace gravel		2				
	-5	7 3		15		
1.58 ▼						
Loose Gray, Wet SANDY LOAM (SM)		5 4		27		
-0.42						
Medium Dense Gray, Very Moist SILTY LOAM (ML)		7				
	-10	7 6		26		
-2.92						
Loose to Medium Dense Gray, Wet SANDY LOAM (SM)		4				
		6 6		25		
		5				
	-15	4 3		28		
-8.42						
Very Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		2				
		2 3	0.2 B	20		
		2				
	-20	2 2	0.2 B	21		

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)

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SOIL BORING LOG

Date 7/25/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863380.702 Easting 1188550.36

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B13
Station 4013+37
Offset 21.60ft RT
Ground Surface Elev. 7.58 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.6 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		2				
		2 3	0.4 B	20		
		2				
	-25	3 4	1.0 B	19		
		3				
		3 4	1.3 B	18		
		2				
-22.42	-30	4 5	1.7 B	18		
End of Boring						
	-35					
	-40					

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)

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SOIL BORING LOG

Date 7/25/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863426.433 Easting 1188481.242

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B14
Station 4012+50
Offset 29.80ft RT
Ground Surface Elev. 8.12 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.1 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
2 inches of Asphalt 12 inches of Concrete 7.95 / 7.12		8				
Brown and Gray FILL: SILTY SAND and CRUSHED STONE 6.12		9 5		0		
Brown, Moist FILL: SAND		2				
	-5	3 4		9		
1.12 ▼		2				
Loose to Medium Dense Brown and Gray, Wet SILTY SAND (SM)		3 3		20		
		3				
	-10	6 7		24		
-1.88						
Medium Dense Gray, Very Moist SILTY LOAM (ML)		2				
-4.38		5 6		25		
Medium Dense Gray, Wet SILTY SAND (SM)		7				
	-15	9 8		25		
-8.88		3				
Very Soft to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		5 8	0.2 B	26		
		2				
	-20	2 2	0.4 B	24		

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)

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FILE NAME = ABC-sht-6250-boring-003.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (3 OF 7)
STRUCTURE NO. 016-6250
SHEET NO. SI-30 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1147
	CDOT PROJECT NO. B-7-203	SN 016-6250		
	ILLINOIS FED. AID PROJECT			

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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/25/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863426.433 Easting 1188481.242

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B14
Station 4012+50
Offset 29.80ft RT
Ground Surface Elev. 8.12 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.1 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		1				
		2 2	0.4 B	21		
		2				
-25		2 2	0.4 B	20	115.1	
		2				
		3 5	1.5 B	16		
		2				
-30		3 4	1.7 B	17		
-25.38						
Very Stiff to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		8				
-35		8 9	3.1 B	12		
		8				
-40		12 13	5.2 B	13		

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)

GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
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SOIL BORING LOG

Date 7/25/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863426.433 Easting 1188481.242

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B14
Station 4012+50
Offset 29.80ft RT
Ground Surface Elev. 8.12 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.1 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Stiff to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*		5				
-45		9 9	5.6 B	13		
		8				
-50		12 23	3.3 B	12		
-41.88						
End of Boring						
-55						
-60						

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)

GSG CONSULTANTS, INC.
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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863448.792 Easting 1188403.248

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B15
Station 4011+65
Offset 51.30ft RT
Ground Surface Elev. 7.95 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.0 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
10 inches of Topsoil						
7.12		4				
Brown, Moist FILL: SAND, trace gravel		4 5		6		
3.95		3				
Brown, Black, and Gray, Moist FILL: SILTY SAND, trace gravel		2 2		11		
-5 2.45						
Medium Dense Brown and Gray, Wet SILTY SAND (SM)		4				
		6 5		26		
-0.05						
Medium Dense Gray, Very Moist SILTY, trace sand (ML)		3				
-2.05 -10		5 8		32		
Medium Dense Gray, Wet SANDY LOAM (SM)		6				
		8 10		23		
-5.05						
Loose to Medium Dense Gray, Wet Sand, little silt (SP)		5				
-15		7 9		20		
		3				
-10.05		2 2		20		
Soft to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		1				
-20		1 2	0.4 B	22		

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)

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6250-boring-004.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (4 OF 7)
STRUCTURE NO. 016-6250
SHEET NO. SI-31 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1148
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

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GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 7/26/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863448.792 Easting 1188403.248

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B15
Station 4011+65
Offset 51.30ft RT
Ground Surface Elev. 7.95 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 2.0 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Soft to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*						
		1				
		2 2	0.6 B	23		
		1				
-25		2 3	0.4 B	22		
		1				
		2 4	1.0 B	21		
		3				
-22.05	-30	5 5	5.0 P	19		
End of Boring						
-35						
-40						

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)

GSG CONSULTANTS, INC.
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Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/6/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863366.201 Easting 1188533.578

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B17
Station 8016+32
Offset 25.80ft LT
Ground Surface Elev. 6.96 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.0 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
12 inches of Topsoil						
5.96		4				
Brown, Moist FILL: SILTY SAND, trace gravel		5 5		8		
		2				
-5		4 3		13		
0.96 ▼		4				
Medium Dense Brown and Gray, Wet SILTY SAND (SM)		6 5		26		
-1.54		3				
Very Loose to Medium Dense Gray, Wet SILTY SAND (SM)	-10	5 6		24		
		5				
		8 10		24		
		4				
	-15	5 6		24		
		1				
-10.04		2 1	0.3 P	26		
Very Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		1				
	-20	2 1	0.4 B	21	109.5	

