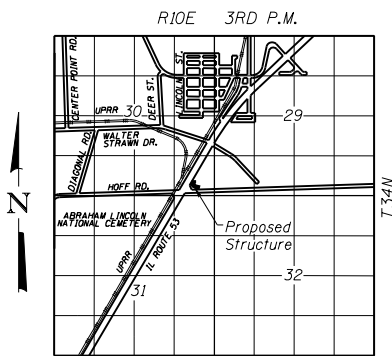


Benchmark: Control Point CP 163-Mag Nail North of Hoff Road on Concrete Island and East of IL Route 53-Sta. 57+70.50, 30.08' Lt. Elev. 633.745

Existing Structures: None

Traffic Control: Hoff Road will be closed to traffic during retaining wall construction.  
Traffic on IL Route 53 to be maintained during retaining wall construction.

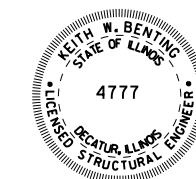


LOCATION SKETCH

**DESIGN SPECIFICATIONS**  
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

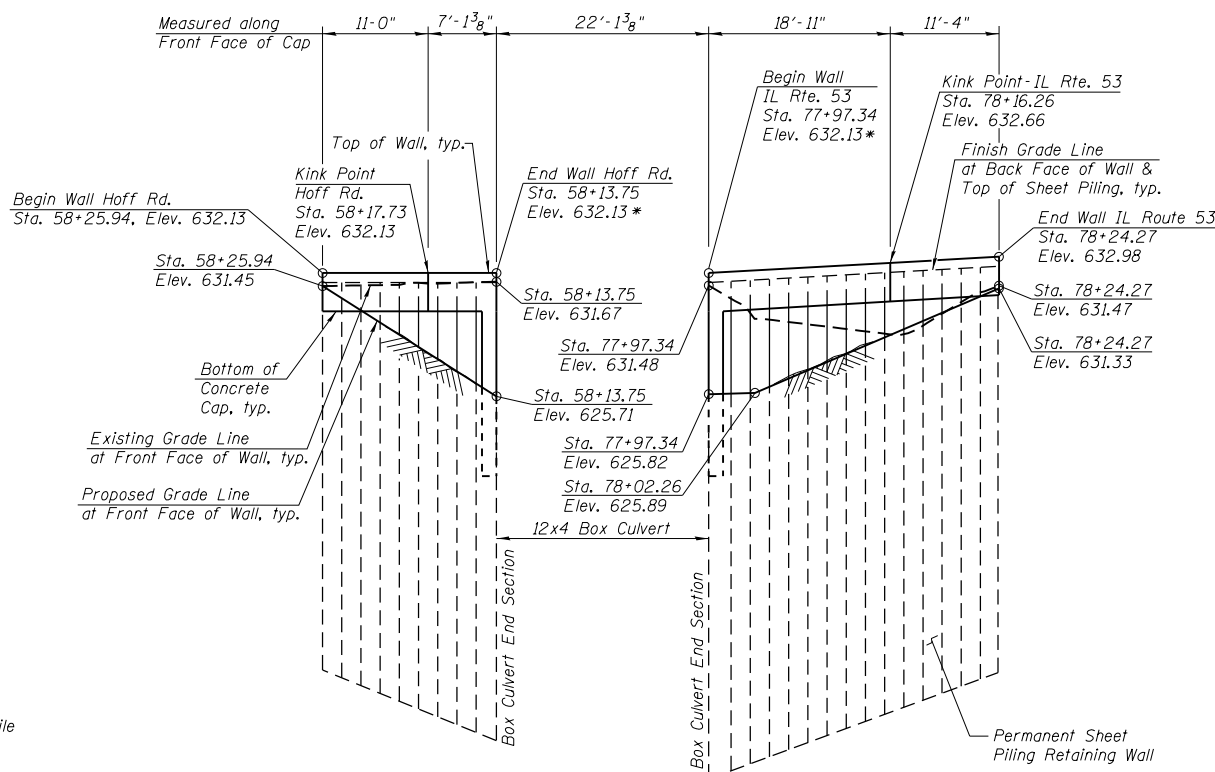
**DESIGN STRESSES**  
FIELD UNITS

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (M270 Grade 50 Sheet Piling)



Keith W. Bunting  
Date: 3/15/2016

Keith W. Bunting  
Licensed Structural Engineer  
State of Illinois No. 081-004777  
License Expires 11/30/2016



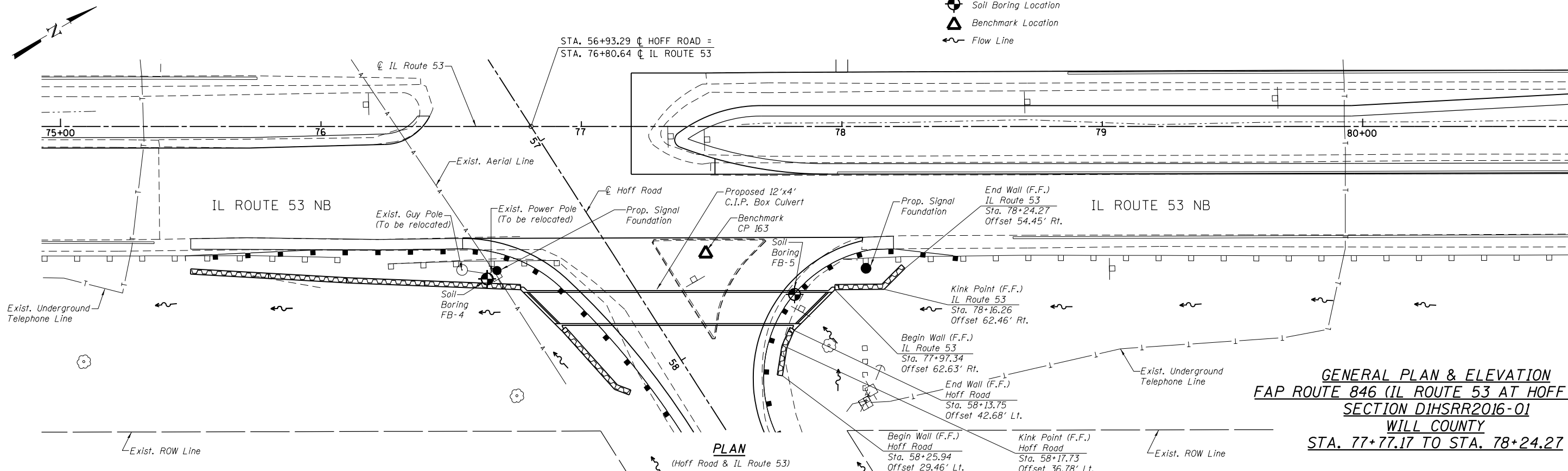
**ELEVATION**  
(Looking West)

- Notes:
- Wall location stations and offsets are referenced to the front face of cap.
  - Due to the presence of very stiff to hard clay, sheet pile with a minimum thickness of 0.4 inch is recommended to alleviate any damage to the pile section during driving.

\* Top of retaining wall cap matches culvert headwall elevation.

**LEGEND**

- F.F.=Front Face
- B.F.=Back Face
- PCBC = Precast Concrete Box Culvert
- Soil Boring Location
- Benchmark Location
- Flow Line



**GENERAL PLAN & ELEVATION**  
FAP ROUTE 846 (IL ROUTE 53 AT HOFF ROAD)  
SECTION DIHSRR2016-01  
WILL COUNTY  
STA. 77+77.17 TO STA. 78+24.27

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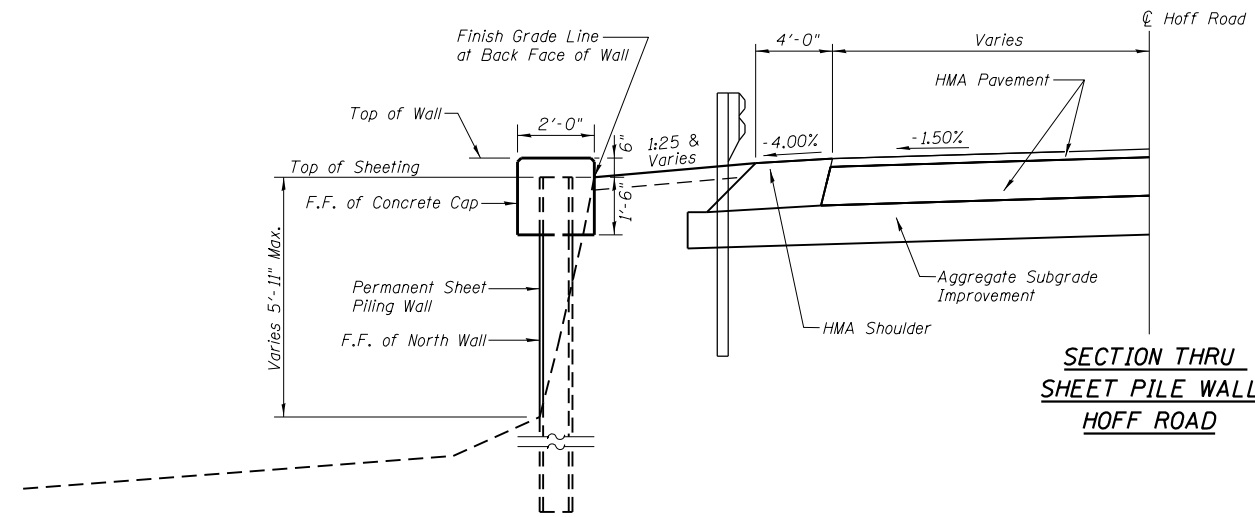


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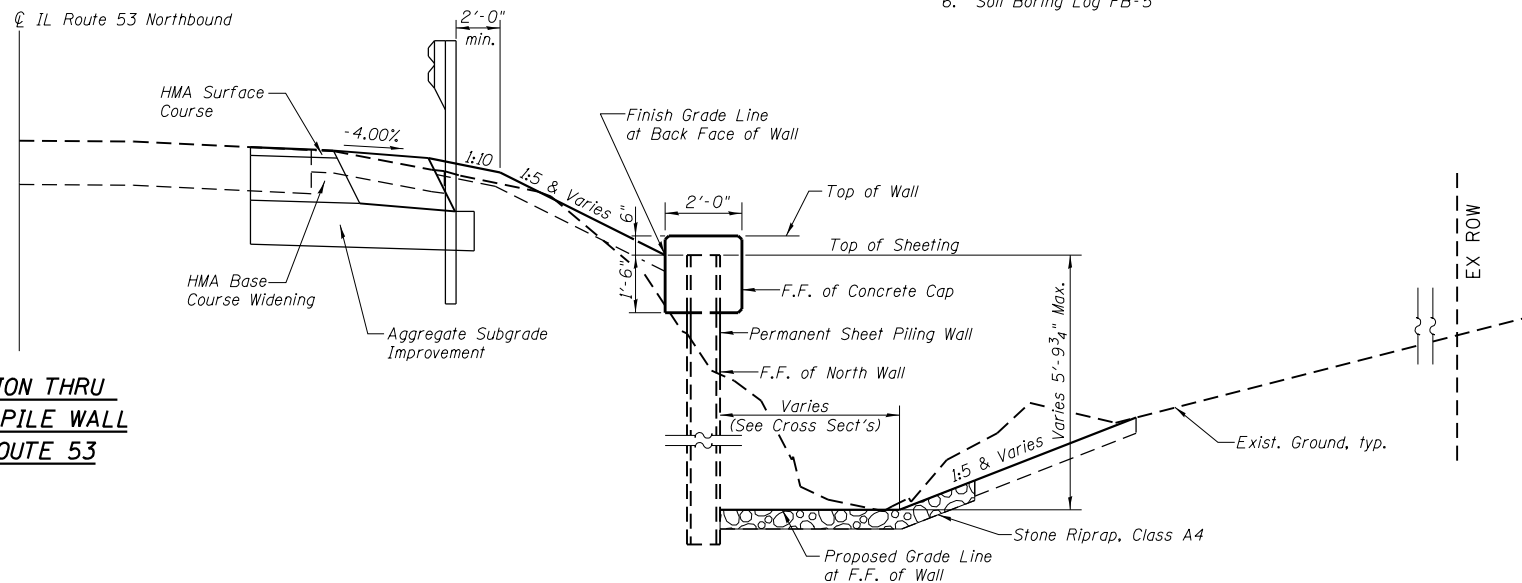
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
NORTH WALL  
SHEET 1 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	101
CONTRACT NO. 62B32			ILLINOIS FED. AID PROJECT	



**SECTION THRU  
SHEET PILE WALL  
HOFF ROAD**



**SECTION THRU  
SHEET PILE WALL  
IL ROUTE 53**

**TOTAL BILL OF MATERIAL - NORTH RETAINING WALL**

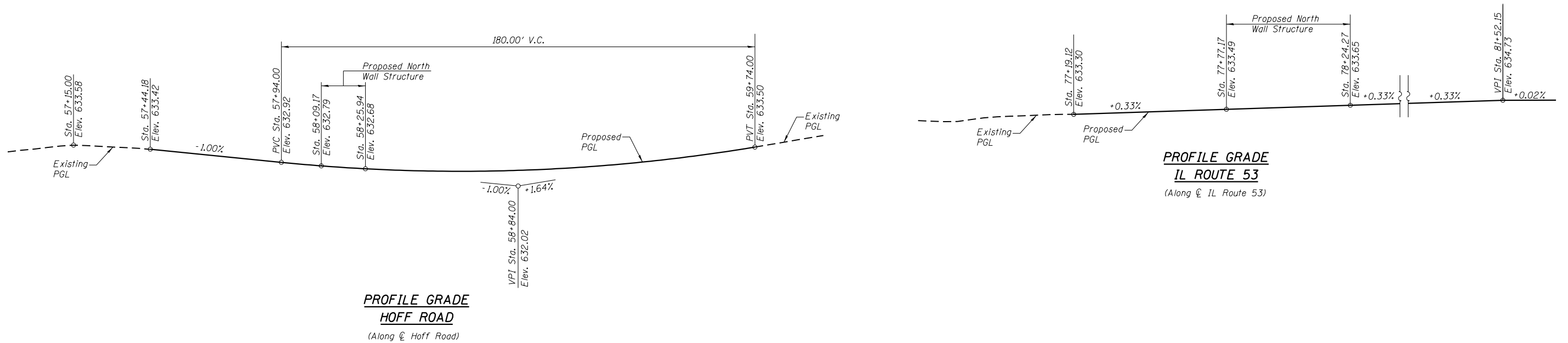
ITEM	UNIT	TOTAL
Concrete Structures	Cu. Yd.	9.1
Stud Shear Connectors	Each	94
Reinforcement Bars, Epoxy Coated	Pound	840
Permanent Sheet Piling	Sq. Ft.	886

**GENERAL NOTES**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete cap shall be constructed after backfill is in place.
3. All exposed corners shall have a 1" chamfer.

**INDEX OF SHEETS**

1. General Plan & Elevation
2. General Details & Bill of Material
3. Detailed Plan and Elevation 1
4. Detailed Plan and Elevation 2
5. Sheet Pile Wall Details
6. Soil Boring Log FB-5



**PROFILE GRADE  
HOFF ROAD**  
(Along  $\text{\textcircled{C}}$  Hoff Road)

**PROFILE GRADE  
IL ROUTE 53**  
(Along  $\text{\textcircled{C}}$  IL Route 53)

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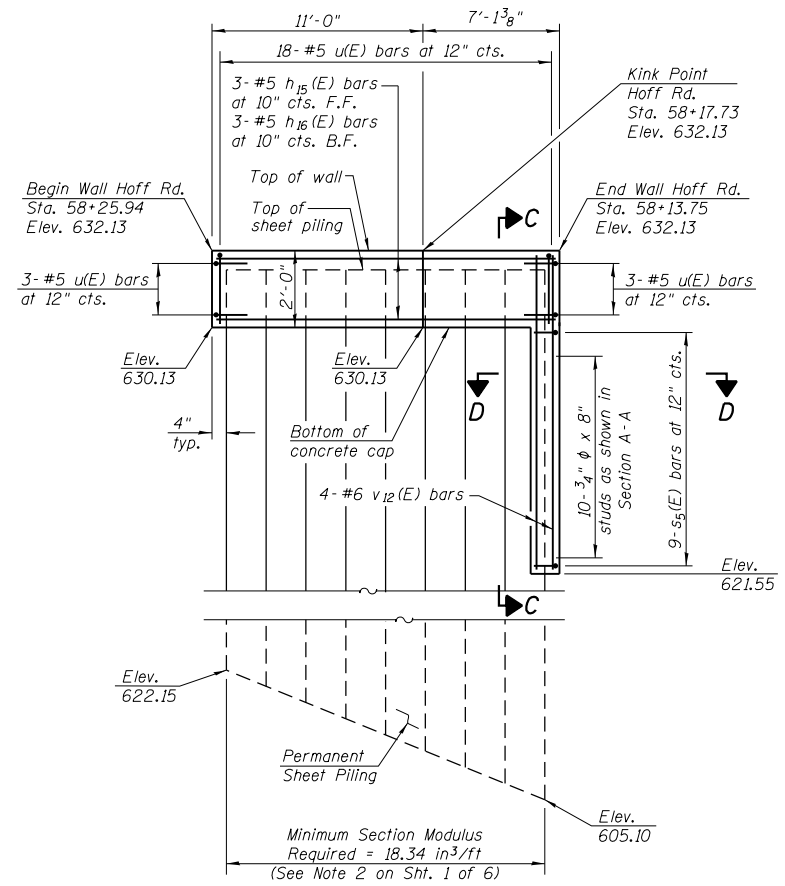
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

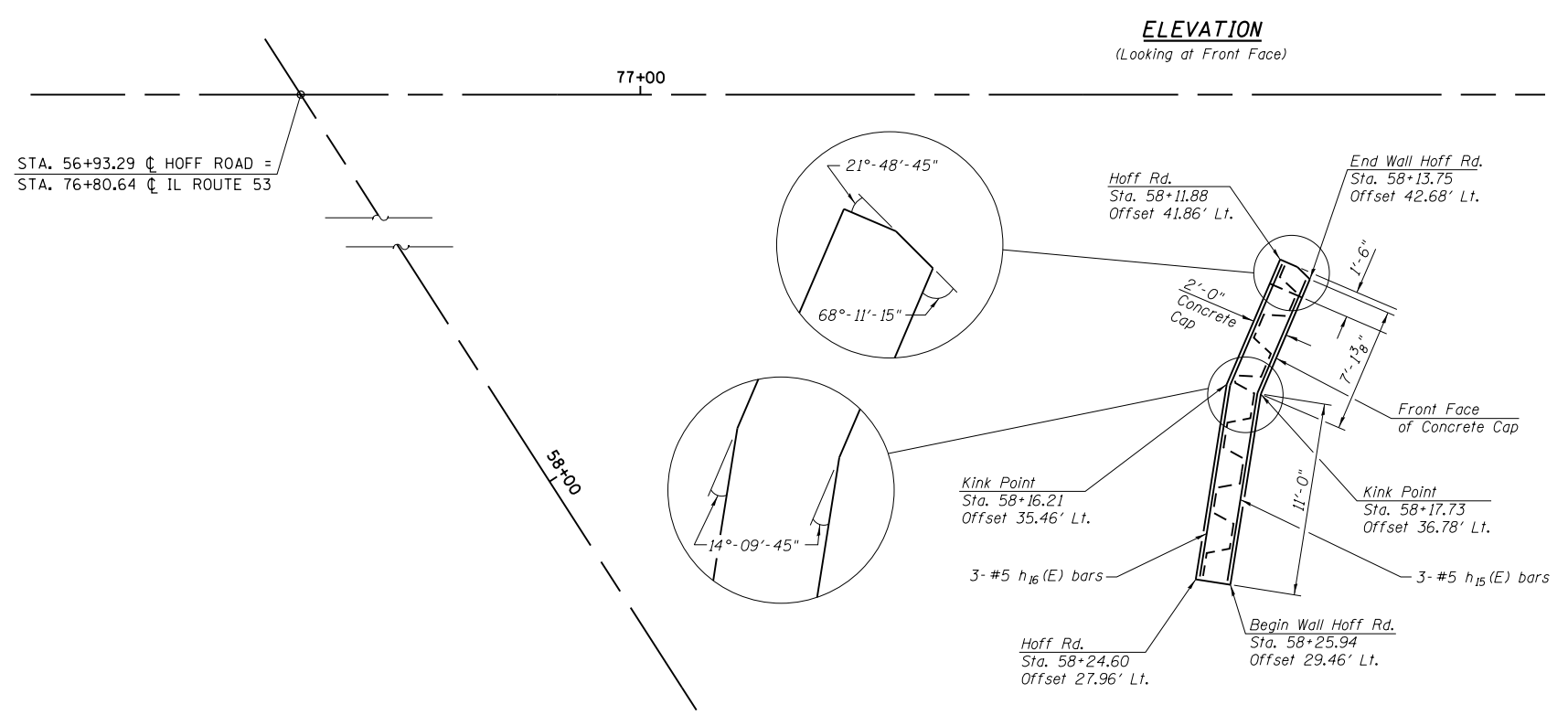
**GENERAL DETAILS & BILL OF MATERIAL  
NORTH WALL**

SHEET 2 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	102
CONTRACT NO. 62B32			ILLINOIS FED. AID PROJECT	



Note:  
For Sections C-C and  
D-D, see sheet 5 of 6.