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)

GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/6/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863366.201 Easting 1188533.578

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B17
Station 8016+32
Offset 25.80ft LT
Ground Surface Elev. 6.96 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.0 ft ▼
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*						
		1				
		2 3	0.4 B	20		
		2				
-25		2 4	1.0 B	19		
		2				
		3 4	0.8 B	18		
		2				
		5 6	1.0 B	20		
-25.04	-30					
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		8				
		8 10	5.2 B	12		
	-35					
		7				
		7 11	4.8 B	15		
	-40					

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)

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FILE NAME = ABC-sht-6250-boring-005.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (5 OF 7)
STRUCTURE NO. 016-6250
SHEET NO. SI-32 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1149
CDOT PROJECT NO. B-7-203		SN 016-6250		
ILLINOIS FED. AID PROJECT				

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GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/6/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863366.201 Easting 1188533.578

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B17
Station 8016+32
Offset 25.80ft LT
Ground Surface Elev. 6.96 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.0 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*						
		8				
-45		8 6	4.8 B	14		
		12				
-50		14 19	5.5 P	11		
		12				
-55		17 18	7.1 B	10		
		20				
-60		24 24	6.6 B	9		

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)

GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/6/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863366.201 Easting 1188533.578

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B17
Station 8016+32
Offset 25.80ft LT
Ground Surface Elev. 6.96 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 1.0 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*						
-57.04		26				
Fractured Limestone, fragments		50/3"	4.0 B	14		
-59.04						
Auger refusel at 66 ft Limestone - Gray Core Run = 1 (66 to 76) Recovery = 80% RQD = 73.3% (Fair)						
-69.04						
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)

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SOIL BORING LOG

Date 11/5/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863296.553 Easting 1188560.118

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B18
Station 8016+00
Offset 41.50ft RT
Ground Surface Elev. 6.44 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 0.4 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
5 inches of Topsoil 6.03						
Brown, Moist FILL: SILTY SAND, trace gravel		3				
		4 3		7		
2.44		2				
Loose to Medium Dense Brown, Wet SILTY SAND (SM)		2 2		26		
-0.06		3				
Very Loose to Medium Dense Gray, Wet SILTY SAND (SM)		5 6		26		
		4				
-10		6 10		23		
		5				
		9 12		21		
		4				
-15		3 4		21		
		2				
-10.56		1 1	0.2 B	24		
Very Soft Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML)		1				
-12.56		1 2		26		

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)

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FILE NAME = ABC-sht-6250-boring-006.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (6 OF 7)
STRUCTURE NO. 016-6250
SHEET NO. SI-33 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1150
	CDOT PROJECT NO. B-7-203		SN 016-6250	
	ILLINOIS FED. AID PROJECT			

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623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/5/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863296.553 Easting 1188560.118

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B18
Station 8016+00
Offset 41.50ft RT
Ground Surface Elev. 6.44 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 0.4 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Very Loose Gray, SILTY SAND (SM) *(continued)* -14.56						
		3				
Soft to Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		4 4	0.3 B	20	112.4	
		2				
-25		2 4	1.7 B	18		
		2				
		2 3	1.3 B	18		
		2				
-30		3 4	1.7 B	18		
-25.56						
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)						
		5				
-35		7 11	5.2 B	14		
		5				
-40		6 6	4.0 B	14		

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)

GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/5/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863296.553 Easting 1188560.118

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B18
Station 8016+00
Offset 41.50ft RT
Ground Surface Elev. 6.44 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 0.4 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)*						
		8				
-45		7 8	5.6 B	13		
		11				
-50		14 18	6.5 P	11		
		11				
-55		16 18	7.1 B	11		
		17				
-60		18 26	6.9 B	10		

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)

GSG CONSULTANTS, INC.
623 Cooper Court • Schaumburg, IL 60173
Tel: 630.994.2600 • Fax: 312.733.5612

SOIL BORING LOG

Date 11/5/18

ROUTE F.A.U. 1520 DESCRIPTION Hayes & Cornell LOGGED BY YB

SECTION 17-B7203-00-ES LOCATION Hayes & Cornell Northing 1863296.553 Easting 1188560.118

COUNTY Cook DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 016-6250
Station 8016+07

BORING NO. Hayes-Drive-B18
Station 8016+00
Offset 41.50ft RT
Ground Surface Elev. 6.44 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 0.4 ft
Upon Completion N/A ft
After ____ Hrs. N/A ft

NOTES:

DEPTH (ft)	GRAPHIC LOG	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)	ORGANIC (%)
Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) *(continued)* -57.16						
Auger refusel at 63.6 ft Limestone - Gray Core Run = 1 (64 to 74) Recovery = 100% RQD = 100% (Excellent)		50/1"		12		
-65						
-67.56						
End of Boring						
-70						
-75						
-80						

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)