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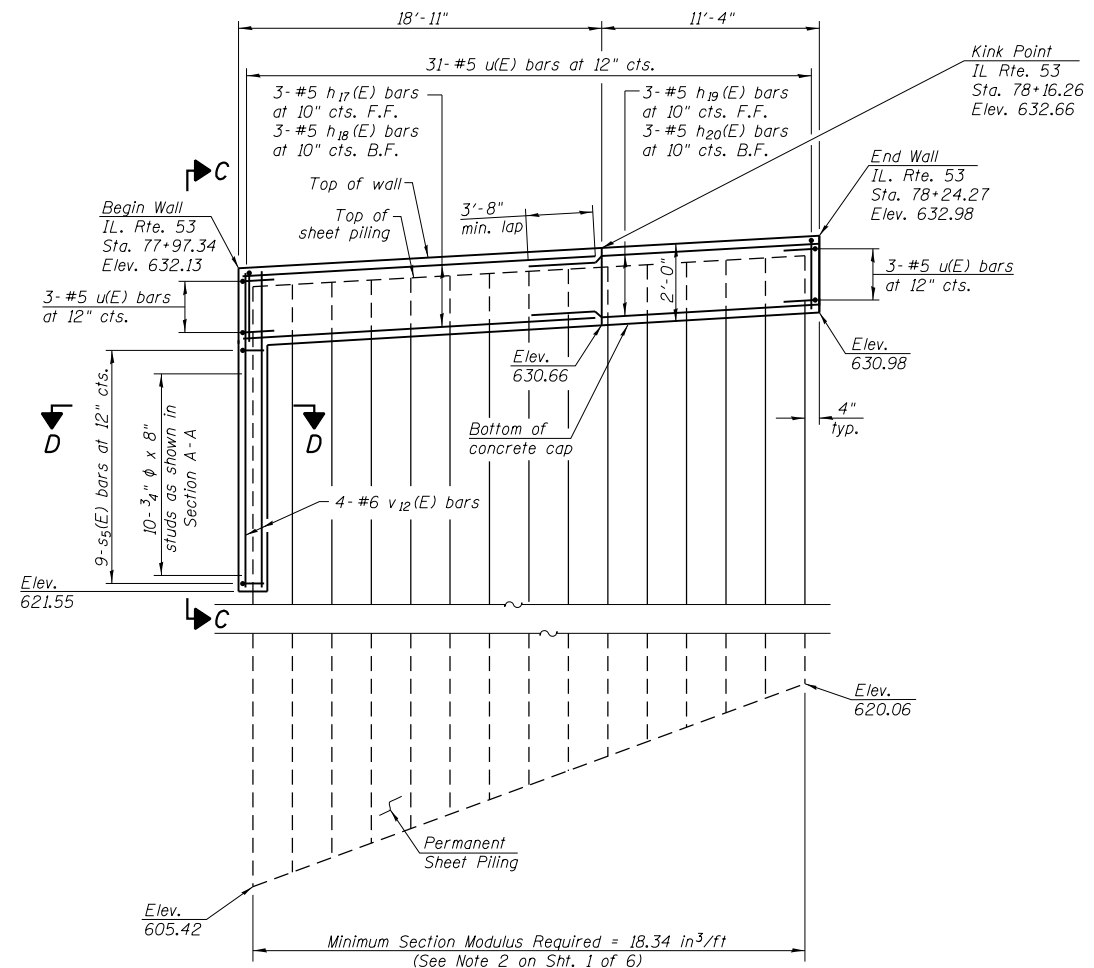
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PLOT DATE = 3/21/2016	CHECKED - KWB	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETAILED PLAN AND ELEVATION 1  
NORTH WALL**

SHEET 3 OF 6 SHEETS

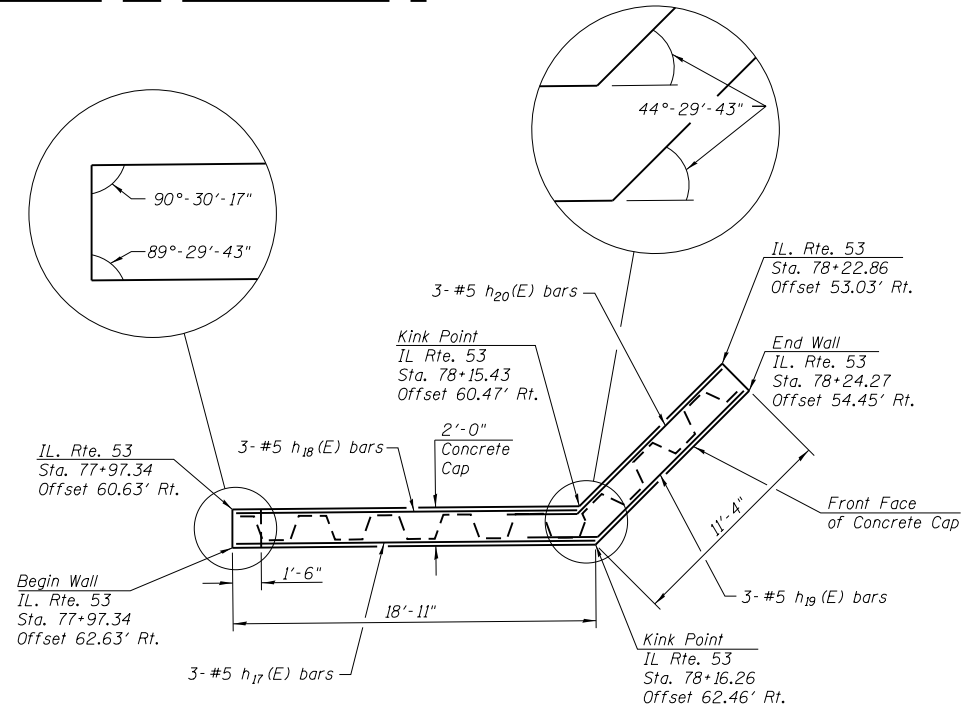
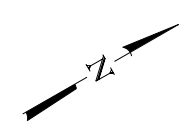
F.A.P. RTE. 846	SECTION DIHSRR2016-01	COUNTY WILL	TOTAL SHEETS 146	SHEET NO. 103
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				



Note:  
For Sections C-C and  
D-D, see sheet 5 of 6.



STA. 56+93.29 @ HOFF ROAD =  
STA. 76+80.64 @ IL ROUTE 53



**PLAN**

(Cap corners at right angles except as detailed above)



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	CHECKED - GAC	REVISED -
PLOT SCALE =	DRAWN - MJP	REVISED -
PLOT DATE = 3/21/2016	CHECKED - KWB	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILED PLAN AND ELEVATION 2  
NORTH WALL

SHEET 4 OF 6 SHEETS

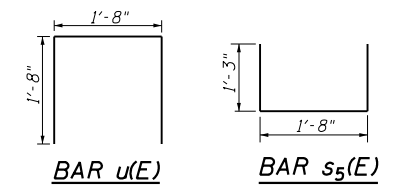
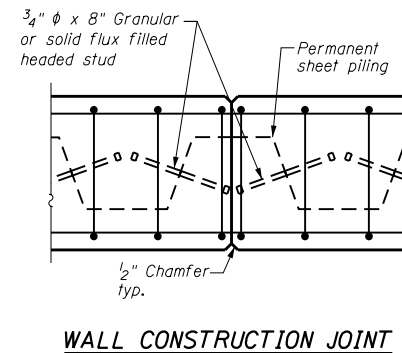
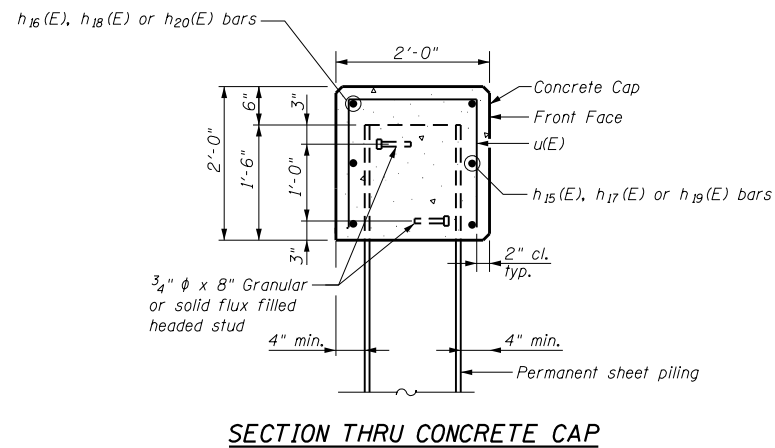
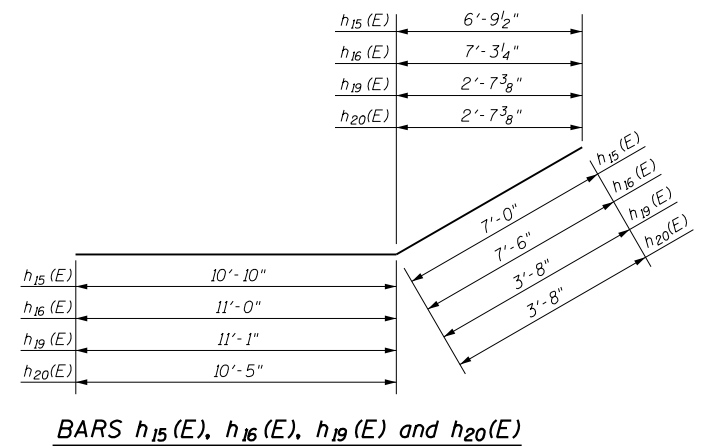
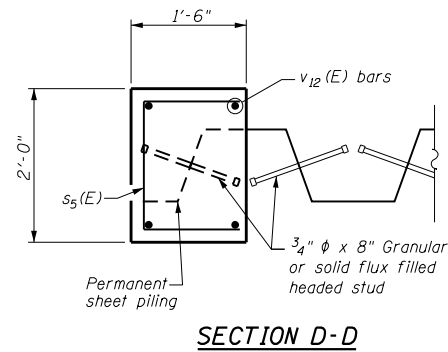
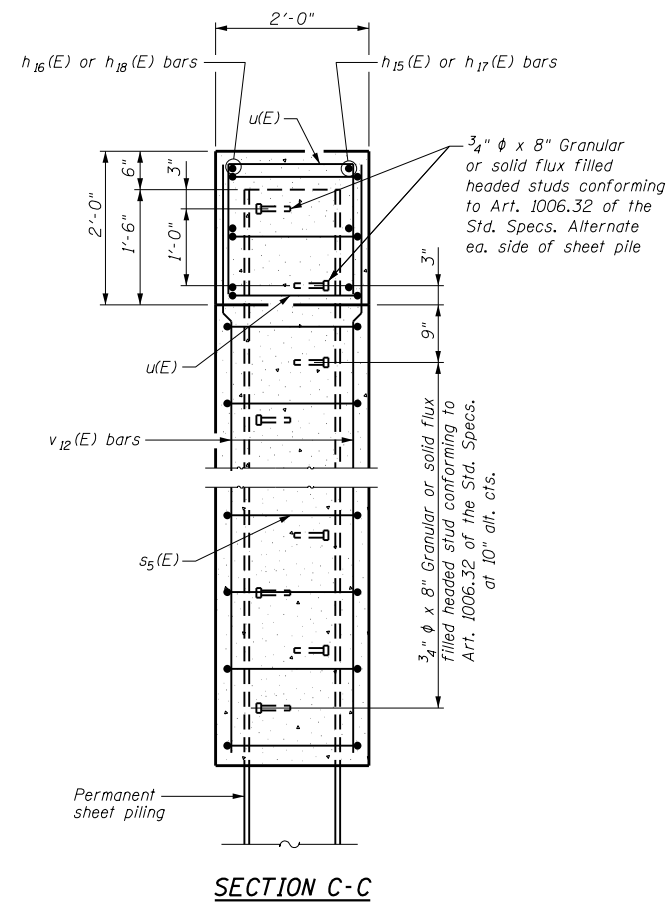
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	104
CONTRACT NO. 62B32				

ILLINOIS FED. AID PROJECT

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**NORTH WALL  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$h_{15}(E)$	3	#5	17'-10"	
$h_{16}(E)$	3	#5	18'-6"	
$h_{17}(E)$	3	#5	18'-9"	
$h_{18}(E)$	3	#5	17'-9"	
$h_{19}(E)$	3	#5	14'-9"	
$h_{20}(E)$	3	#5	14'-1"	
$s_5(E)$	18	#5	4'-2"	
$u(E)$	61	#5	5'-0"	
$v_{12}(E)$	8	#6	10'-3"	
Concrete Structures				Cu. Yd. 9.1
Stud Shear Connectors				Each 94
Reinforcement Bars, Epoxy Coated				Pound 840
Permanent Sheet Piling				Sq. Ft. 886



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USER NAME = drew.brout	DESIGNED - KWB	REVISED -
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	CHECKED - KWB	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SHEET PILE WALL DETAILS  
NORTH WALL**

SHEET 5 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	105
CONTRACT NO. 62B32				

ILLINOIS FED. AID PROJECT

ROUTE IL Rte. 53 & Hoff Rd. DESCRIPTION High Speed Rail Chicago to Quad Cities LOGGED BY JAR  
 SECTION Mile Post 46.64 LOCATION Northing 1721572.1243 Easting 1043903.3096  
 COUNTY Will DRILLING METHOD \_\_\_\_\_ HSA \_\_\_\_\_ HAMMER TYPE AUTO

STRUCT. NO. NA SURFACE WATER ELEV. NA ft  
 Station NA STREAM BED ELEV. NA ft  
 BORING NO. FB-5 GROUNDWATER ELEV.: \_\_\_\_\_  
 Station 78+10 First Encounter 626.2 ft  
 Offset \_\_\_\_\_ Upon Completion None ft  
 Ground Surface Elev. 632.68 ft After NA Hrs. NA ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (6")	UCS (tsf)	MOIST (%)	ORGANIC (%)	NOTES
4						Gray, Moist FILL: Crushed aggregate
5		3.0	16			
6		P				Black and Gray, Moist FILL: CLAY
4						
3		2.0	17			
4		P				
2						Stiff Dark Gray to Brown, Very Moist CLAY (CL)
1		1.0	30			
2		P				
1						
1		1.5	15	99.3		
2		P				
3						Very Stiff to Hard Brown and Gray, Very Moist SILTY CLAY (CL/ML), trace gravel
5		2.0	20			
5		P				
4						
6		5.0	30	116.3		
8		B				
4						
6		4.0	19			
7		P				
4						
7		3.1	17			
7		B				

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)

ROUTE IL Rte. 53 & Hoff Rd. DESCRIPTION High Speed Rail Chicago to Quad Cities LOGGED BY JAR  
 SECTION Mile Post 46.64 LOCATION Northing 1721572.1243 Easting 1043903.3096  
 COUNTY Will DRILLING METHOD \_\_\_\_\_ HSA \_\_\_\_\_ HAMMER TYPE AUTO

STRUCT. NO. NA SURFACE WATER ELEV. NA ft  
 Station NA STREAM BED ELEV. NA ft  
 BORING NO. FB-5 GROUNDWATER ELEV.: \_\_\_\_\_  
 Station 78+10 First Encounter 626.2 ft  
 Offset \_\_\_\_\_ Upon Completion None ft  
 Ground Surface Elev. 632.68 ft After NA Hrs. NA ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (6")	UCS (tsf)	MOIST (%)	ORGANIC (%)	NOTES
3						Very Stiff to Hard Gray, Moist SILTY CLAY (CL/ML), trace gravel (continued)
6		2.5	16			
8		B				
3						
5		2.5	15	119.1		
8		B				
3						
4		2.5	17			
5		B				
4						
6		4.2	16			
9		B				
5						
6		4.2	15			
11		B				
4						
6		3.1	24			
8		B				

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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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

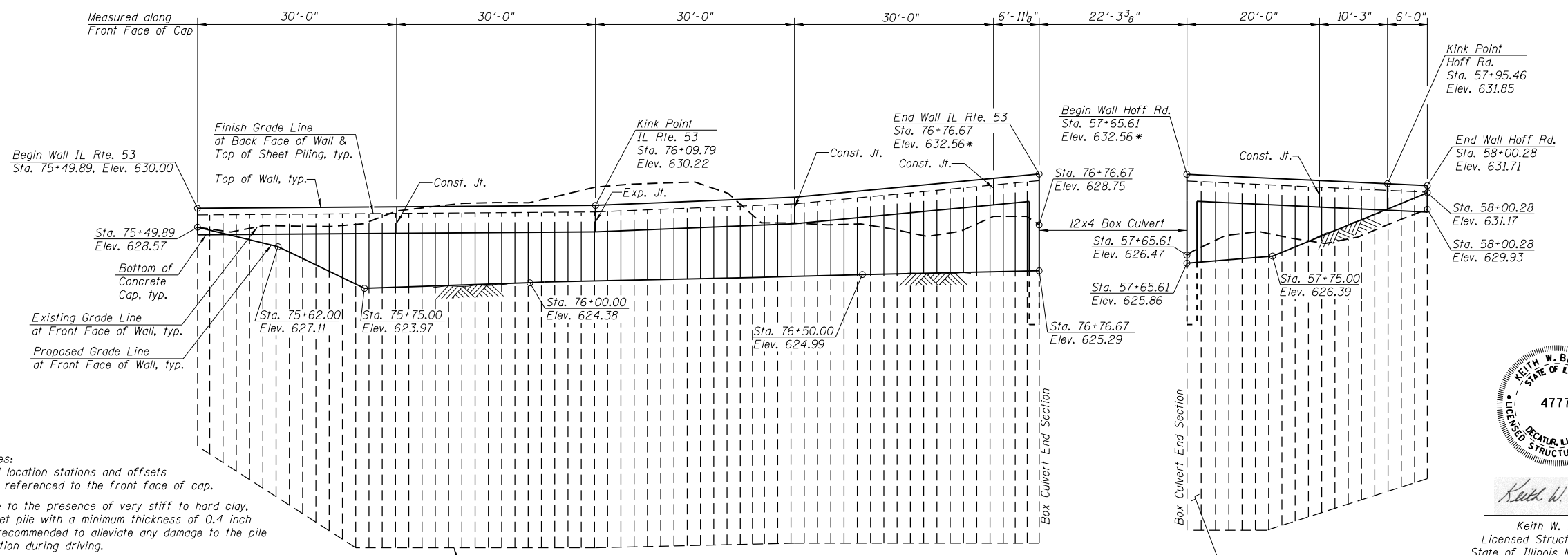
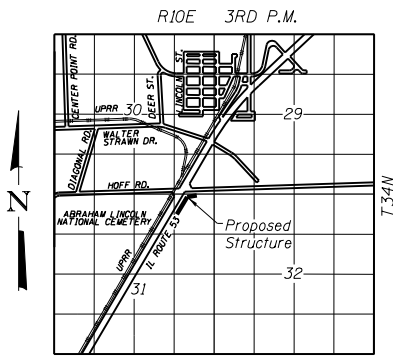
SOIL BORING LOG FB-5  
 NORTH WALL  
 SHEET 6 OF 6 SHEETS

F.A.P. RTE. 846	SECTION DIHSRR2016-01	COUNTY WILL	TOTAL SHEETS 146	SHEET NO. 106
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				

Benchmark: Control Point CP 163-Mag Nail North of Hoff Road on Concrete Island and East of IL Route 53- Sta. 57+70.50, 30.08' Lt. Elev. 633.745

Existing Structures: Timber retaining wall to be removed.  
Sta. 75+74, 57' Rt. to Sta. 76+00, 62' Rt. No Salvage.

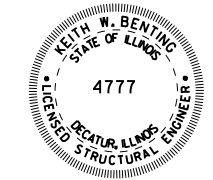
Traffic Control: Hoff Road will be closed to traffic during retaining wall construction.  
Traffic on IL Route 53 to be maintained during retaining wall construction.