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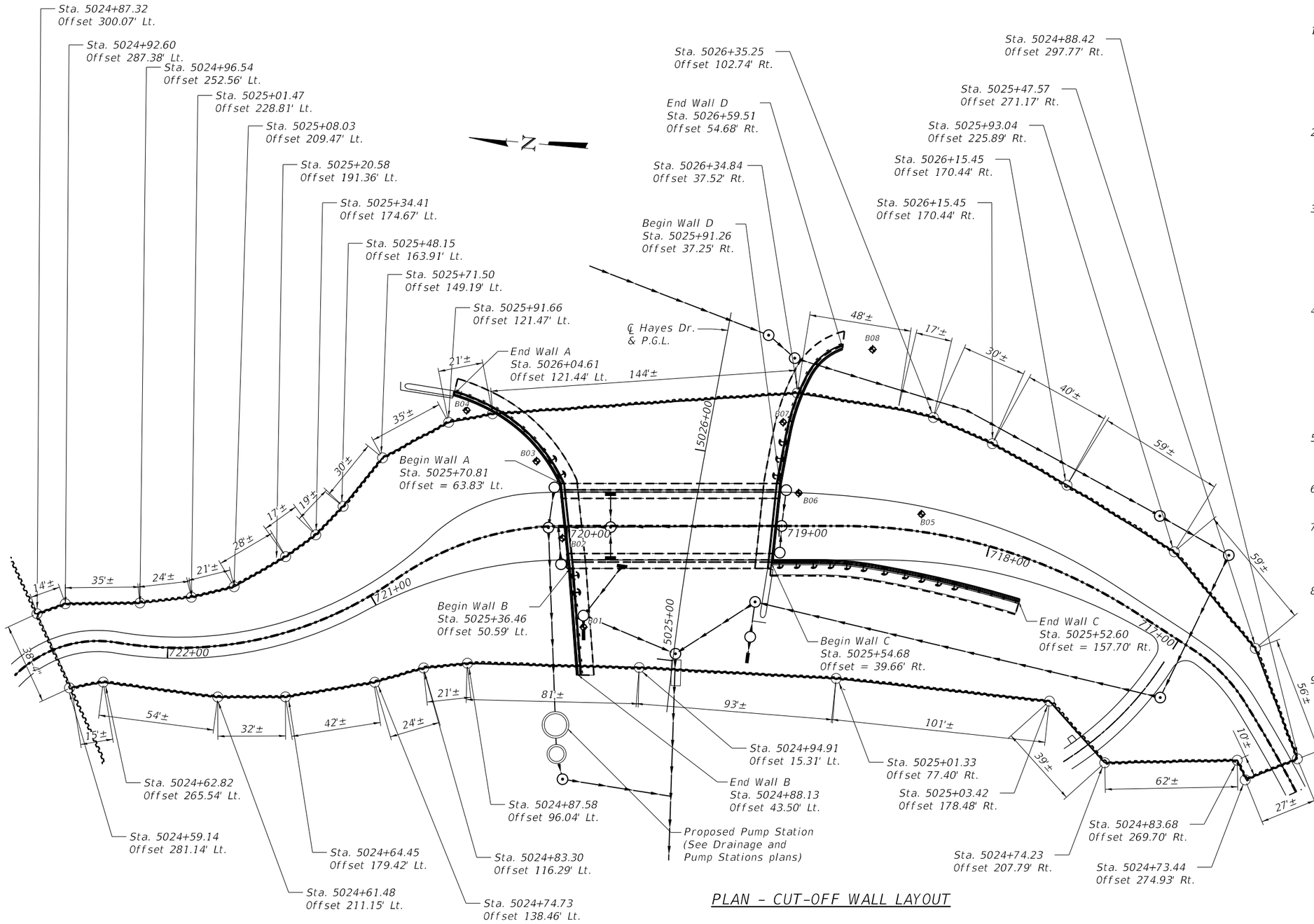
FILE NAME = ABC-sht-6250-boring-007.dgn	USER NAME = jsurber	DESIGNED - PAB	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 4/21/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

SOIL BORING LOGS (7 OF 7)
STRUCTURE NO. 016-6250
SHEET NO. SI-34 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	17-B7203-00-ES	COOK	1434	1151
	CDOT PROJECT NO. B-7-203		SN 016-6250	
		ILLINOIS	FED. AID PROJECT	



PLAN - CUT-OFF WALL LAYOUT

NOTES FOR CUT-OFF WALL:

1. The details and dimensions shown are based on the available existing information. The Contractor must verify all critical dimensions, locations, and elevations before ordering material or proceeding with construction. Should the actual driving conditions of sheet piles vary from plan details, the Contractor must submit revised details to the Engineer for approval.
2. Existing utilities are not shown on this sheet. It is the responsibility of the Contractor to verify all utilities. See Civil, Drainage and Utilities, Pump Stations, Water Main, Traffic Signals, and Electrical plans for more information.
3. The Contractor must field verify all utility locations. Sheet piling locations may need to be adjusted, if necessary, to avoid utility interference in accordance with the Special Provisions and as approved by the Engineer. See Civil, Drainage and Utilities, Pump Stations, Water Main, Traffic Signals, and Electrical plans for more information.
4. Prior to performing any excavation or demolition, the Contractor must provide temporary support for the existing utilities as necessary. Any damage to the existing utilities to remain must be repaired by the Contractor to the satisfaction of the Engineer and at no cost to the Commissioner. See Utility Penetration Detail on Sheet SJ-3 for more information. The Contractor is responsible for all temporary bracing required during construction.
5. The Contractor may encounter obstructions along the sheet pile driving line. See Special Provisions for driving sheet piles in these situations.
6. All metal sheet piling shall conform to the requirements of ASTM A-328 (AASHTO M 202).
7. See Special Provisions for water stop material for the cut-off wall. The Contractor must submit the procedure for applying water stop material and installation of the sheeting for approval.
8. All welding must be performed by certified welders in accordance with the latest specification of the AmericanWelding Society Standard, D1.1. All welding connections must be made with AWS A5.1 or A5.5 E70XX electrodes. All welding must be continuous unless otherwise noted.
9. Stations and offsets are measured from outside face of sheet pile cut-off wall along driving line to ℄ Hayes Dr. & P.G.L.

LEGEND

- Soil Boring
- *Steel Sheet Pile Driving Line
- ATT Existing Underground Telephone to remain in place
- CPD Existing Underground Electrical Cable to be removed and replaced
- CDOT Existing Underground Electrical Cable to be removed and replaced
- CPD Existing Underground Sanitary Sewer to be removed
- DWM Existing Underground Storm Sewer to be removed
- Proposed Drainage Storm Sewer
- Proposed Underground Sanitary Sewer
- CPD Proposed Electrical Conduit
- CPD Proposed Lighting Conduit
- CDOT Proposed Lighting Conduit
- OEMC Electrical Proposed Cable
- Proposed Manhole
- Proposed Catch Basin
- Lighting Existing Foundation

*See Driving Line Detail on Sheet SJ-3

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Cut-off Walls	Sq. Ft.	50,202

CUT-OFF WALL SCHEDULE

SEGMENT	TYPE	PILE SECTION	PILE TIP ELEVATION
ALL	CUT-OFF WALL	AZ 14	-30.0

CNECT, LLC | 1 N LaSalle Street, Suite 325, Chicago, IL 60602

FILE NAME = ABC-sht-6290-cutoff1.dgn	USER NAME = jsurber	DESIGNED - RRD	REVISED -	CITY OF CHICAGO DEPARTMENT OF TRANSPORATION DIVISION OF ENGINEERING	CUT-OFF WALL STRUCTURE NO. 016-6290	F.A.U. RTE. 1520	SECTION 17-B7203-00-ES	COUNTY COOK	TOTAL SHEETS 1434	SHEET NO. 1152
		CHECKED - KPS	REVISED -			CDOT PROJECT NO. B-7-203			SN 016-6290	
	PLOT SCALE =	DRAWN - RRD	REVISED -		SHEET NO. SJ-1 OF 5 SHEETS	ILLINOIS	FED. AID PROJECT			
	PLOT DATE = 6/26/2020	CHECKED - KPS	REVISED -							

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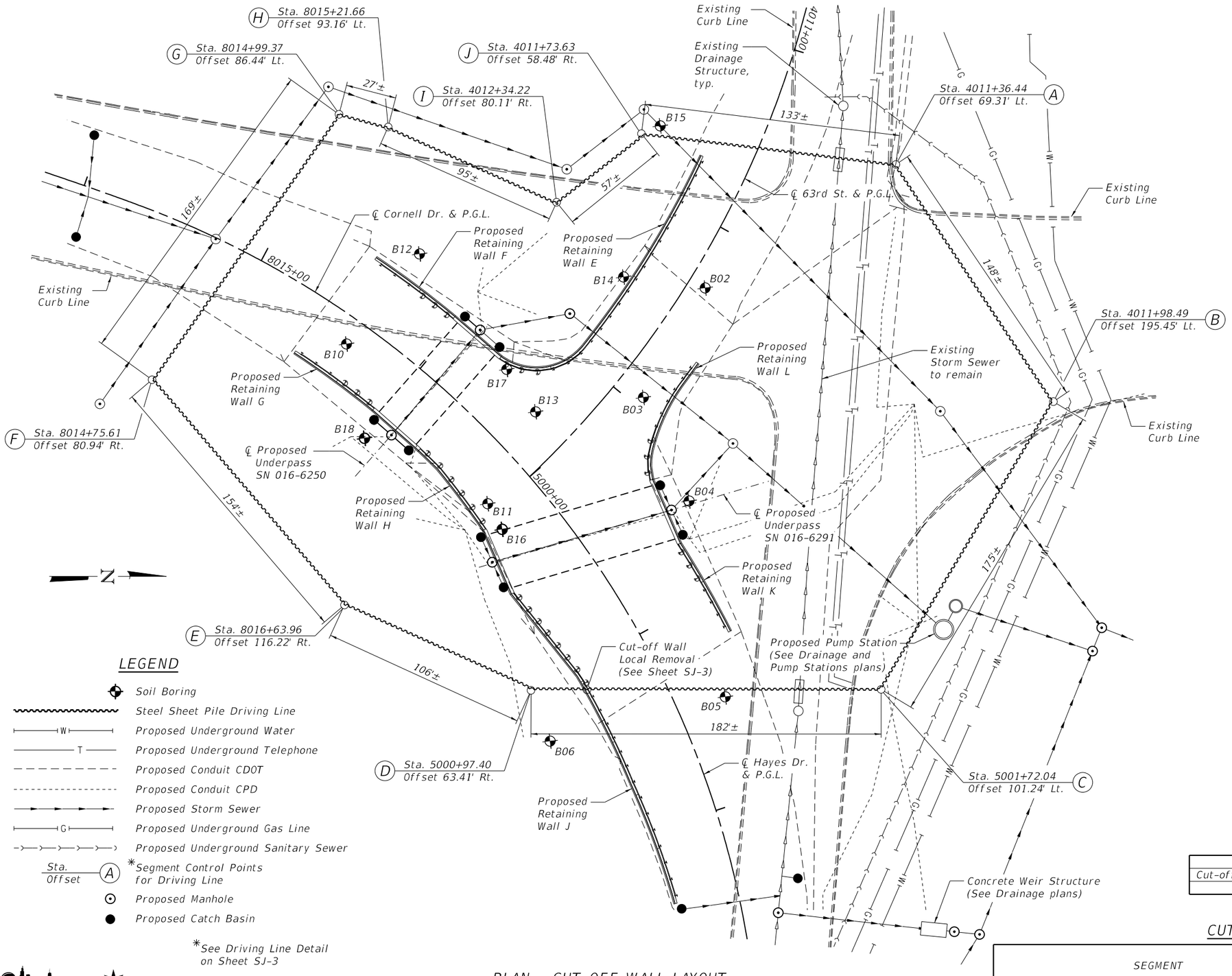