LOCATION SKETCH

**DESIGN SPECIFICATIONS**  
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

**DESIGN STRESSES**  
**FIELD UNITS**  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (M270 Grade 50 Sheet Piling)



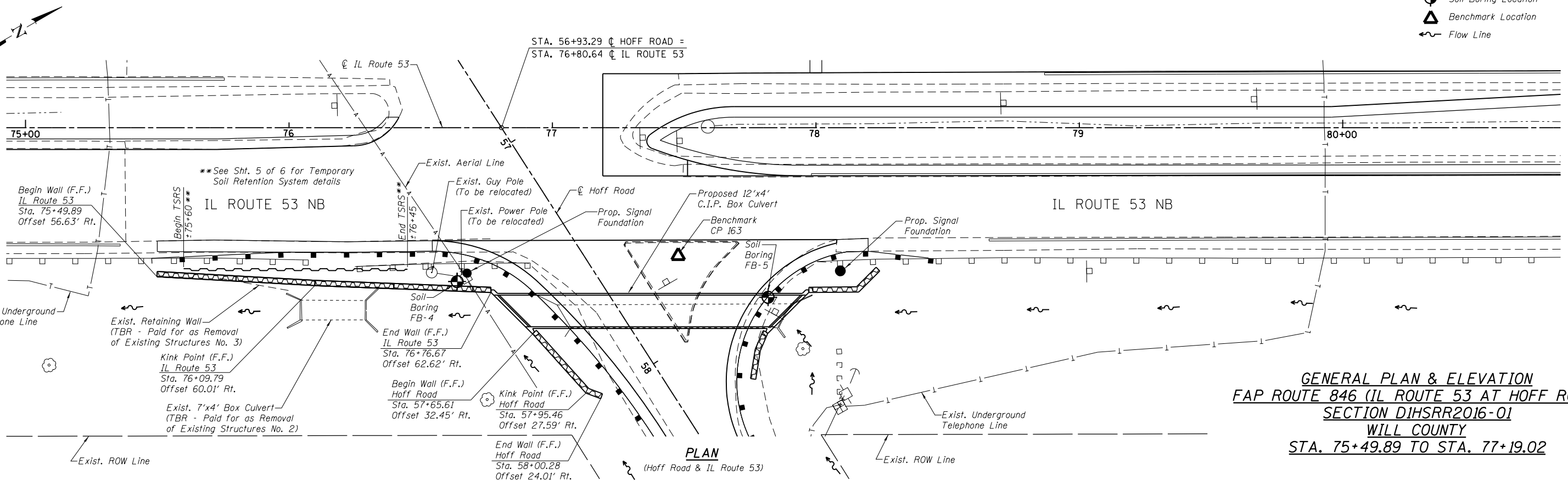
Keith W. Benting  
Licensed Structural Engineer  
State of Illinois No. 081-004777  
License Expires 11/30/2016

Date: 3/15/2016

**LEGEND**

- F.F. = Front Face
- B.F. = Back Face
- PCBC = Precast Concrete Box Culvert
- ⊙ = Soil Boring Location
- △ = Benchmark Location
- ↔ = Flow Line

- Notes:
- Wall location stations and offsets are referenced to the front face of cap.
  - Due to the presence of very stiff to hard clay, sheet pile with a minimum thickness of 0.4 inch is recommended to alleviate any damage to the pile section during driving.
- \* Top of retaining wall cap matches culvert headwall elevation.



**GENERAL PLAN & ELEVATION**  
**FAP ROUTE 846 (IL ROUTE 53 AT HOFF ROAD)**  
**SECTION DIHSRR2016-01**  
**WILL COUNTY**  
**STA. 75+49.89 TO STA. 77+19.02**

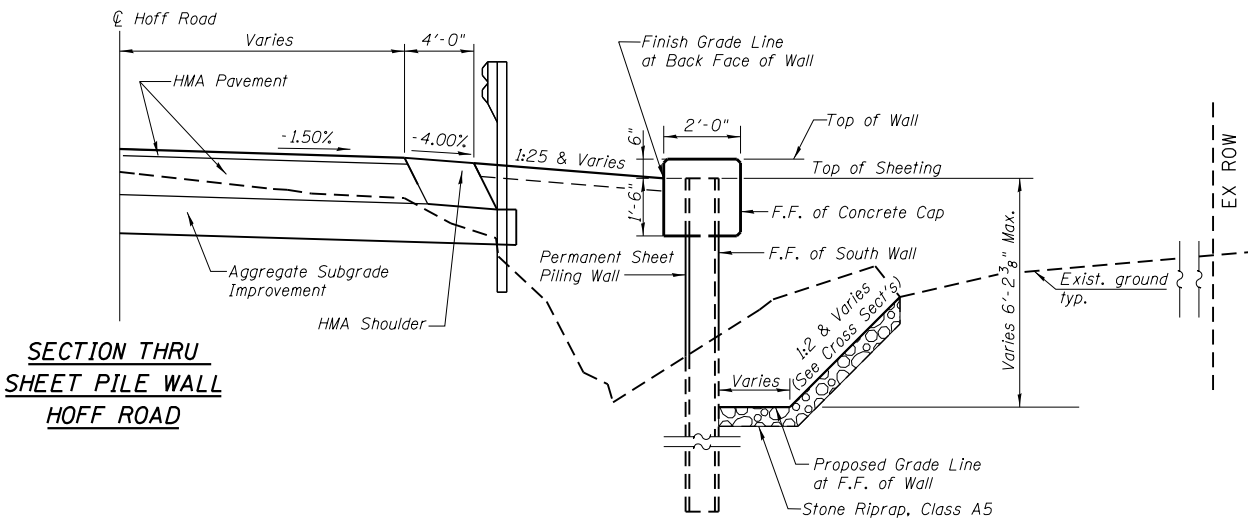


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PLOT DATE = 3/21/2016	DRAWN - MJP	REVISD -
	CHECKED - KWB	REVISD -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
SOUTH WALL  
SHEET 1 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	107
				CONTRACT NO. 62B32
ILLINOIS FED. AID PROJECT				



SECTION THRU  
SHEET PILE WALL  
HOFF ROAD

**TOTAL BILL OF MATERIAL - SOUTH RETAINING WALL**

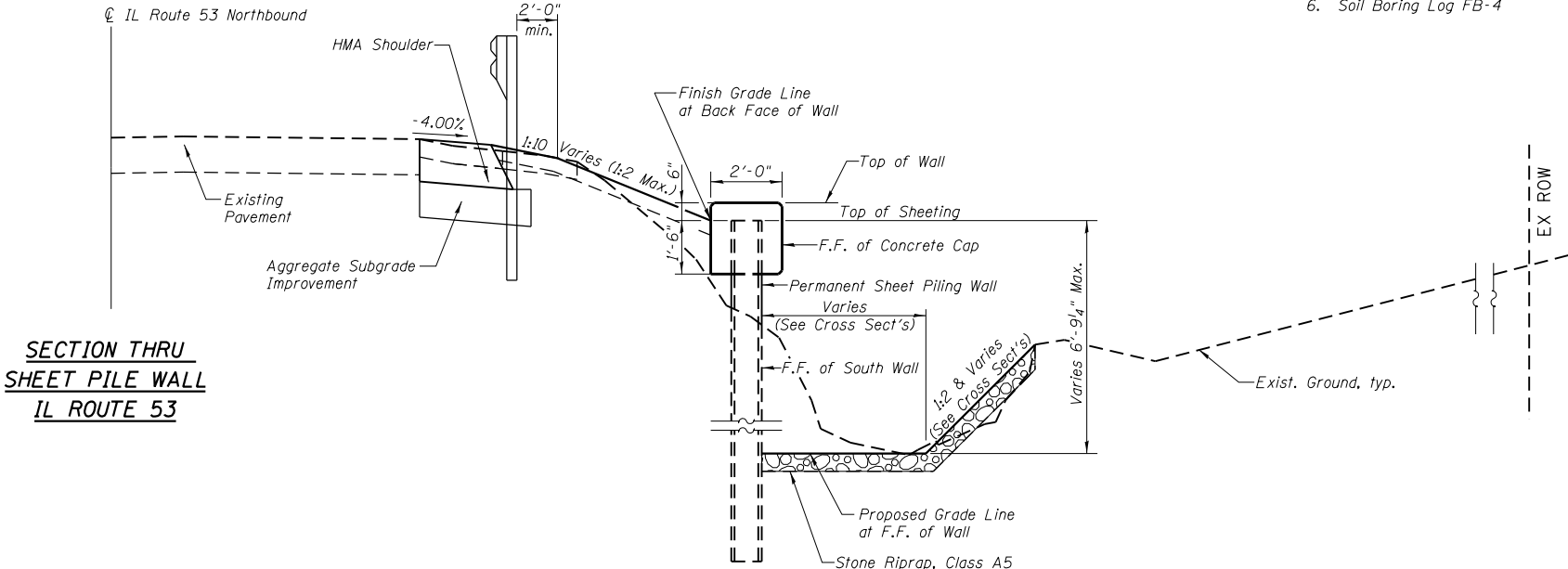
ITEM	UNIT	TOTAL
Removal of Existing Structures No. 2	Each	1
Removal of Existing Structures No. 3	Each	1
Concrete Structures	Cu. Yd.	26.3
Stud Shear Connectors	Each	250
Reinforcement Bars, Epoxy Coated	Pound	2260
Permanent Sheet Piling	Sq. Ft.	3930
Temporary Soil Retention System	Sq. Ft.	444

**GENERAL NOTES**

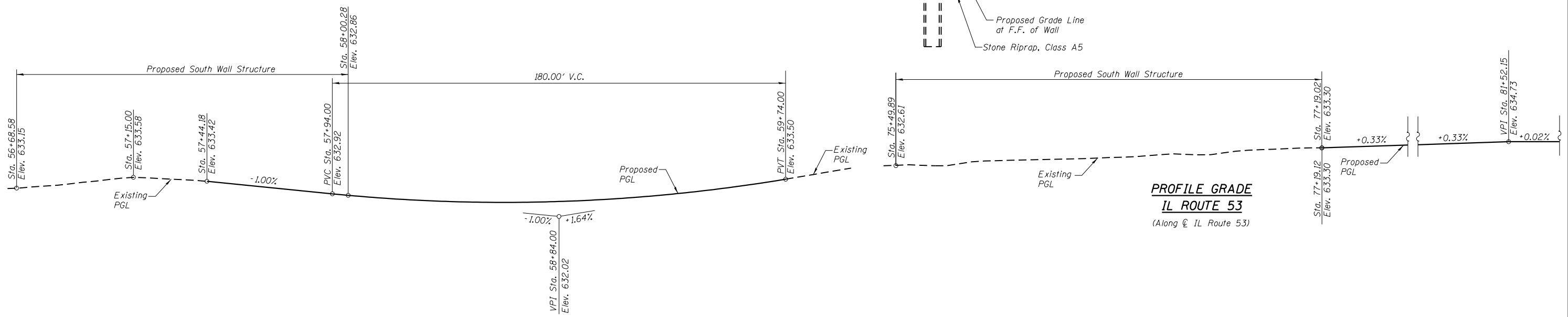
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete cap shall be constructed after backfill is in place.
3. All exposed corners shall have a 1" chamfer.

**INDEX OF SHEETS**

1. General Plan & Elevation
2. General Details & Bill of Material
3. Detailed Plan and Elevation 1
4. Detailed Plan and Elevation 2
5. Sheet Pile Wall Details
6. Soil Boring Log FB-4



SECTION THRU  
SHEET PILE WALL  
IL ROUTE 53



PROFILE GRADE  
HOFF ROAD  
(Along C Hoff Road)

PROFILE GRADE  
IL ROUTE 53  
(Along C IL Route 53)

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

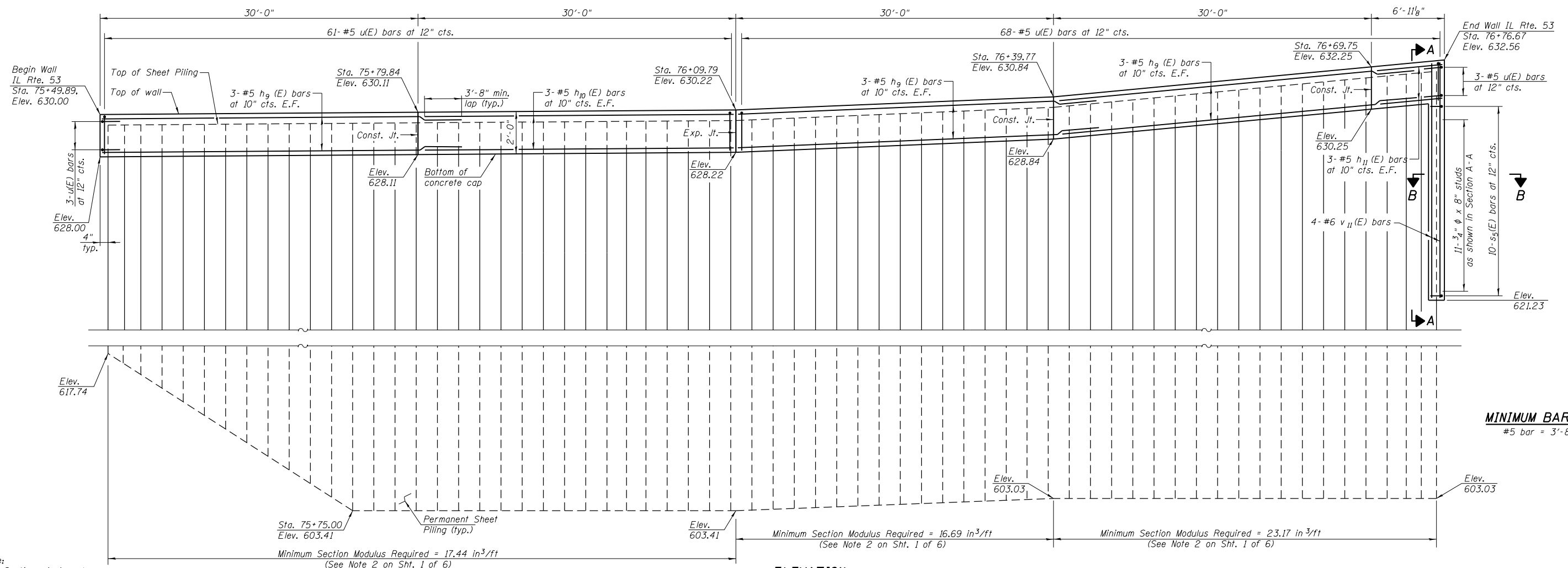
GENERAL DETAILS & BILL OF MATERIAL  
SOUTH WALL

SHEET 2 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	108
CONTRACT NO. 62B32				

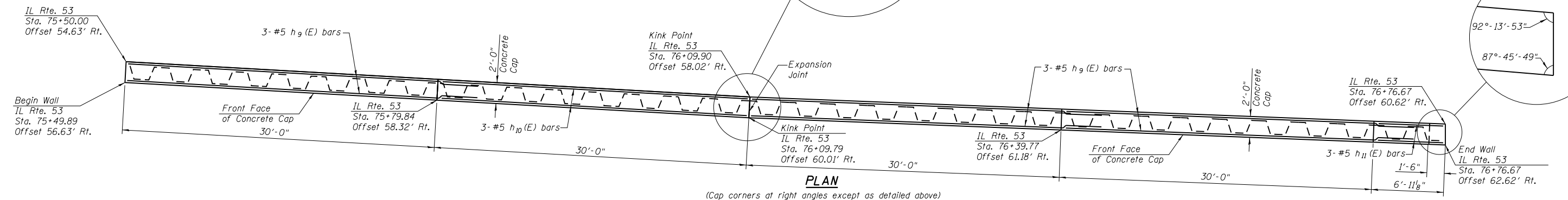
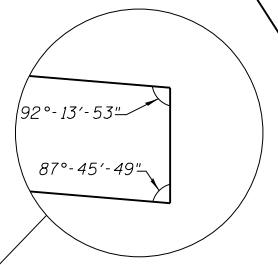
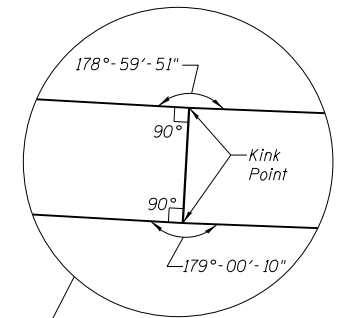
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Note:  
For Sections A-A and  
B-B, see sheet 5 of 6.

**ELEVATION**  
(Looking at Front Face)



**PLAN**



USER NAME = drew.brouk	DESIGNED - KWB	REVISED -
PLOT SCALE =	CHECKED - GAC	REVISED -
PLOT DATE = 3/21/2016	DRAWN - MJP	REVISED -
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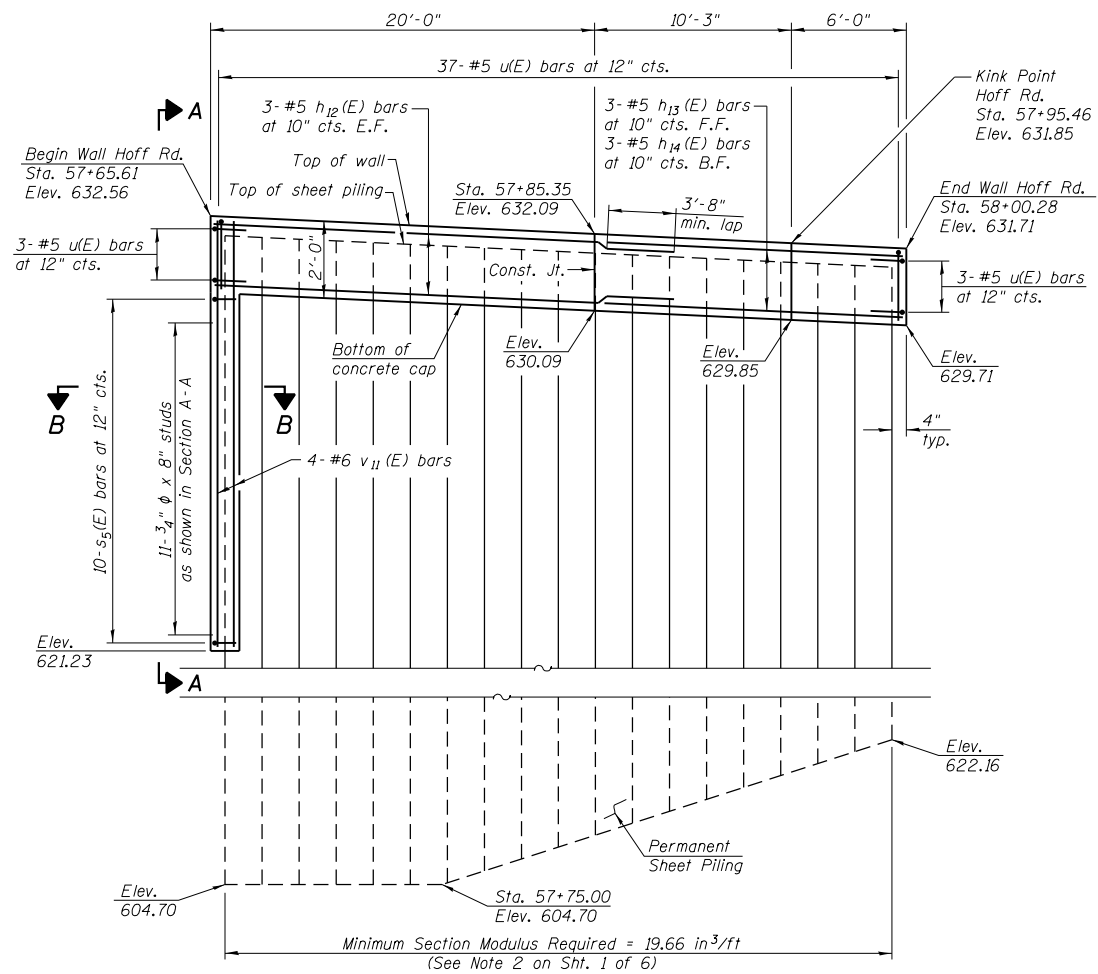
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILED PLAN AND ELEVATION 1  
SOUTH WALL

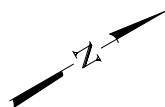
SHEET 3 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	109
CONTRACT NO. 62B32				

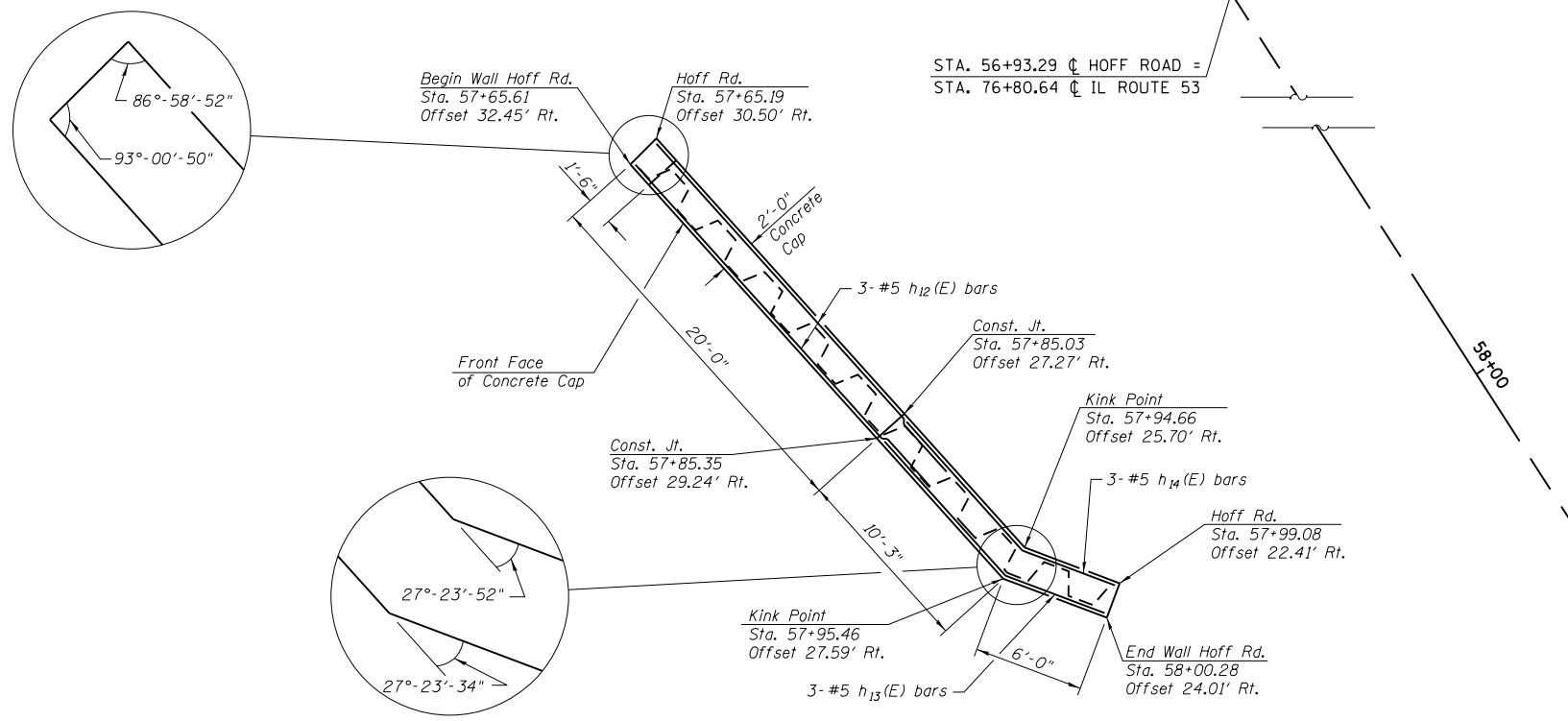
ILLINOIS FED. AID PROJECT



Note:  
For Sections A-A and  
B-B, see sheet 5 of 6.