LEGEND

- Soil Boring
- Steel Sheet Pile Driving Line
- Proposed Underground Water
- Proposed Underground Telephone
- Proposed Conduit CDOT
- Proposed Conduit CPD
- Proposed Storm Sewer
- Proposed Underground Gas Line
- Proposed Underground Sanitary Sewer
- Sta. / Offset (A) *Segment Control Points for Driving Line
- Proposed Manhole
- Proposed Catch Basin

*See Driving Line Detail on Sheet SJ-3

PLAN - CUT-OFF WALL LAYOUT

NOTES FOR CUT-OFF WALL:

1. The details and dimensions shown are based on the available existing information. The Contractor must verify all critical dimensions, locations, and elevations before ordering material or proceeding with construction. Should the actual driving conditions of sheet piles vary from plan details, the Contractor must submit revised details to the Engineer for approval.
2. All existing utilities are not shown on this sheet. It is the responsibility of the Contractor to verify all utilities. See Civil, Drainage and Utilities, Pump Stations, Water Main, Traffic Signals, and Electrical plans for more information.
3. The Contractor must field verify all utility locations. Sheet piling locations may need to be adjusted, if necessary, to avoid utility interference in accordance with the Special Provisions and as approved by the Engineer. See Civil, Drainage and Utilities, Pump Stations, Water Main, Traffic Signals, and Electrical plans for more information.
4. Prior to performing any excavation or demolition, the Contractor must provide temporary support for the existing utilities as necessary. Any damage to the existing utilities to remain must be repaired by the Contractor to the satisfaction of the Engineer and at no cost to the Commissioner. See Utility Penetration Detail on Sheet SJ-3 for more information. The Contractor is responsible for all temporary bracing required during construction.
5. The Contractor may encounter obstructions along the sheet pile driving line. See Special Provisions for driving sheet piles in these situations.
6. All metal sheet piling shall conform to the requirements of ASTM A-328 (AASHTO M 202).
7. See Special Provisions for water stop material for the cut-off wall. The Contractor must submit the procedure for applying water stop material and installation of the sheeting for approval.
8. All welding must be performed by certified welders in accordance with the latest specification of the American Welding Society Standard, D1.1. All welding connections must be made with AWS A5.1 or A5.5 E70XX electrodes. All welding must be continuous unless otherwise noted.
9. Stations and offsets are measured from outside face of sheet pile cut-off wall along driving line to either ℄ Cornell Dr. & P.G.L., ℄ Hayes Dr. & P.G.L. or ℄ 63rd St. & P.G.L.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Cut-off Walls	Sq. Ft.	39,249

CUT-OFF WALL SCHEDULE

SEGMENT	TYPE	PILE SECTION	PILE TIP ELEVATION
A-B, B-C, C-D, D-E, E-F, F-G, G-H, H-I, I-J, J-A	CUT-OFF WALL	AZ 14	-27.0

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	PLOT DATE = 6/26/2020	CHECKED - JLS	REVISED -

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

CUT-OFF WALL
STRUCTURES NO. 016-6291 & 016-6250
SHEET NO. SJ-2 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1153
CDOT PROJECT NO. B-7-203		SN 016-6291 & SN 016-6250		
ILLINOIS FED. AID PROJECT				