**ELEVATION**  
(Looking at Front Face)



**PLAN**

(Cap corners at right angles except as detailed above)



USER NAME = drew.brouk	DESIGNED - KWB	REVISED -
	CHECKED - GAC	REVISED -
PLOT SCALE =	DRAWN - MJP	REVISED -
PLOT DATE = 3/21/2016	CHECKED - KWB	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

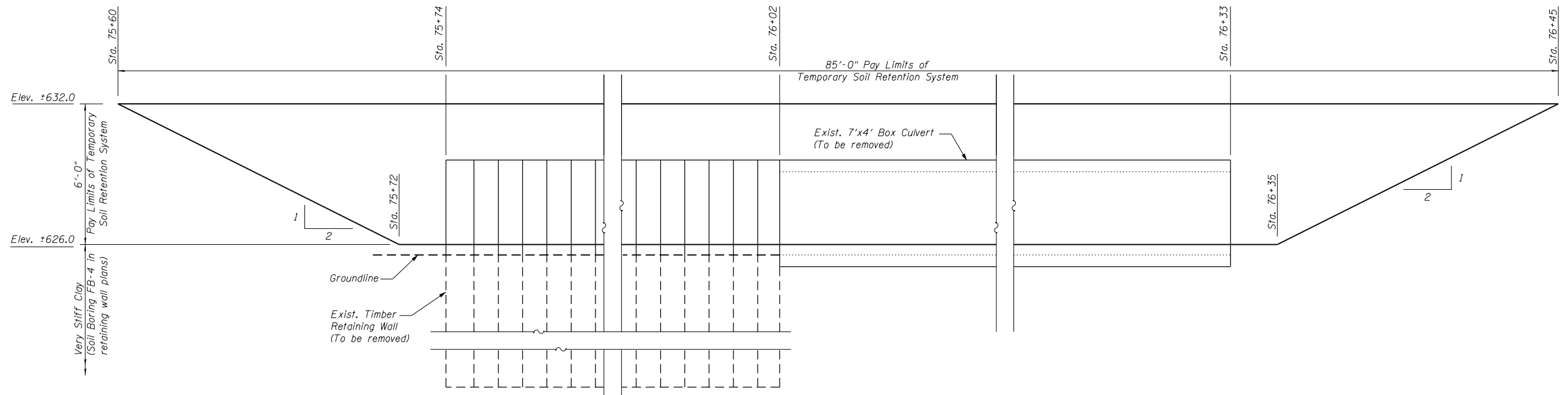
DETAILED PLAN AND ELEVATION 2  
SOUTH WALL

SHEET 4 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	110
CONTRACT NO. 62B32				

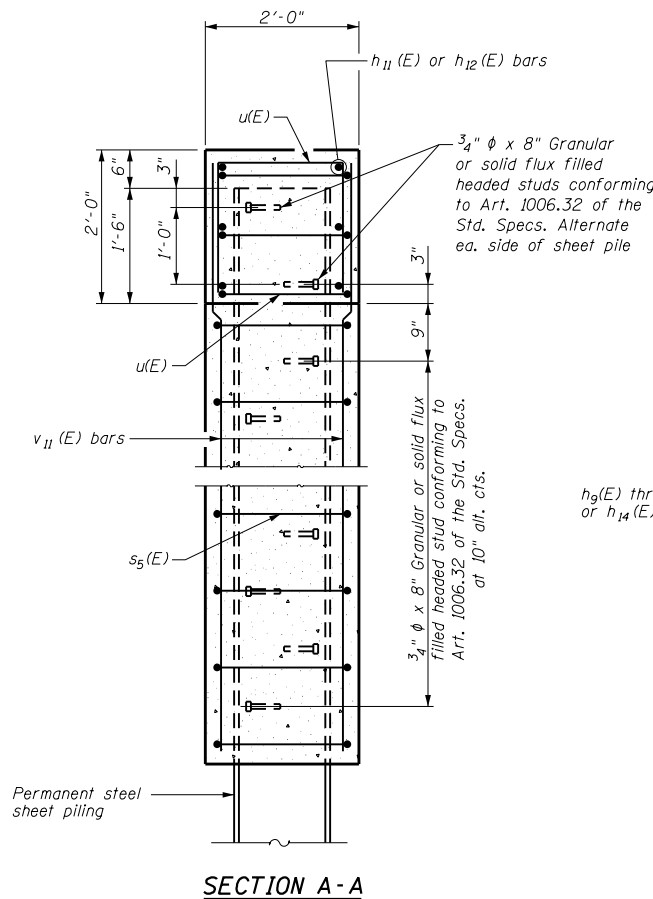
ILLINOIS FED. AID PROJECT

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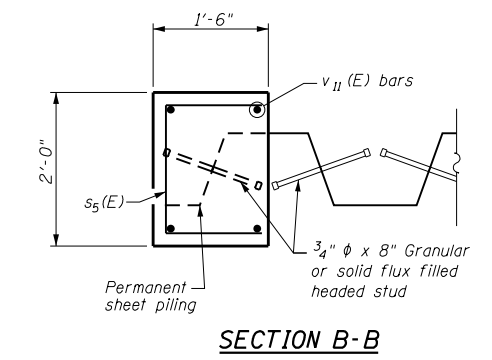


**ELEVATION - TEMPORARY SOIL RETENTION SYSTEM**

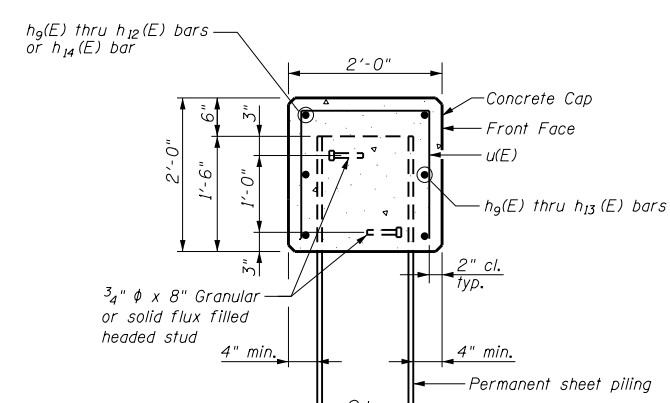
Note:  
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer. See Sht. 1 of 6 for plan view location of TSRS.



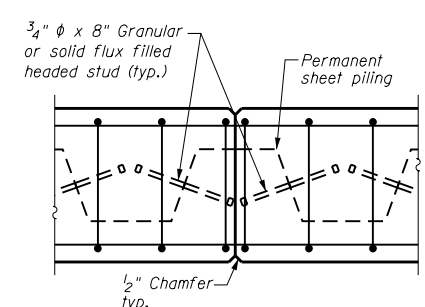
**SECTION A-A**



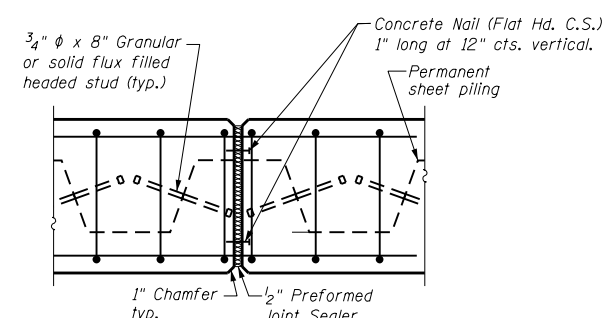
**SECTION B-B**



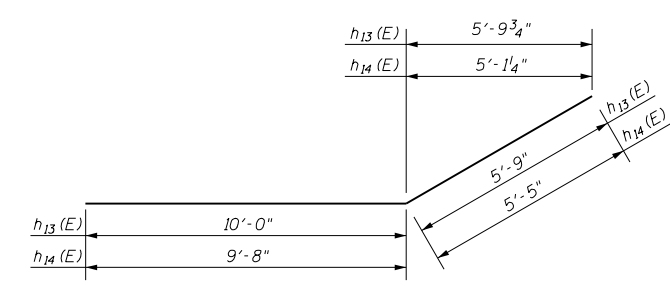
**SECTION THRU CONCRETE CAP**



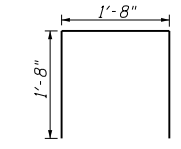
**WALL CONSTRUCTION JOINT**



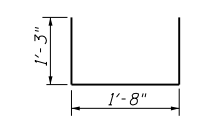
**WALL EXPANSION JOINT**



**BARS h<sub>13</sub>(E) & h<sub>14</sub>(E)**



**BAR u(E)**



**BAR s<sub>5</sub>(E)**

**SOUTH WALL BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h <sub>9</sub> (E)	18	#5	33'-8"	—
h <sub>10</sub> (E)	6	#5	29'-8"	—
h <sub>11</sub> (E)	6	#5	6'-7"	—
h <sub>12</sub> (E)	6	#5	23'-8"	—
h <sub>13</sub> (E)	3	#5	15'-9"	—
h <sub>14</sub> (E)	3	#5	15'-1"	—
s <sub>5</sub> (E)	20	#5	4'-2"	□
u(E)	178	#5	5'-0"	□
v <sub>11</sub> (E)	8	#6	11'-0"	—
Concrete Structures		Cu. Yd.	26.3	
Stud Shear Connectors		Each	250	
Reinforcement Bars, Epoxy Coated		Pound	2260	
Permanent Sheet Piling		Sq. Ft.	3930	
Temporary Soil Retention System		Sq. Ft.	444	

FILE NAME: c:\neworking\drw\brwk\transportation\dim12465\DI62B32-shr-ret-wall-south-05.dgn



USER NAME = drew.brwk	DESIGNED - KWB	REVISED -
PLOT SCALE =	CHECKED - GAC	REVISED -
PLOT DATE = 3/21/2016	DRAWN - MJP	REVISED -
	CHECKED - KWB	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET PILE WALL DETAILS  
SOUTH WALL  
SHEET 5 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	111
CONTRACT NO.			62B32	
ILLINOIS FED. AID PROJECT				

ROUTE IL Rte. 53 & Hoff Rd. DESCRIPTION High Speed Rail Chicago to Quad Cities LOGGED BY JAR  
 SECTION Mile Post 46.64 LOCATION Northing 1721472.7763 Easting 1043839.3169  
 COUNTY Will DRILLING METHOD \_\_\_\_\_ HSA \_\_\_\_\_ HAMMER TYPE AUTO

STRUCT. NO. NA SURFACE WATER ELEV. NA ft  
 Station NA STREAM BED ELEV. NA ft  
 BORING NO. FB-4 GROUNDWATER ELEV.:  
 Station 76+80 First Encounter 613.5 ft  
 Offset None ft  
 Ground Surface Elev. 631.01 ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (6")	UCS (tsf)	MOIST (%)	ORGANIC (%)	NOTES
8						Gray, Moist FILL: Crushed aggregate
6				6		
2						628.51
3						Black and Brown, Very Moist FILL: CLAY
3		2.0	30	92.5		
4		P				628.01
2						Very Stiff Brown and Gray, Moist CLAY (CL), trace gravel
3		2.5	19			
4		P				
6						
4		2.5	19			
5		B				-10
3						
5		3.5	17	114.8		
7		B				617.01
3						
7		5.0	15			Hard Gray, Moist SILTY CLAY (CL/ML), trace gravel
8		B				-15
5						
7		5.0	15			
14		B				613.51
2						Medium Dense Gray, Moist SAND (SP), trace gravel
4		3.1	17			612.51
5		B				Very Stiff Gray, Moist SILTY CLAY (CL), trace gravel
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)

ROUTE IL Rte. 53 & Hoff Rd. DESCRIPTION High Speed Rail Chicago to Quad Cities LOGGED BY JAR  
 SECTION Mile Post 46.64 LOCATION Northing 1721472.7763 Easting 1043839.3169  
 COUNTY Will DRILLING METHOD \_\_\_\_\_ HSA \_\_\_\_\_ HAMMER TYPE AUTO

STRUCT. NO. NA SURFACE WATER ELEV. NA ft  
 Station NA STREAM BED ELEV. NA ft  
 BORING NO. FB-4 GROUNDWATER ELEV.:  
 Station 76+80 First Encounter 613.5 ft  
 Offset None ft  
 Ground Surface Elev. 631.01 ft

DEPTH (ft)	GRAPHIC LOG	BLOWS (6")	UCS (tsf)	MOIST (%)	ORGANIC (%)	NOTES
3						Very Stiff Gray, Moist SILTY CLAY (CL), trace gravel (continued)
4		2.5	16	117.2		
7		B				
3						
4		2.1	16			
7		B				-25
3						
5		2.5	16			
7		B				
4						602.01
9		2.0	8	133.1		Stiff Gray, Moist SILT (ML)
11		P				-30
4						
9			17			
11						596.01
5						
6		2.1	27			Very Stiff Gray, Very Moist CLAY (CL)
7		B				
5						591.01

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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PLOT DATE = 3/21/2016	DRAWN - MJP	REVISED -
	CHECKED - KWB	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG FB-4  
 SOUTH WALL  
 SHEET 6 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	112
CONTRACT NO.			62B32	
ILLINOIS FED. AID PROJECT				

Benchmark: CP 163, mag nail north of Hoff Road on concrete island and east of IL Route 53. Sta 57+70.50, 30.08' LT, 633.745

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	748
Geotechnical Fabric for Ground Stabilization	Sq. Yd.	100
Aggregate Subgrade Improvement	Cu. Yd.	67
Removal of Existing Structures No. 1	Each	1
Concrete Headwall Removal	Each	2
Structure Excavation	Cu. Yd.	248
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	67
Reinforcement Bars	Pound	22,240
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	124.5

**WATERWAY INFORMATION**

(Independent Model with Surveyed Data)

Route: Hoff Road Existing SN: N/A Computed: RLW Date: 03-14-2016  
 Section: DIHSRR2016-01 Proposed SN: N/A Checked: MYS Date: 03-14-2016  
 County: Will Waterway: Unnamed Tributary to Grant Creek

Flood	Freq. Yr.	Q C.F.S.	Opening (sq ft)		Nat. H.W.E. (ft)		Head (ft)		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	25	284	24	36	628.96	0.85	-	629.81	627.83	
Base	50	336	24	36	630.51	2.61	0.11	633.12	630.62	
Overtop Ex.	25	284	24	36	630.51	2.61	0.11	633.12	630.62	
Overtop Pr.	-	-	-	-	-	-	-	-	-	
Max. Calc.	100	385	24	36	631.12	2.37	1.43	633.49	632.55	

10 Year Velocity through Exist. Structure = 6.51 fps  
 10 Year Velocity through Prop. Structure = 7.90 fps  
 2 Year flow rate = 94 cfs

DATUM: NAVD 88  
 ALL-TIME H.W.E. & DATE: N/A  
 SCOPE OF WORK: Replace Existing Box Culverts according to proposed site geometry.

EXISTING STRUCTURE	PROPOSED STRUCTURE
Type: 3'X3' BOX CULVERT	Type: 12'X4' BOX CULVERT*
Length: 88'	Length: 107'
Span: 3'	Span: 12'
Low Beam: N/A	Low Beam: N/A
U/S Invert: 627.129	U/S Invert: 624.71
D/S Invert: 626.902	D/S Invert: 624.39
Skew: 57°01'21.31"	Skew: 57°15'26.61"

\*EFFECTIVE OPENING 12'X3'

EXISTING STRUCTURE	PROPOSED STRUCTURE
Type: 5'X3' BOX CULVERT	
Length: 82'	
Span: 5'	
U/S Invert: 627.033	
D/S Invert: 626.768	
Skew: 56°49'38.5"	

EXISTING EMBEDMENT	PROPOSED EMBEDMENT
Depth: N/A	Depth: 1.0'
U/S Streambed Elev: 625.74	U/S Streambed Elev: 625.71
D/S Streambed Elev: 625.90	D/S Streambed Elev: 625.39

**INDEX OF SHEETS**

1. General Plan & Elevation
2. Box Culvert Details 1
3. Box Culvert Details 2
4. Box Culvert End Section Details
5. Culvert Backfill Details

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	Upstream	Downstream
	621.54	621.22

**LOADING HL-93**

Allow 50/sq. ft. for future wearing surface

**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

**DESIGN STRESSES**

FIELD UNITS  
 $f'_c = 3,500 \text{ psi}$   
 $f_y = 60,000 \text{ psi (reinforcement)}$

TRIBUTARY TO GRANT CREEK  
 BUILT 201. BY  
 STATE OF ILLINOIS  
 HOFF ROAD STATION 57+76.07  
 SECTION DIHSRR2016-01  
 STR. NO. 099-3032 LOADING HL-93

**NAME PLATE**

See Std. 515001

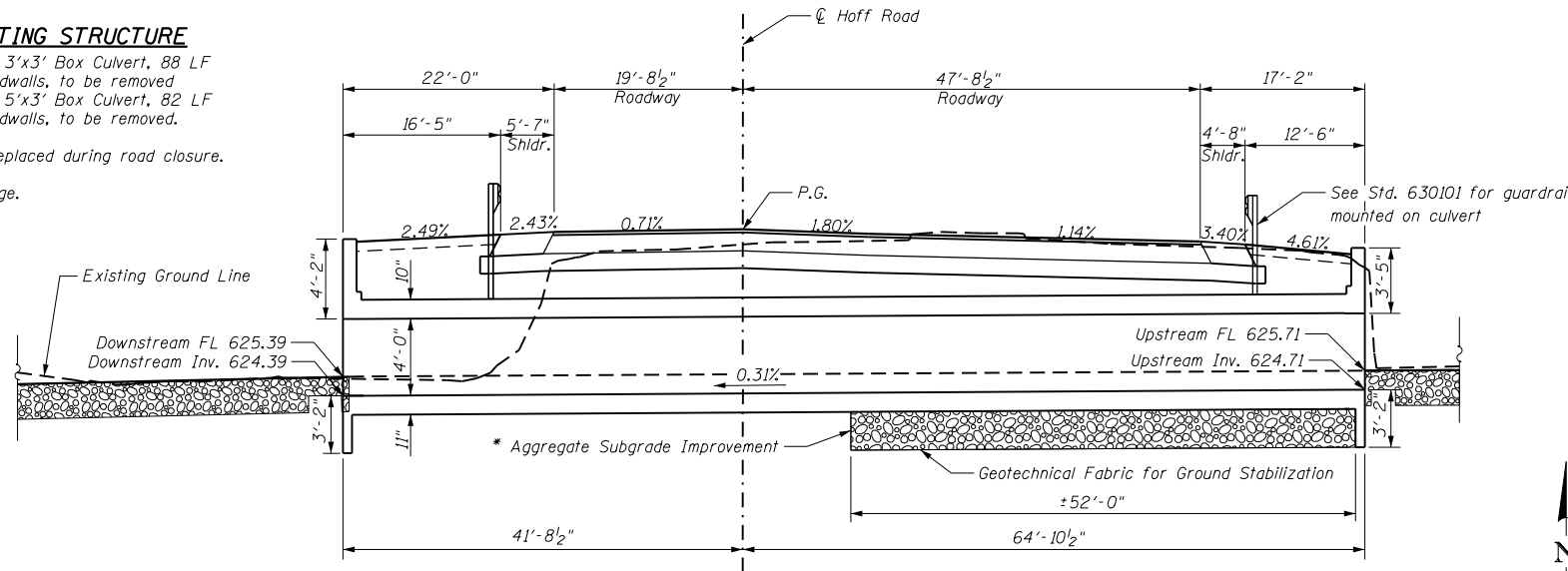
**GENERAL PLAN & ELEVATION**  
**HOFF ROAD OVER TRIBUTARY TO GRANT CREEK**  
**SECTION DIHSRR2016-01**  
**WILL COUNTY**  
**STA. 57+76.07**  
**EXISTING STRUCTURE NO. 099-0427**  
**PROPOSED STRUCTURE NO. 099-3032**

**EXISTING STRUCTURE**

Existing 3'x3' Box Culvert, 88 LF with headwalls, to be removed  
 Existing 5'x3' Box Culvert, 82 LF with headwalls, to be removed.