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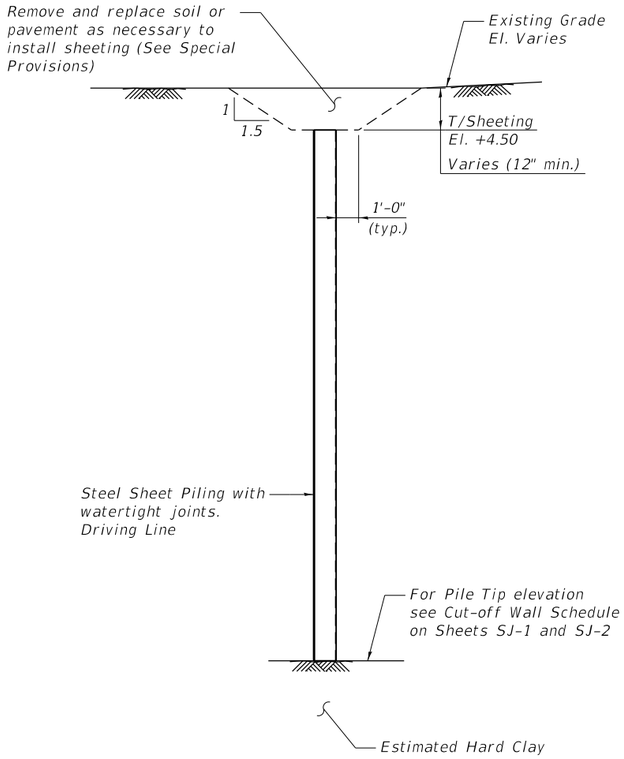
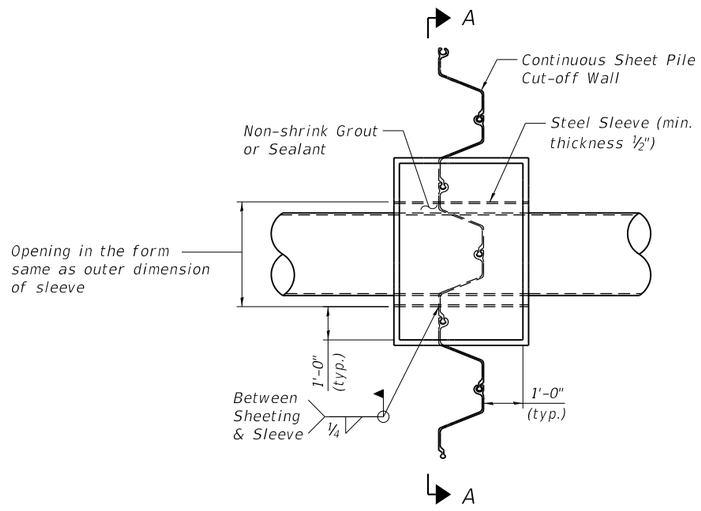
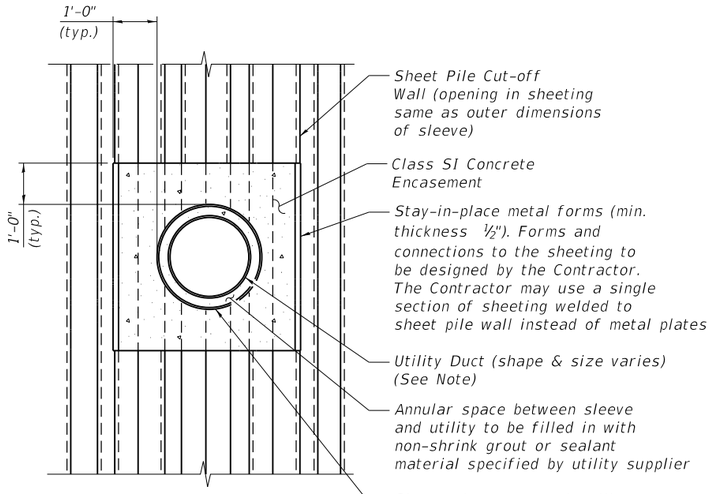


TYPICAL SECTION
(Cut-off Wall)

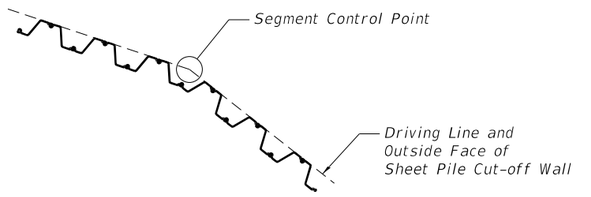


PLAN

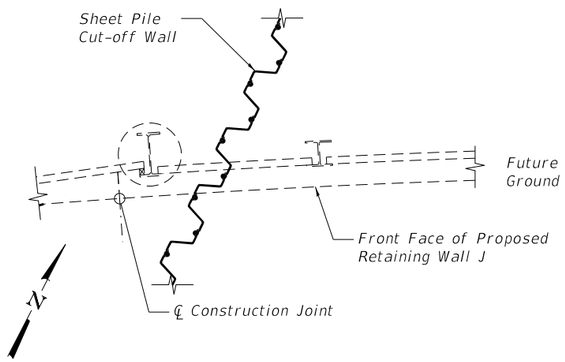


SECTION A-A

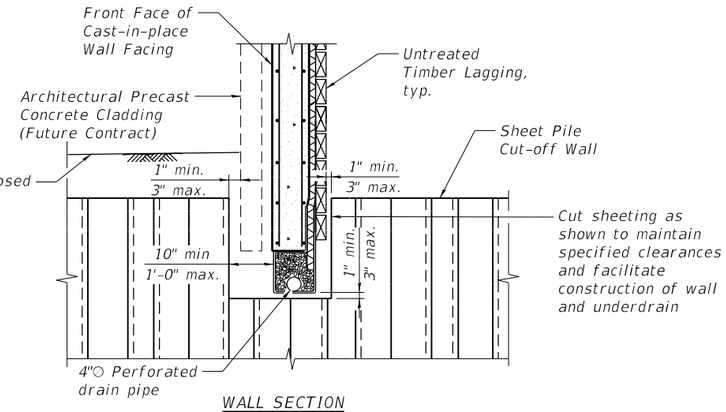
UTILITY PENETRATION DETAIL



DRIVING LINE DETAIL



PLAN
(Wall J shown, others similar)



WALL SECTION

CUT-OFF WALL LOCAL REMOVAL DETAIL AT WALLS A, B, D & J

(See Sheets SH-9, SH-13, and SH-14 for additional information for Wall J, others similar)

NOTE:

See Civil, Drainage and Utilities, Pump Stations, Water Main, Traffic Signals, and Electrical plans for utility penetration locations and additional information.