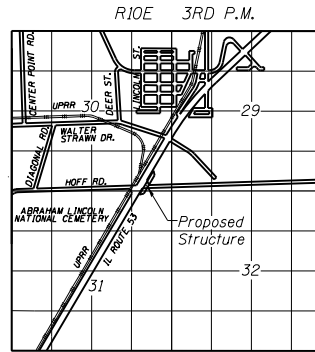
To be replaced during road closure.

No salvage.

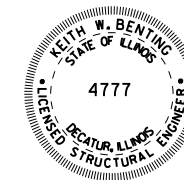
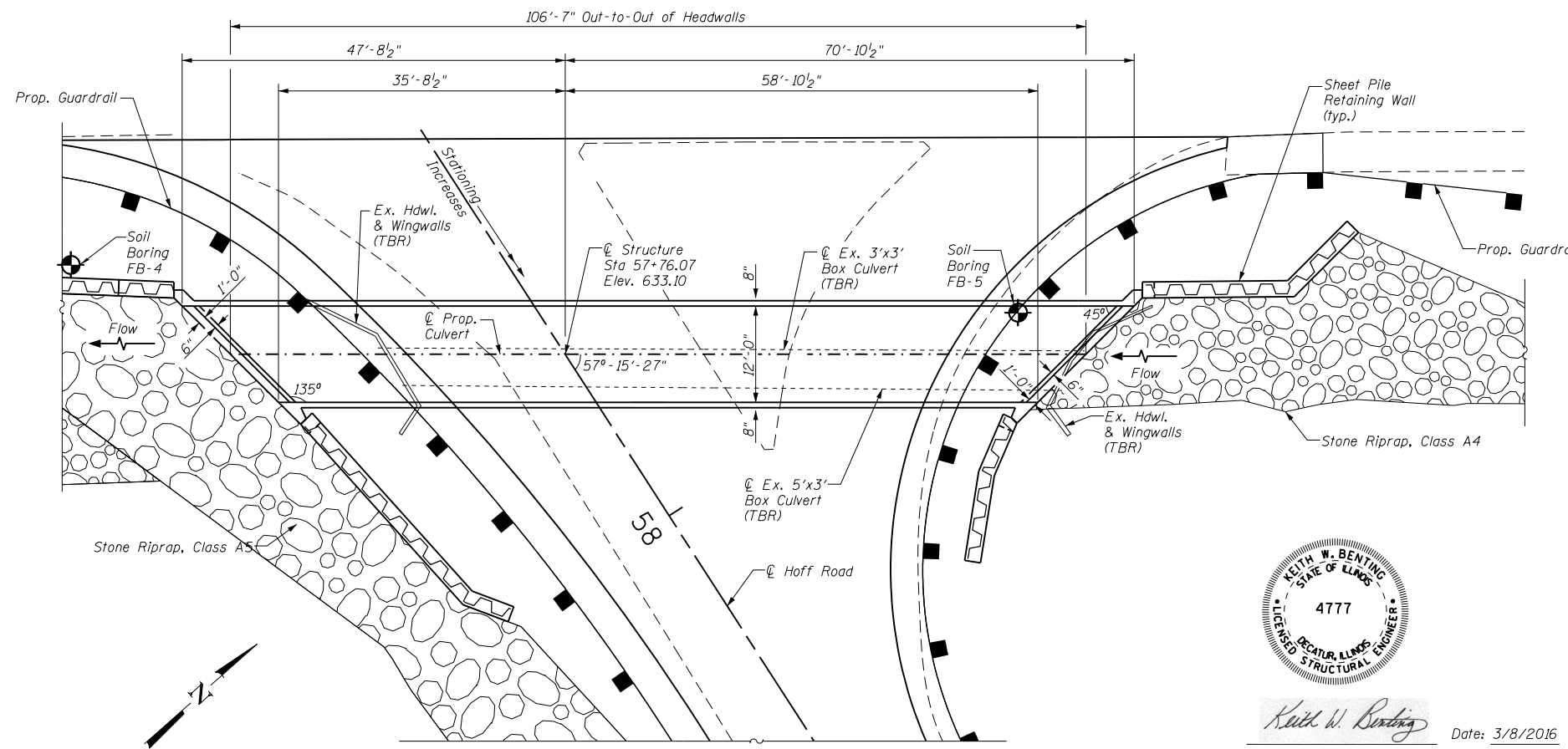


**PROFILE GRADE**

(Along Hoff Road)



\* Remove approximately 2 feet of unsuitable soil beneath the footprint of the box culvert and extend two feet beyond the perimeter of the culvert. Replace with Aggregate Subgrade Improvement. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.



Keith W. Bunting  
 Licensed Structural Engineer  
 State of Illinois No. 081-004777  
 License Expires 11/30/2016  
 Date: 3/8/2016



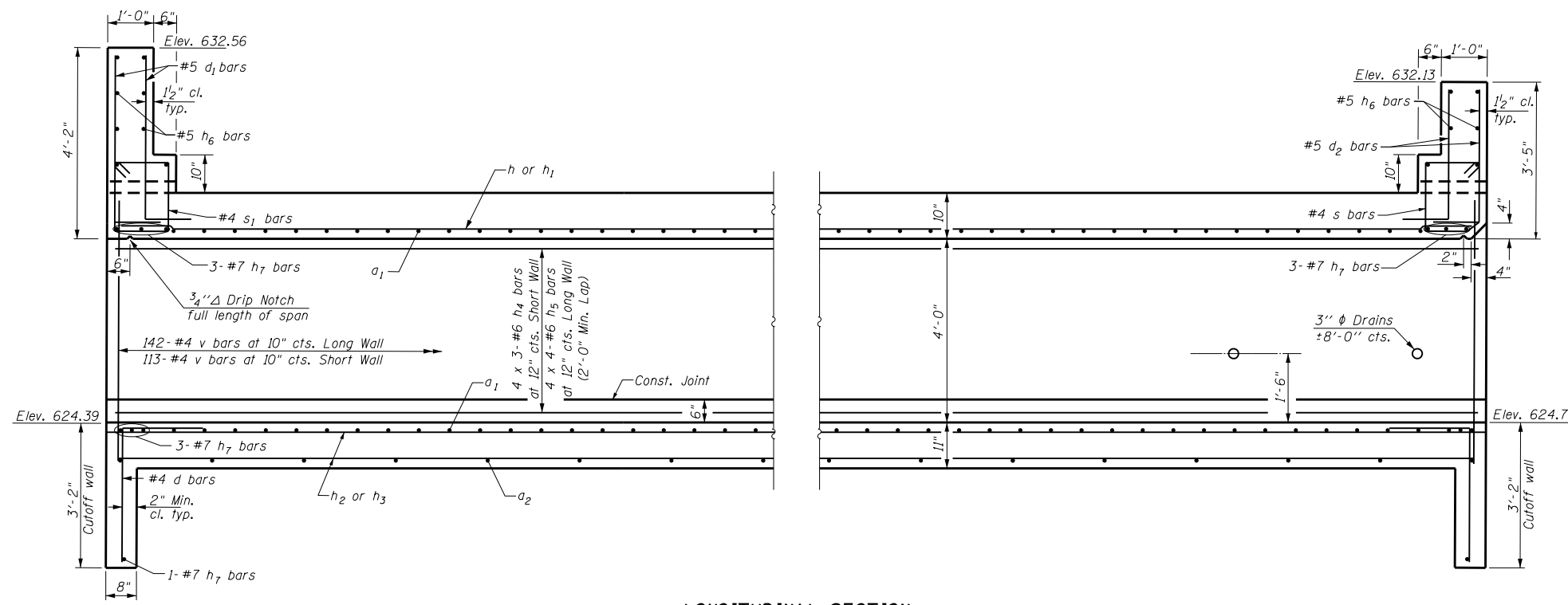
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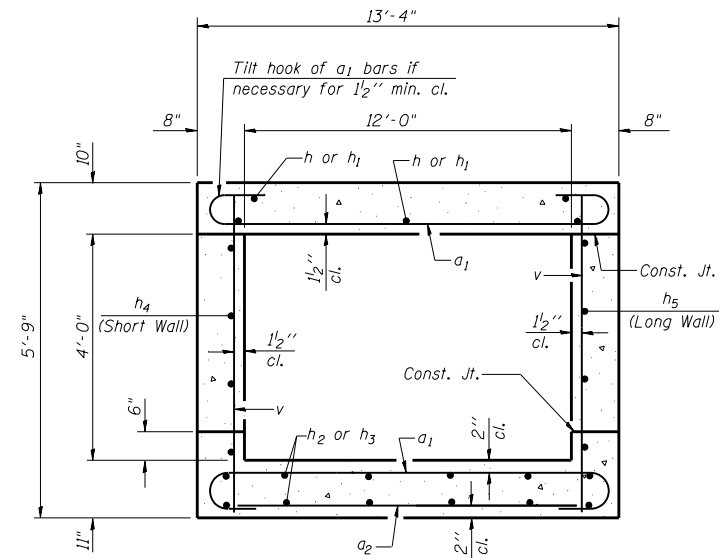
GENERAL PLAN & ELEVATION  
 STRUCTURE NO. 099-3032

SHEET 1 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	113
CONTRACT NO. 62B32				
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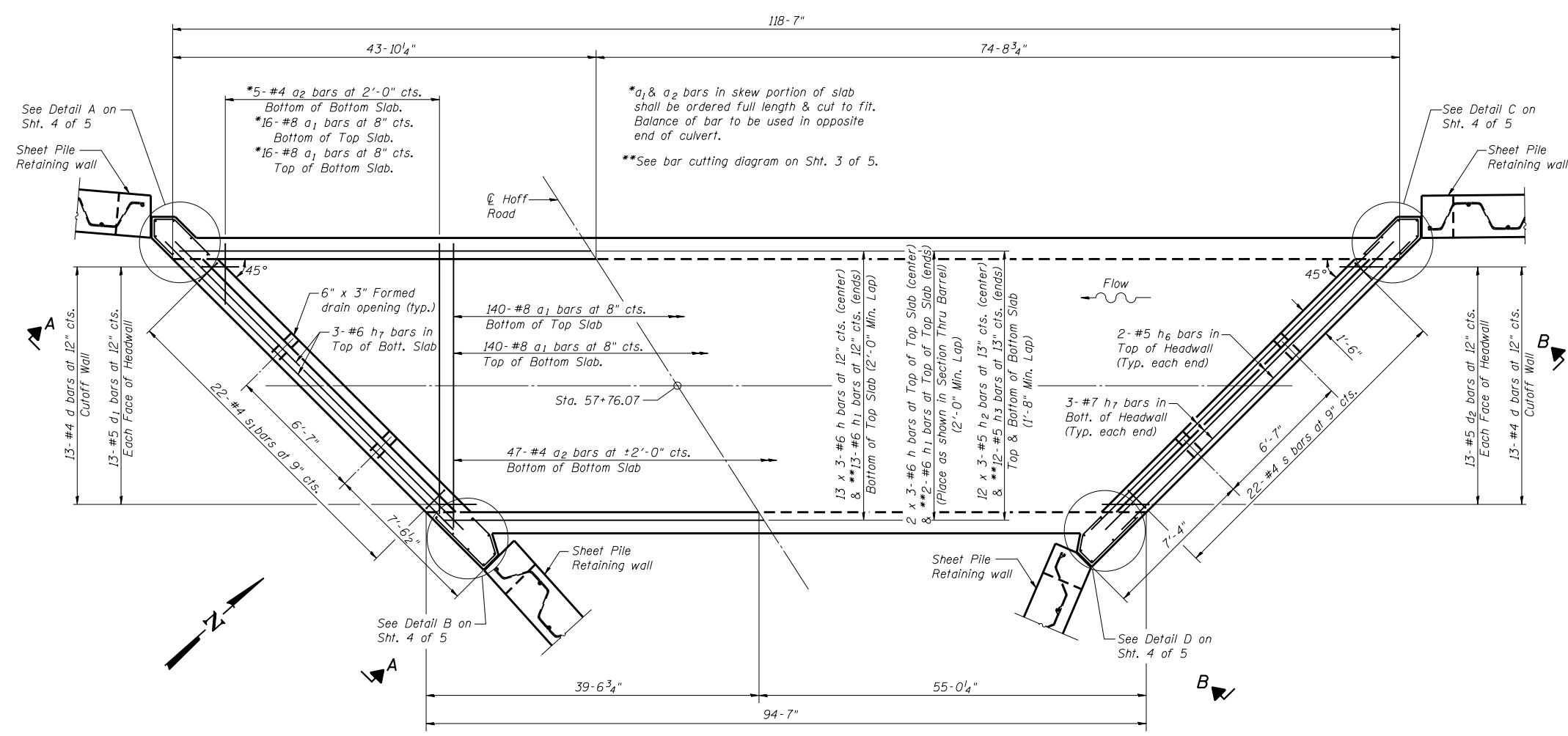
**LONGITUDINAL SECTION**



**SECTION THRU BARREL**  
(Looking Downstream)

**GENERAL NOTES**

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.  
 Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.  
 A precast concrete culvert alternate will not be allowed.  
 A distance of not less than 6 feet of the barrel shall be poured monolithically with the end sections.  
 Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60.  
 Bars indicated thus 13 x 3-#6 etc. indicates 13 lines of bars with 3 lengths per line.  
 See sheet 3 of 5 for Views A-A & B-B and bar bending details.  
 See retaining wall plans for boring FB-4 and FB-5.



**PLAN**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
* a1	312	#8	14'-10"	U
* a2	52	#4	12'-8"	U
d	26	#4	4'-8"	U
d1	26	#5	4'-9"	U
d2	26	#5	4'-0"	U
h	45	#6	26'-1"	U
** h1	15	#6	36'-0"	U
h2	72	#5	27'-8"	U
h3	24	#5	30'-0"	U
h4	12	#6	32'-8"	U
h5	16	#6	31'-2"	U
h6	14	#5	19'-6"	U
h7	14	#7	19'-6"	U
h8	12	#4	5'-3"	U
h9	12	#4	6'-1"	U
h10	11	#4	5'-8"	U
h11	11	#4	5'-3"	U
s	22	#4	5'-7"	U
s1	22	#4	5'-9"	U
v	255	#4	5'-5"	U
v1	13	#5	11'-0"	U
v2	12	#5	10'-3"	U
Concrete Box Culverts	Cu. Yd.	124.5		
Reinforcement Bars	Pound	22,240		



USER NAME = drew\_brouk  
 PLOT SCALE =  
 PLOT DATE = 3/21/2016

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 DRAWN - MJP  
 CHECKED - KWB

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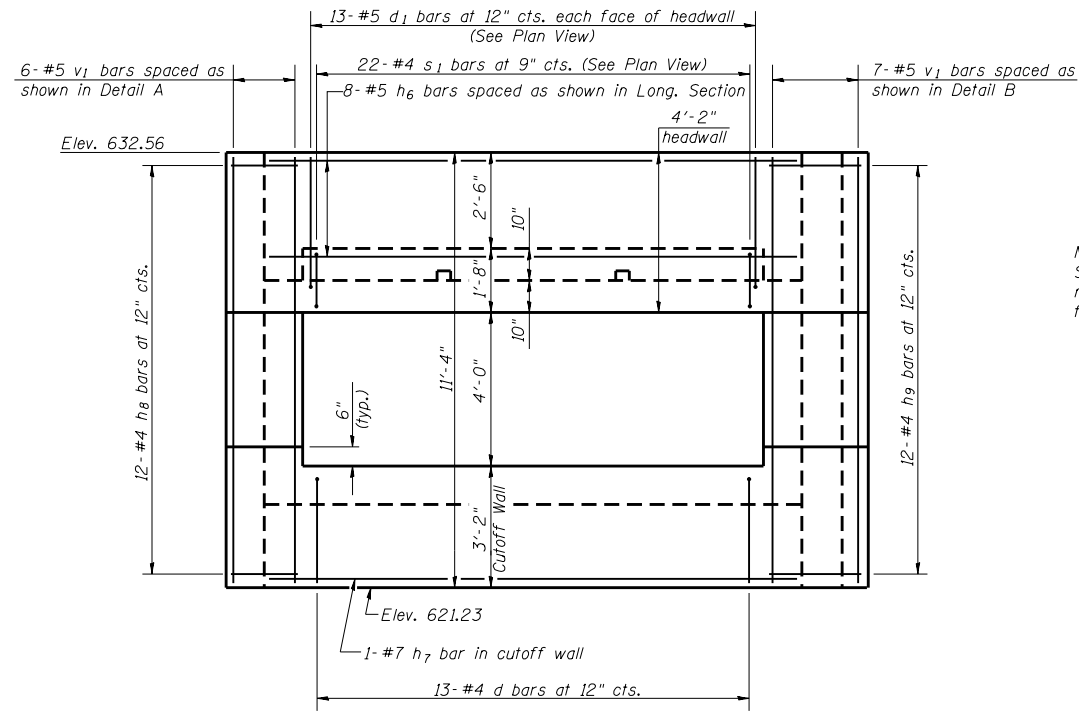
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BOX CULVERT DETAILS 1  
 STRUCTURE NO. 099-3032

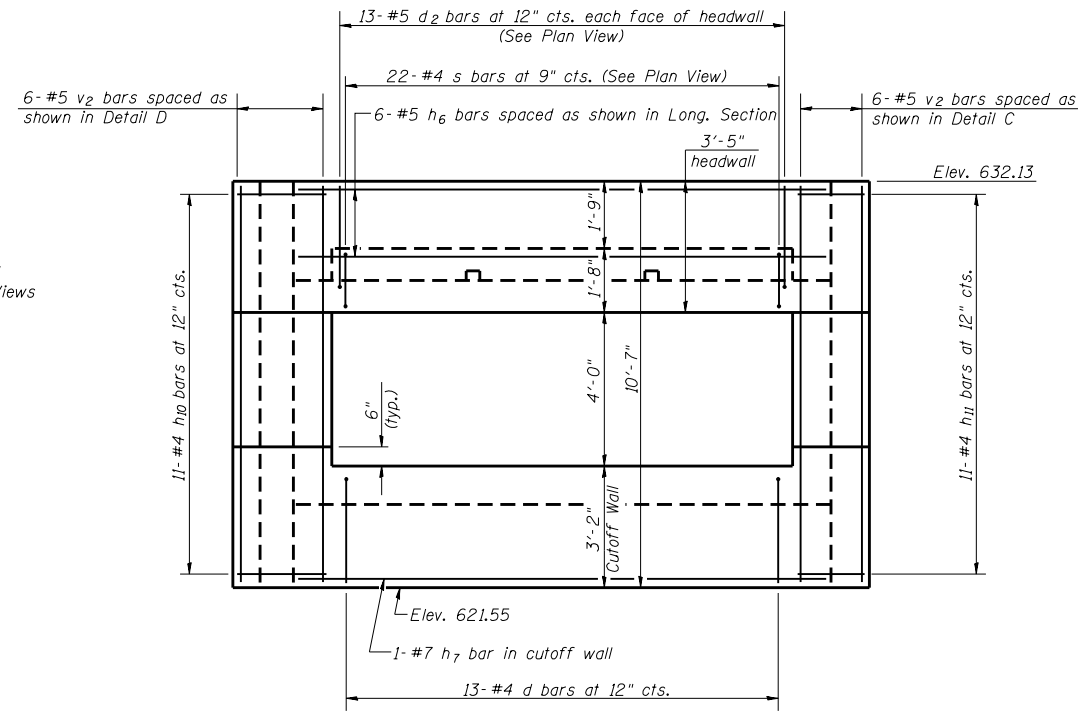
SHEET 2 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	114
				CONTRACT NO. 62B32

ILLINOIS FED. AID PROJECT

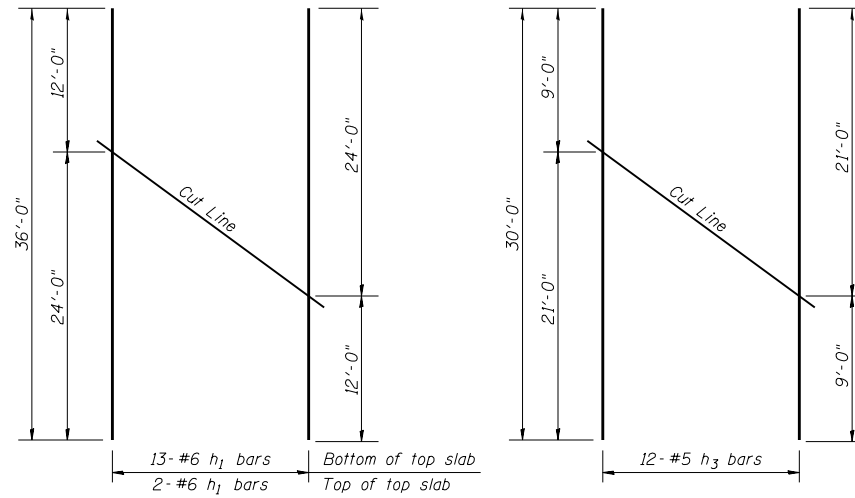
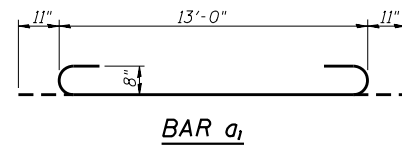


**VIEW A-A**  
(Downstream)



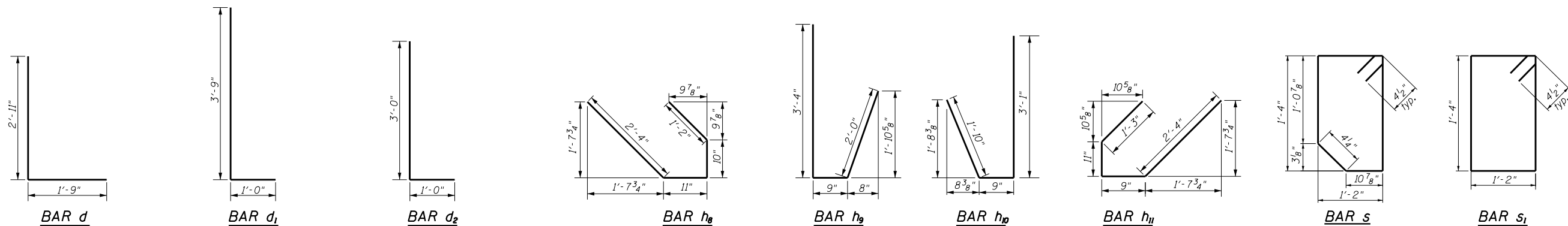
**VIEW B-B**  
(Upstream)

Note:  
Sheet Pile Retaining Wall  
not shown in Elevation Views  
for clarity.



**BAR CUTTING DIAGRAMS**

Order bars full length. Cut as shown and use bottom portion in opposite end of culvert.



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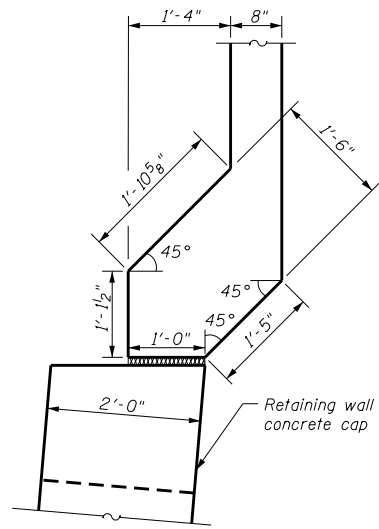
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT DETAILS 2  
STRUCTURE NO. 099-3032**

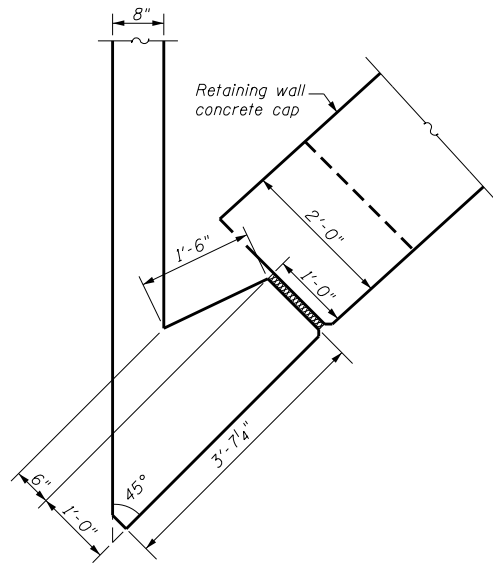
SHEET 3 OF 5 SHEETS

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846	DIHSRR2016-01	WILL	146	115
CONTRACT NO. 62B32				

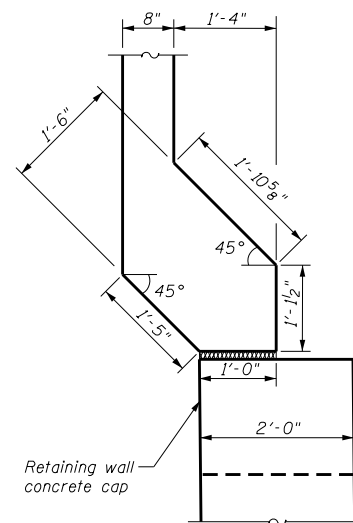
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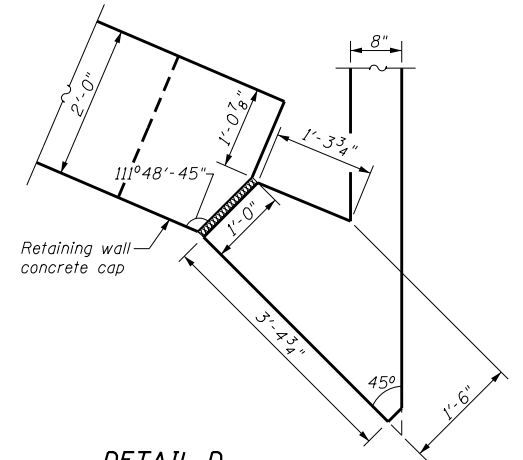
**DETAIL A**  
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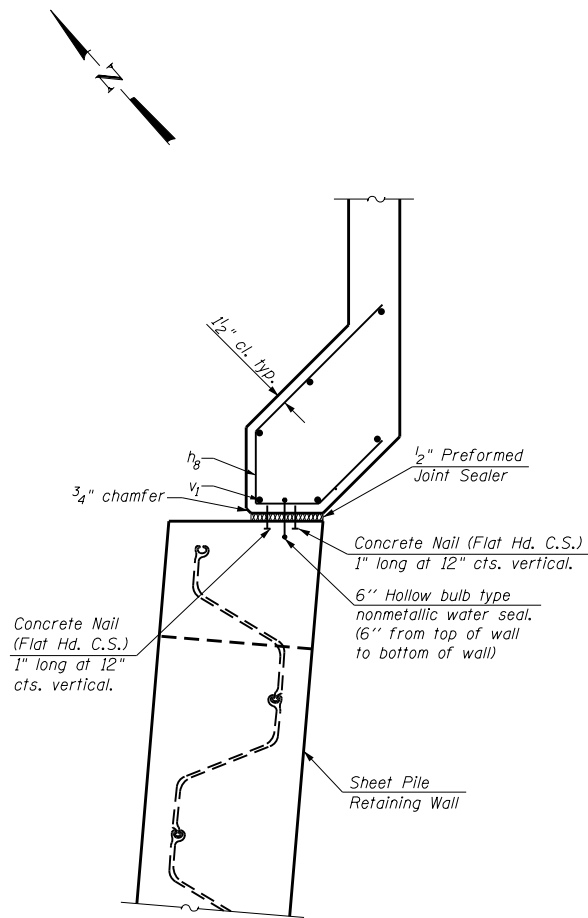
**DETAIL B**  
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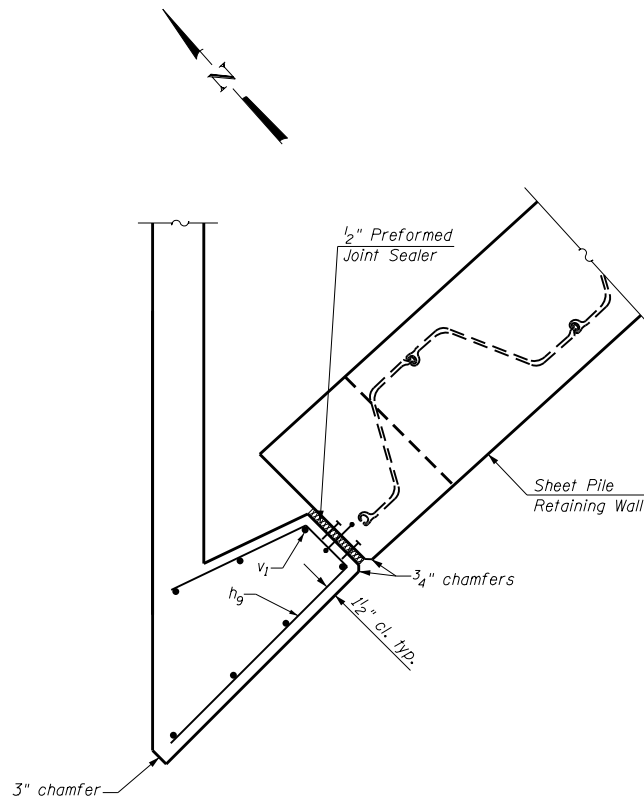
**DETAIL C**  
(Showing dimensions-NW End Section)



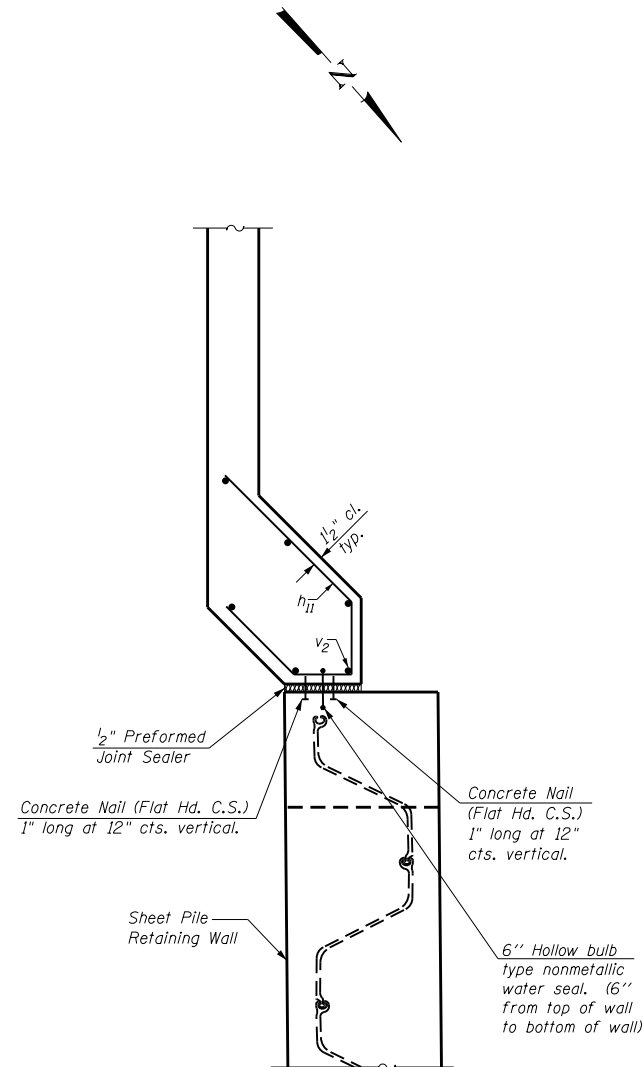
**DETAIL D**  
(Showing dimensions-NE End Section)



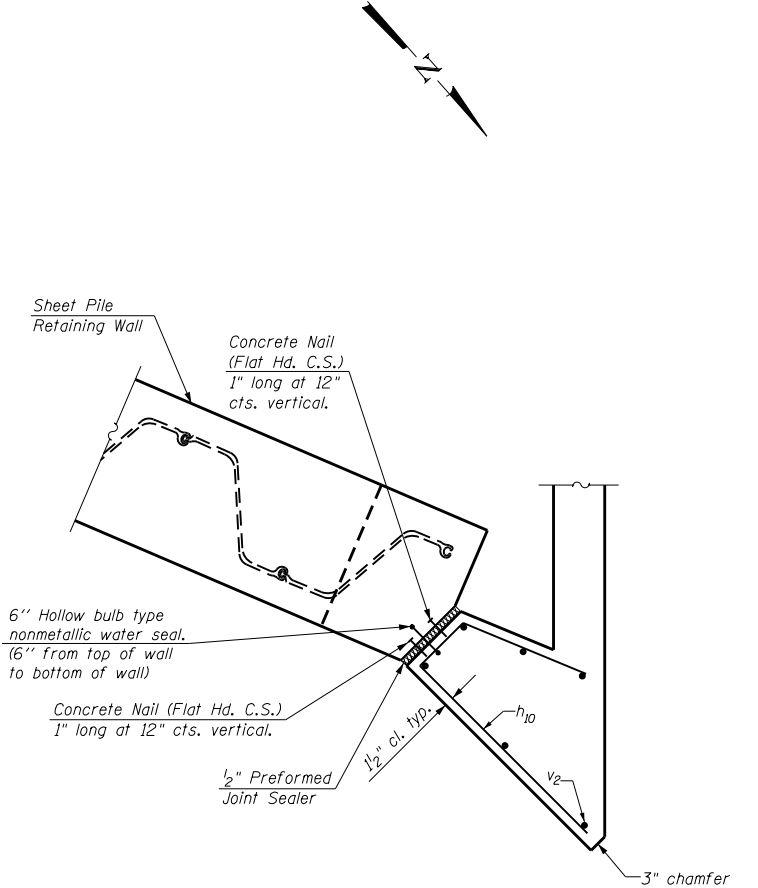
**DETAIL A**  
(Showing reinforcement and seal - SW End Section)



**DETAIL B**  
(Showing reinforcement and seal - SE End Section)



**DETAIL C**  
(Showing reinforcement and seal - NW End Section)



**DETAIL D**  
(Showing reinforcement and seal - NE End Section)

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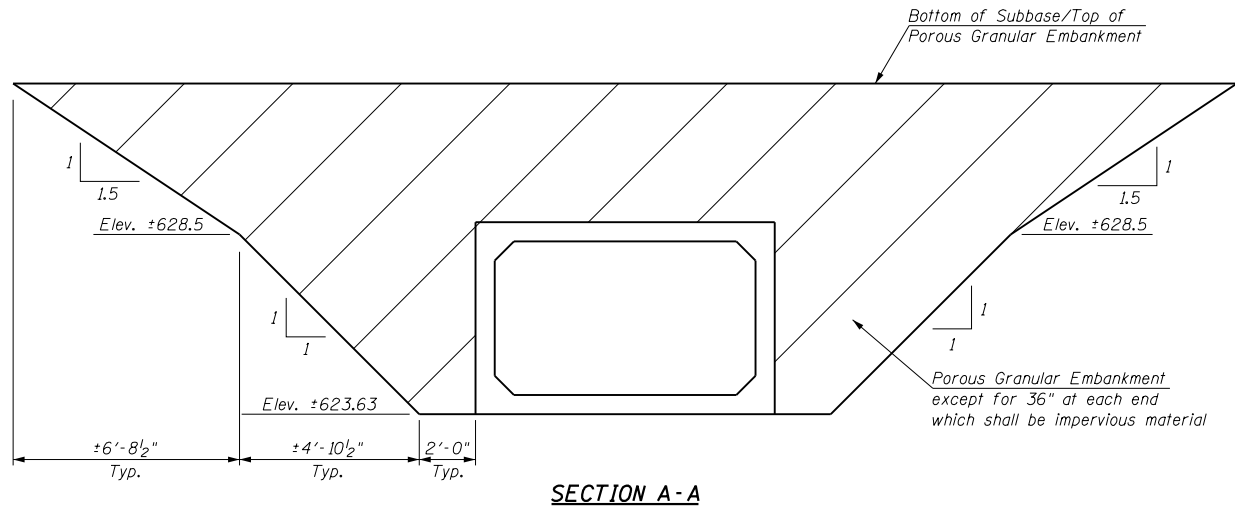
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS  
STRUCTURE NO. 099-3032

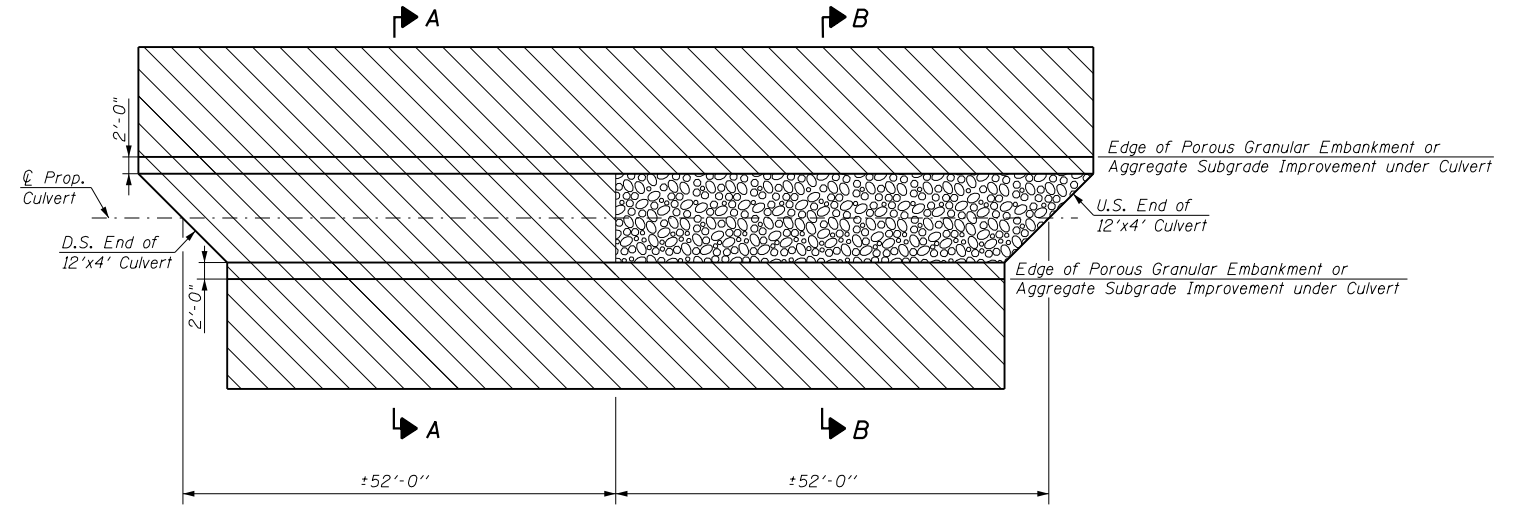
SHEET 4 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	116
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				

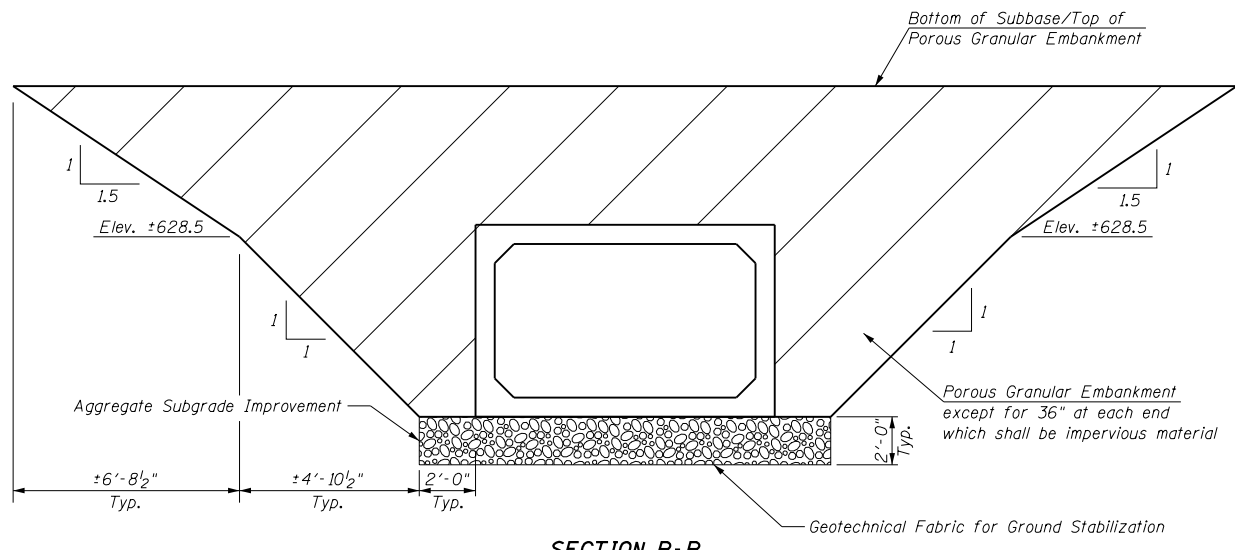




**SECTION A-A**



**PGE CULVERT BACKFILL PLAN**



**SECTION B-B**

**Note:**  
 The area below the box and wingwalls shall be over excavated by 2'-0" and filled with 2'-0" of Aggregate Subgrade Improvement.  
 The following items shall be paid for separately:  
 Removal and Disposal of Unsuitable Material for Structures,  
 Aggregate Subgrade Improvement, & Geotechnical Fabric for Ground Stabilization.