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DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

CUT-OFF WALL DETAILS
STRUCTURES NO. 016-6290, 016-6291 & 016-6250
SHEET NO. SJ-3 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1520	17-B7203-00-ES	COOK	1434	1154
CDOT PROJECT NO.	B-7-203	SN 016-6290, 6291 & 6250		
ILLINOIS	FED. AID PROJECT			

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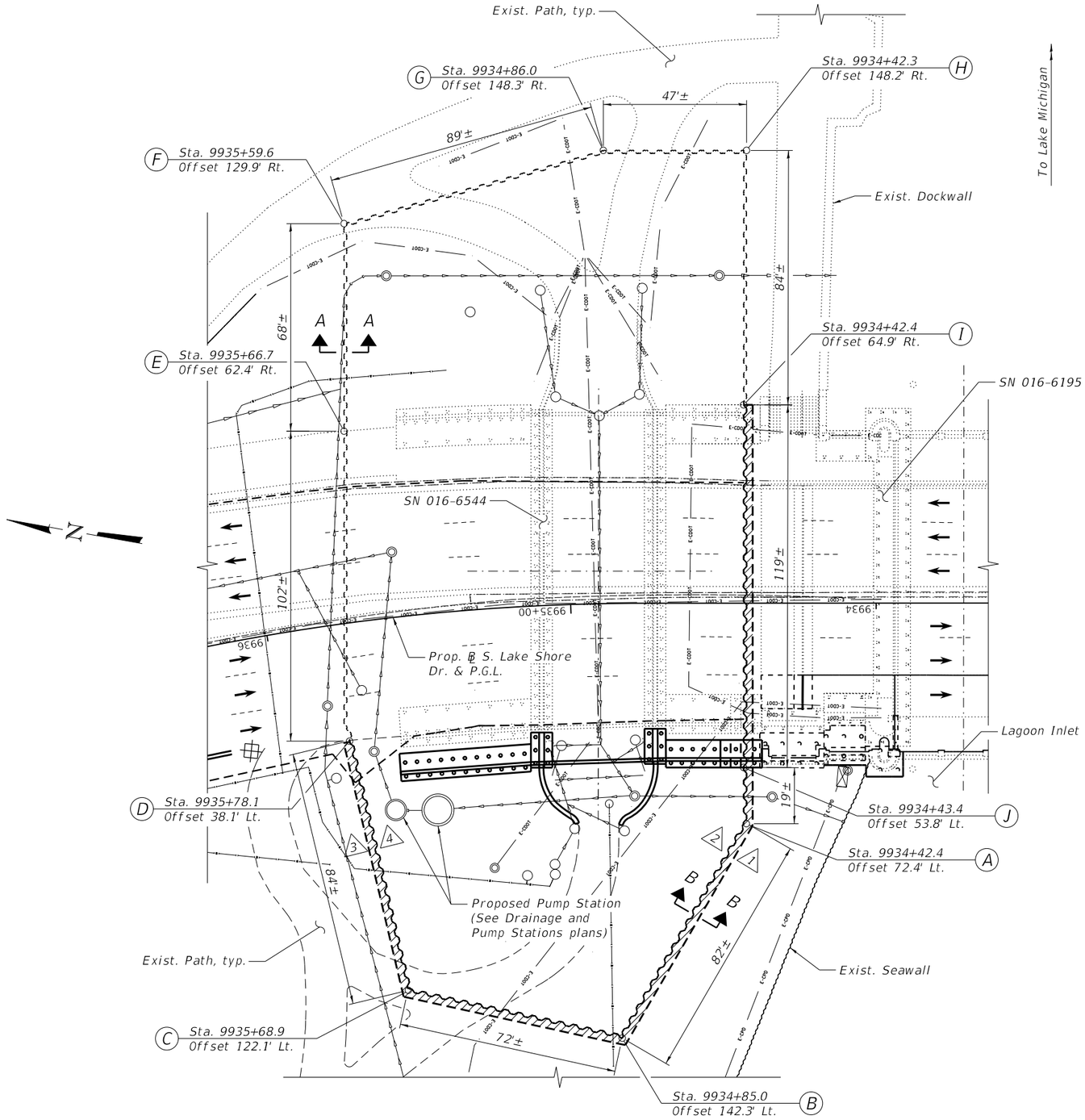

PLAN - EXISTING CUT-OFF WALL LAYOUT

NOTES:

1. The details and dimensions shown are based on the available existing information. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor 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.
2. Elevations shall be verified in the field and may be adjusted as directed by the Engineer.
3. The Contractor must make his/her own investigation to determine the existence, nature and exact location of all utility lines and appurtenances within the limits of the existing cut-off wall. The Contractor must provide all measures and precautions necessary to protect existing and new utilities.
4. See Electrical Plans for lighting details.
5. See Drainage Plans for proposed drainage details.
6. See Civil Plans for proposed contours.
7. For existing cut-off wall plans, see Sheets SCX-44 and SCX-45.
8. For existing and proposed structure plans for SN 016-6544, see SC and SCX Sheets.
9. For existing and proposed structure plans for SN 016-6195, see SD and SDX Sheets.
10. All proposed cut-off wall grouting, including the segment from control point I to J underneath S. Lake Shore Drive, shall be installed from the work zone on the west side of S. Lake Shore Drive and west of the existing retaining walls.
11. See Special Provision for Cut-off Wall Grouting (Special).