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PLOT DATE = 3/21/2016	CHECKED - KWB	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CULVERT BACKFILL DETAILS  
 STRUCTURE NO. 099-3032**

SHEET 5 OF 5 SHEETS

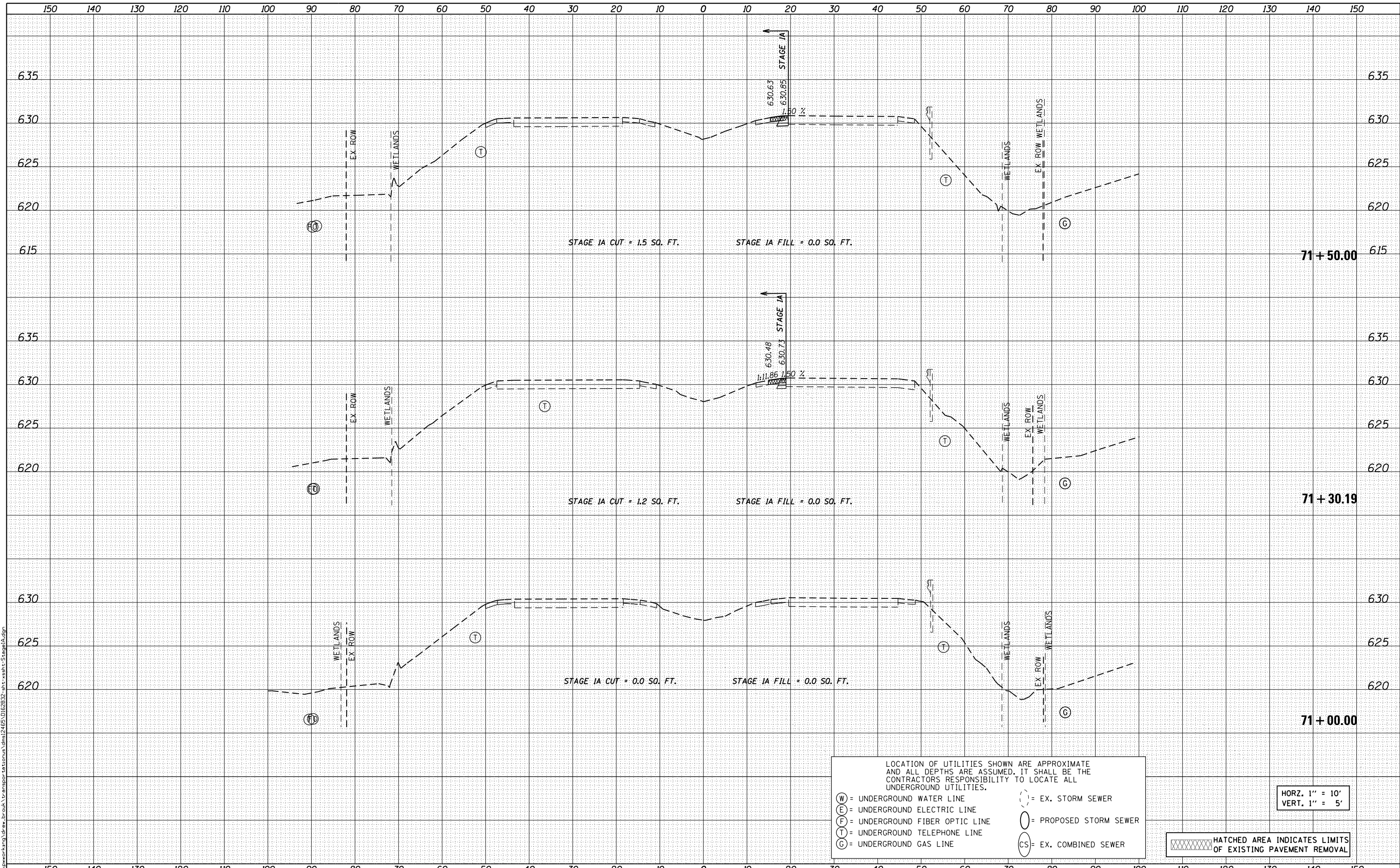
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	117
CONTRACT NO. 62B32				

ILLINOIS FED. AID PROJECT

BY	DATE
SURVEYED	PLOTTED
NOTED	TEMPLATED
AREAS CHECKED	AREAS CHECKED
NO.	NO.

BY	DATE
SURVEYED	PLOTTED
NOTED	TEMPLATED
AREAS CHECKED	AREAS CHECKED
NO.	NO.

FILE NAME = c:\work\proj\draw-brouk\transpor\to\lanus\2465\DI62832-int-xsh1-Stage1A.dgn



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 (---) = EX. STORM SEWER  
 (O) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew.brouk  
 DESIGNED - MTL  
 DRAWN - DAB  
 CHECKED - JCM  
 DATE - 03/21/2016

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS**  
**ILLINOIS ROUTE 53 STAGE 1A**  
 SCALE: 1"=10'H 5'V SHEET 1 OF 11 SHEETS STA. 70+18.99 TO STA. 71+50.00

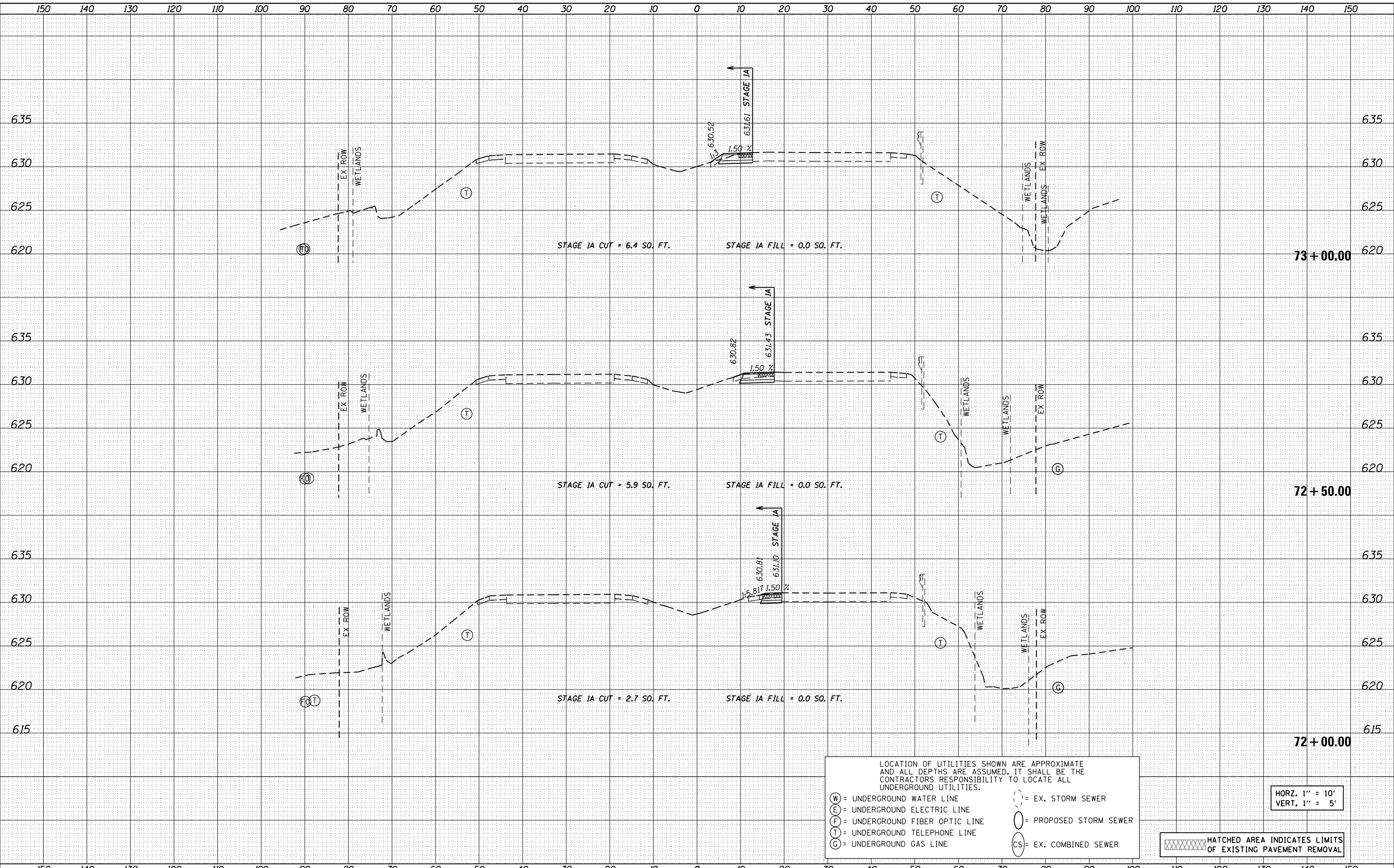
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	118
CONTRACT NO. 62B32				

ILLINOIS FED. AID PROJECT

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED

FILE NAME = c:\working\mg\drew\_brouk\transport\to\lanus\dem\2485\DI62B32-ht-xsh-t-stage1a.dgn



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE      (SS) = EX. STORM SEWER  
(E) = UNDERGROUND ELECTRIC LINE      (O) = PROPOSED STORM SEWER  
(F) = UNDERGROUND FIBER OPTIC LINE      (CS) = EX. COMBINED SEWER  
(T) = UNDERGROUND TELEPHONE LINE  
(C) = UNDERGROUND GAS LINE

HORZ. 1" = 10'  
VERT. 1" = 5'

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL



USER NAME = drew_brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS**  
**ILLINOIS ROUTE 53 STAGE 1A**

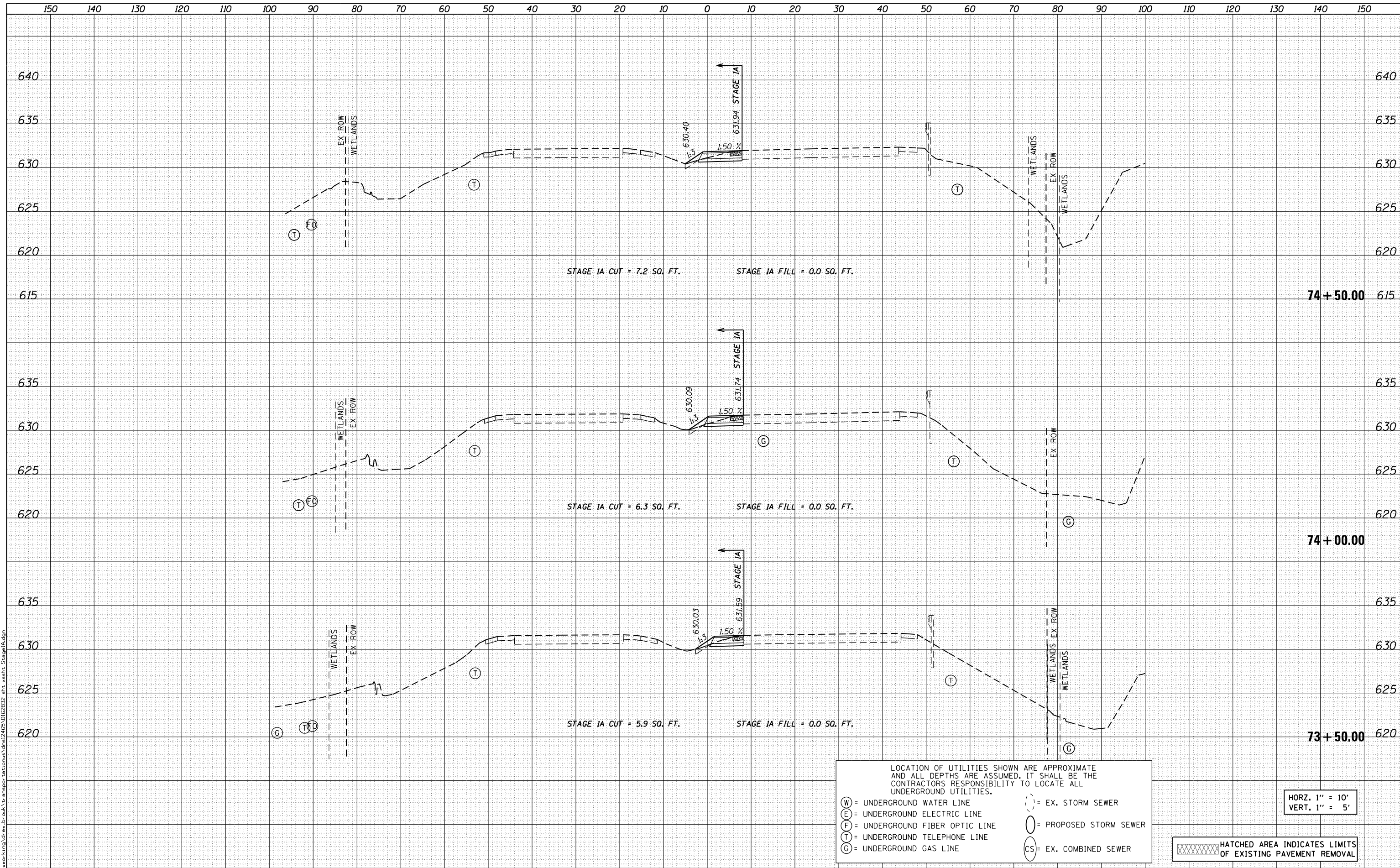
SCALE: 1"=10'H 5'V SHEET 2 OF 11 SHEETS STA. 72+00.00 TO STA. 73+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	119
				CONTRACT NO. 62B32
ILLINOIS FED. AID PROJECT				



DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE      (SS) = EX. STORM SEWER  
 (E) = UNDERGROUND ELECTRIC LINE      (PS) = PROPOSED STORM SEWER  
 (F) = UNDERGROUND FIBER OPTIC LINE      (CS) = EX. COMBINED SEWER  
 (T) = UNDERGROUND TELEPHONE LINE  
 (G) = UNDERGROUND GAS LINE

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew.brouk  
 DESIGNED - MTL  
 DRAWN - DAB  
 CHECKED - JCM  
 DATE - 03/21/2016

REVISIONS  
 REVISION NO.      DATE      BY      DESCRIPTION  
 1      -      -      -      -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
ILLINOIS ROUTE 53 STAGE 1A

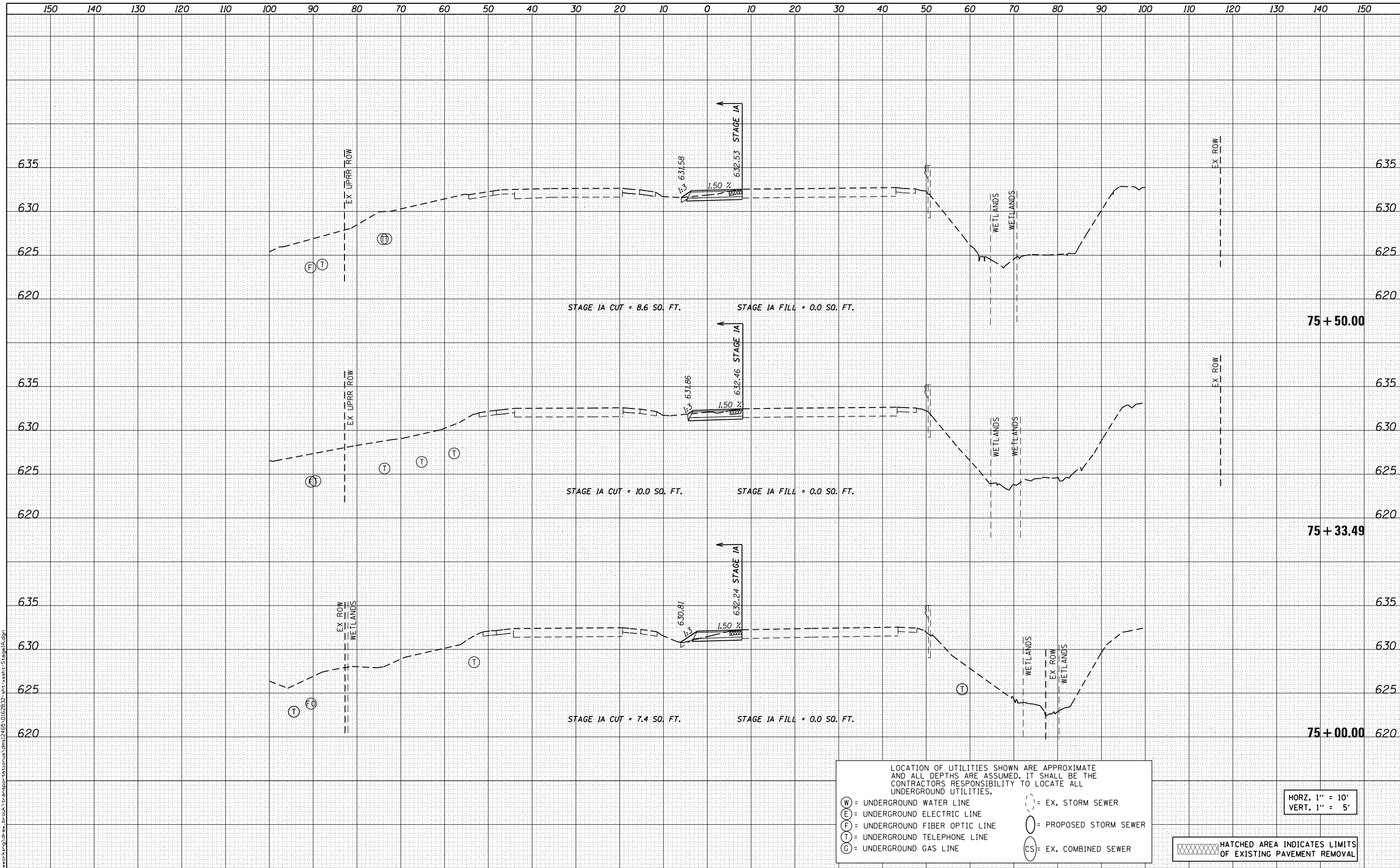
SCALE: 1"=10'H 5'V      SHEET 3 OF 11 SHEETS      STA. 73+50.00 TO STA. 74+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	120
CONTRACT NO. 62B32				

ILLINOIS FED. AID PROJECT

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

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 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 ( ) = EX. STORM SEWER  
 ( ) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME	= drew.brouk
DESIGNED	- MTL
DRAWN	- DAB
CHECKED	- JCM
DATE	- 03/21/2016