BILL OF MATERIAL

	ITEM	UNIT	TOTAL
*	Cut-off Wall Grouting (Special)	L. Sum	1.0

*Estimated cut-off wall surface coverage of 11,844 square feet (For Information Only).

LEGEND

- Existing Sheet Pile Cut-off Wall (no proposed work)
- Proposed Grouting for Existing Sheet Pile Cut-off Wall (See Special Provisions)
- Existing Underground Water
- Existing Underground Storm Sewer
- E-CDOT — Existing Underground Electrical CDOT
- E-CPD — Existing Underground Electrical CPD
- Existing and Proposed Lighting Conduit
- Sta. / Offset (A) — Segment Control Points for Existing Driving Line (For Information Only)
- (1) — Proposed Piezometer Location (4 minimum)

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DEPARTMENT OF TRANSPORATION
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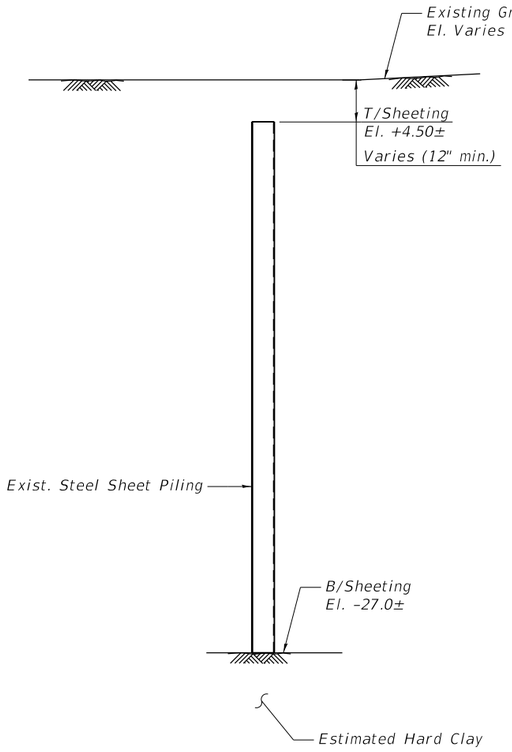
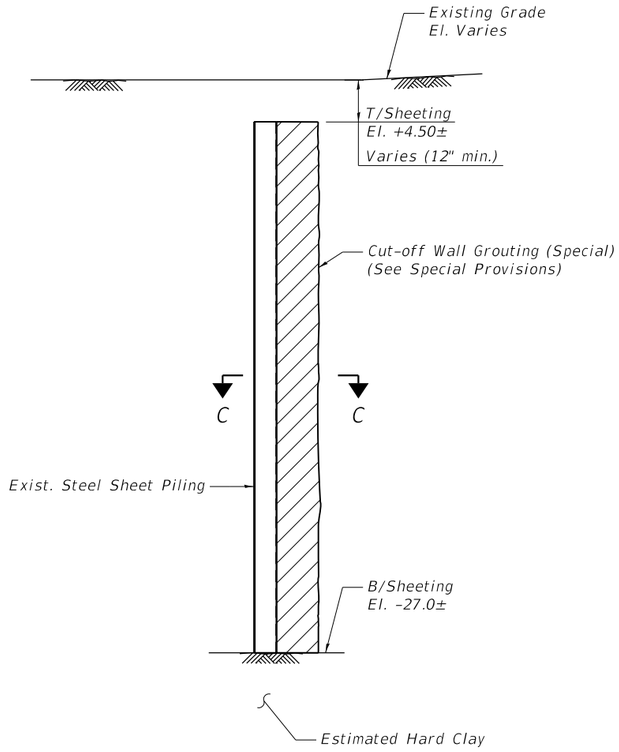
CUT-OFF WALL GROUTING DETAILS (1 OF 2)
STRUCTURE NO. 016-6544
SHEET NO. SJ-4 OF 5 SHEETS

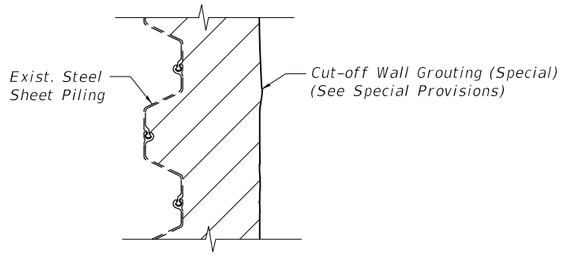
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1155
CDOT PROJECT NO. B-7-203		SN 016-6544		
ILLINOIS	FED. AID PROJECT			



SECTION A-A
(Existing Cut-off Wall)



SECTION B-B
(Existing Cut-off Wall)



SECTION C-C

NOTES:

1. See Civil, Drainage and Utilities, Pump Stations, Water Main, Traffic Signals, and Electrical plans for utility penetration locations and additional information.
2. See Special Provision for Cut-off Wall Grouting (Special).

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CUT-OFF WALL GROUTING DETAILS (2 OF 2)
STRUCTURE NO. 016-6544
SHEET NO. SJ-5 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2873	17-B7203-00-ES	COOK	1434	1156
CDOT PROJECT NO.	B-7-203	SN 016-6544		
ILLINOIS	FED. AID PROJECT			

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