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
ILLINOIS ROUTE 53 STAGE 1A

SCALE: 1"=10'H 5'V SHEET 4 OF 11 SHEETS STA. 75+00.00 TO STA. 75+50.00

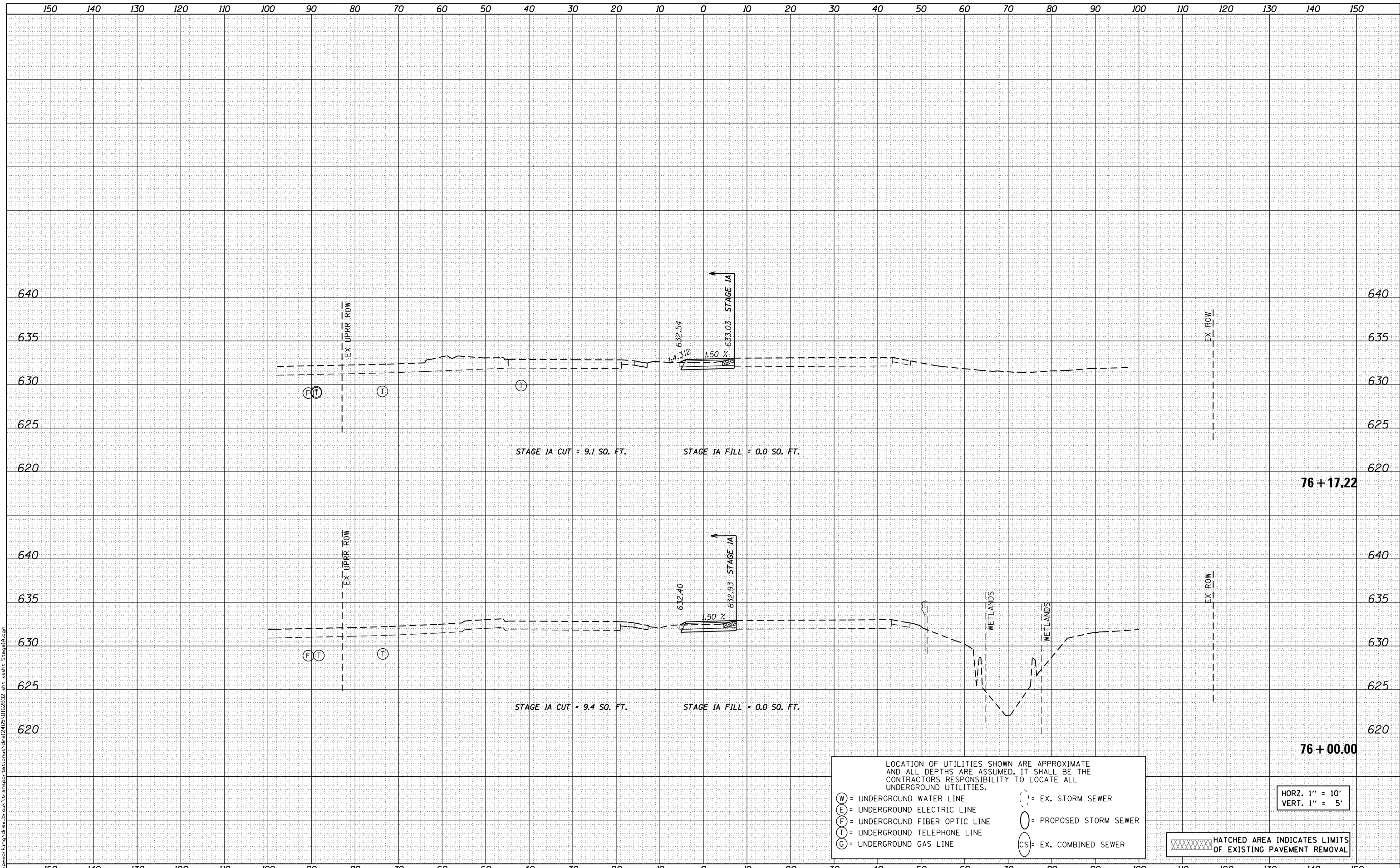
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	121
			CONTRACT NO. 62B32	

ILLINOIS FED. AID PROJECT

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
NOTE BOOK NO.	
TEMPLATE AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
NOTE BOOK NO.	
TEMPLATE AREAS CHECKED	

FILE NAME = c:\working\mg\draw\_brouk\transport\to\comus\dem\2465\DI62B32-int-xsh1-Stage1A.dgn



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 (CS) = EX. COMBINED SEWER  
 (---) = EX. STORM SEWER  
 (O) = PROPOSED STORM SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew_brouk	DESIGNED - MTL	REVISIED -
	DRAWN - DAB	REVISIED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISIED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISIED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
ILLINOIS ROUTE 53 STAGE 1A

SCALE: 1"=10'H 5'V SHEET 5 OF 11 SHEETS STA. 76+00.00 TO STA. 76+17.22

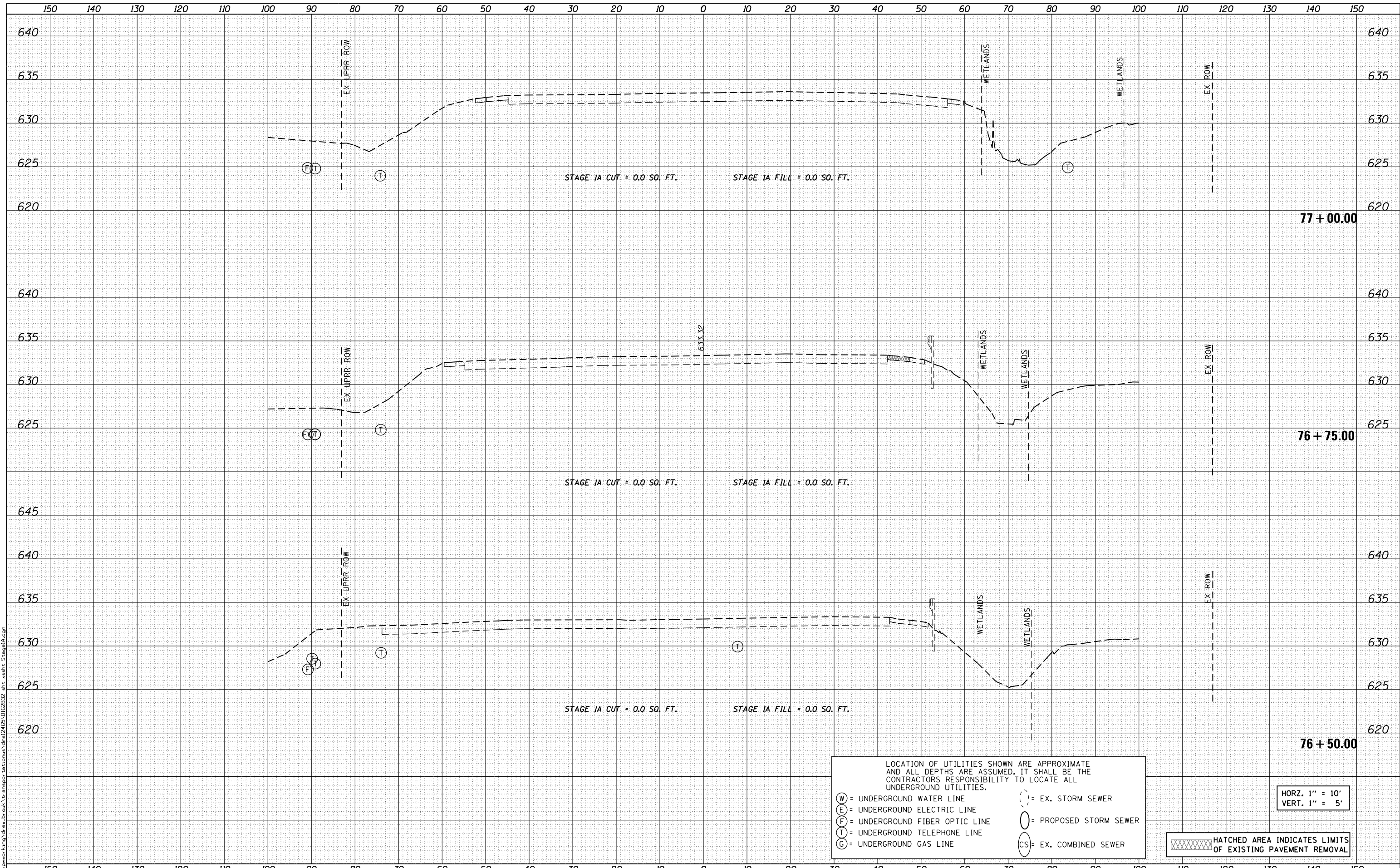
F.A.P. RTE. 846	SECTION DIHSRR2016-01	COUNTY WILL	TOTAL SHEETS 146	SHEET NO. 122
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				



DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

FILE NAME = c:\work\hwy\draw\broak\transport\to\comu\dms\2465\DI62B32-int-xsh-1-Stage1a.dgn



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 (SS) = EX. STORM SEWER  
 (CS) = EX. COMBINED SEWER  
 (○) = PROPOSED STORM SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew.broak	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
ILLINOIS ROUTE 53 STAGE 1A

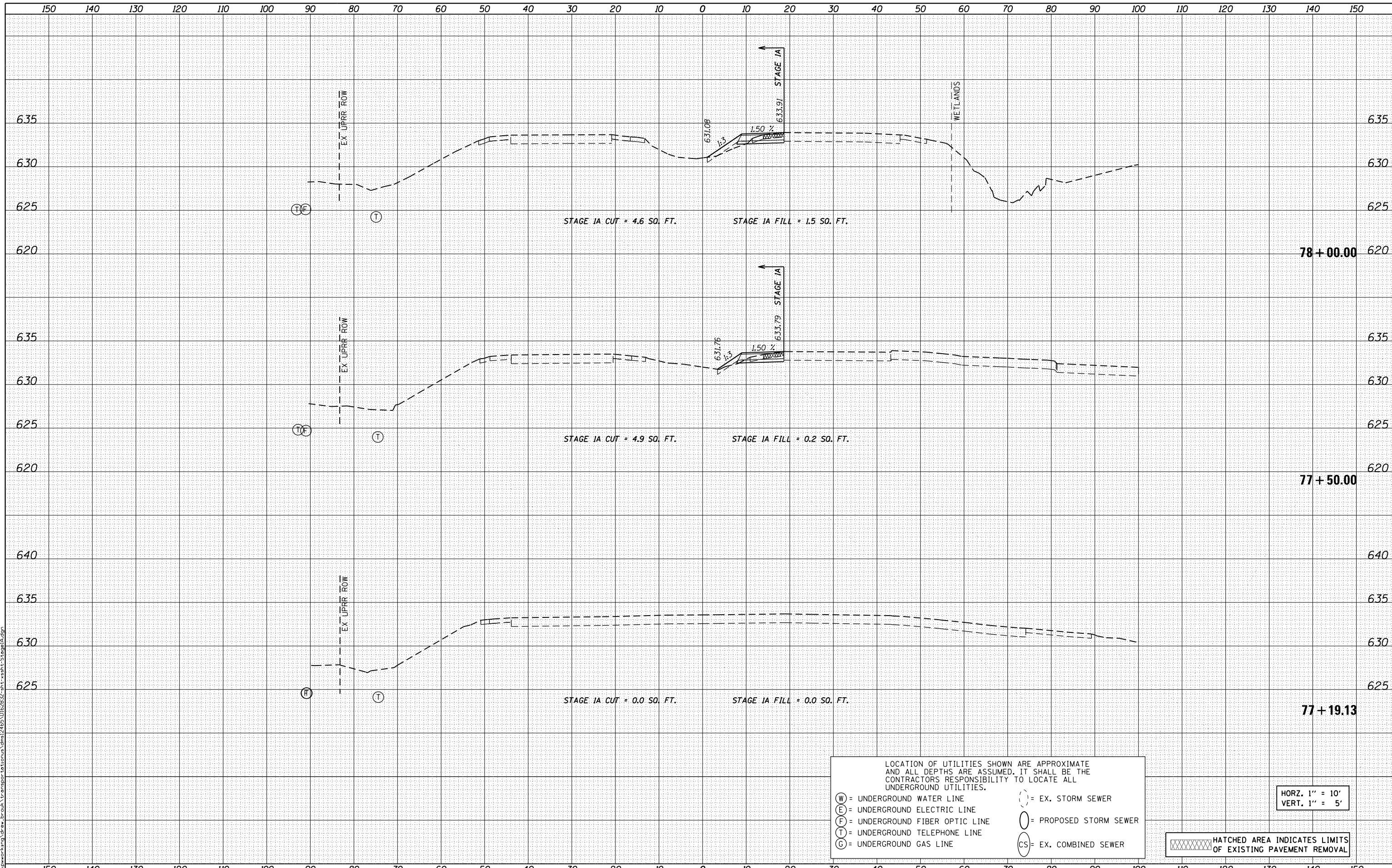
SCALE: 1"=10'H 5'V SHEET 6 OF 11 SHEETS STA. 76+50.00 TO STA. 77+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	123
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NO.	NO.

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NO.	NO.

FILE NAME = c:\working\eng\draw\brouk\transporta\comus.dms\2165\DI\62B32-int-xsh-t-stage1a.dgn



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE

(-) = EX. STORM SEWER  
 (O) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
 VERT. 1" = 5'



USER NAME = drew.brouk	DESIGNED - MTL	REvised -
	DRAWN - DAB	REvised -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REvised -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REvised -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS			
ILLINOIS ROUTE 53 STAGE 1A			
SCALE: 1"=10'H 5'V	SHEET 7 OF 11 SHEETS	STA. 77+19.13 TO STA. 78+00.00	

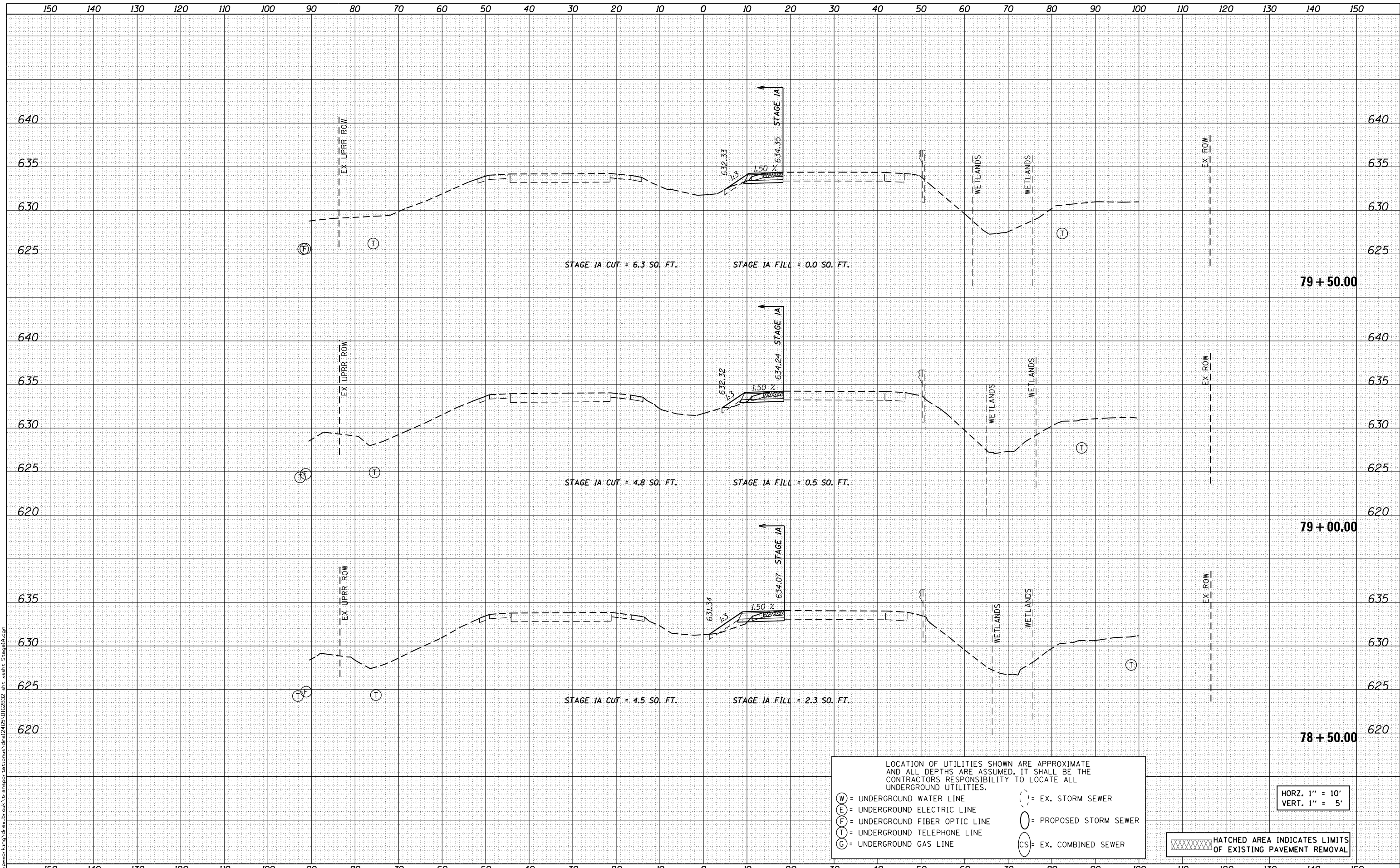
F.A.P. RTE. 846	SECTION DIHSRR2016-01	COUNTY WILL	TOTAL SHEETS 146	SHEET NO. 124
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				



DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

FILE NAME = c:\pwworking\draw\_brouk\transport\to\comus\dem\2465\DI62B32-int-xsh-1-stage1a.dgn



USER NAME = draw_brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS ILLINOIS ROUTE 53 STAGE 1A</b>		
SCALE: 1"=10'H 5'V	SHEET 8 OF 11 SHEETS	STA. 78+50.00 TO STA. 79+50.00

F.A.P. RTE. 846	SECTION DIHSRR2016-01	COUNTY WILL	TOTAL SHEETS 146	SHEET NO. 125
CONTRACT NO. 62B32				
ILLINOIS FED. AID PROJECT				

LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

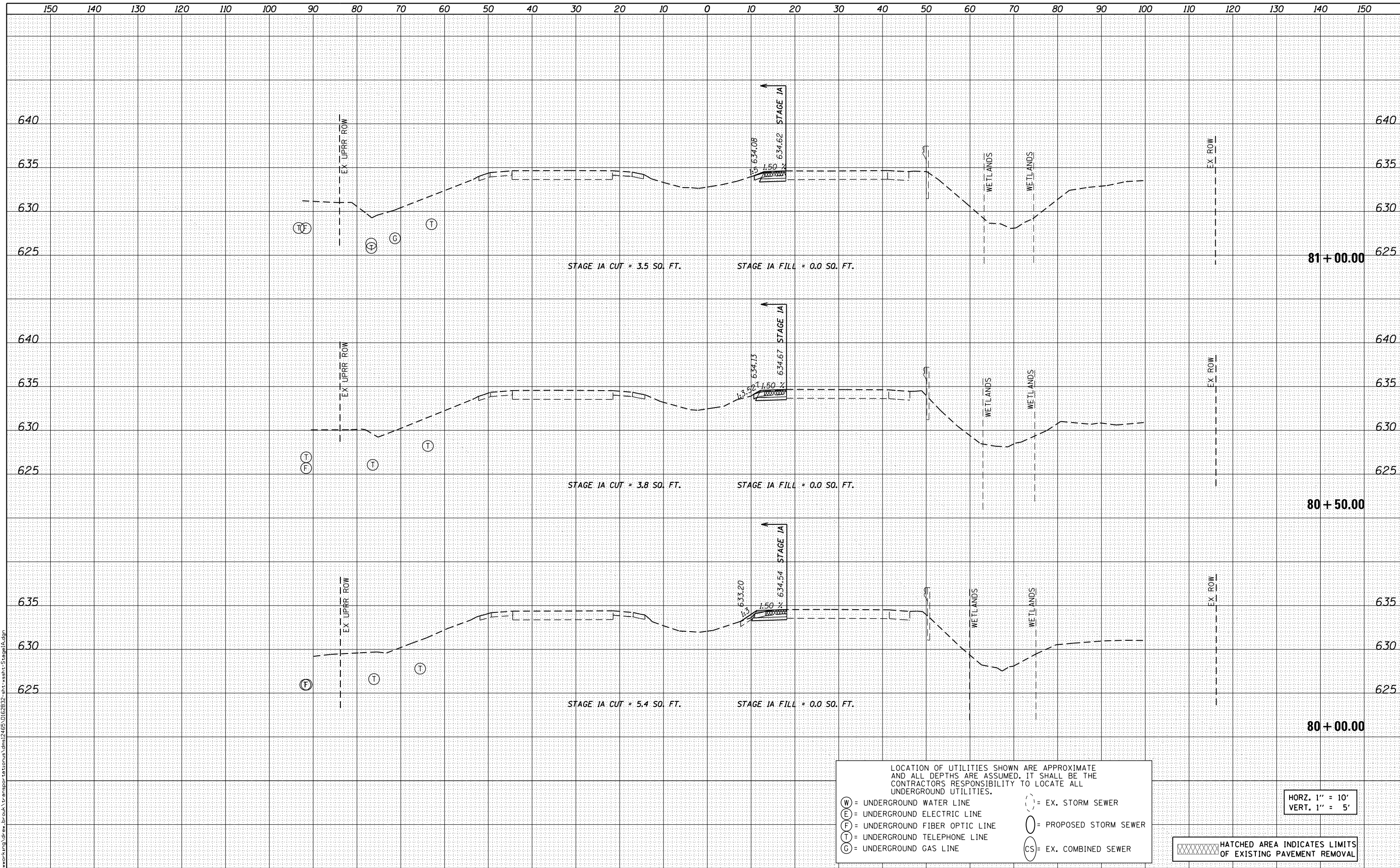
(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 ( ) = EX. STORM SEWER  
 ( ) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 (SS) = EX. STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew\_brouk  
 DESIGNED - MTL  
 DRAWN - DAB  
 CHECKED - JCM  
 DATE - 03/21/2016

REVISIED -  
 REVISIED -  
 REVISIED -  
 REVISIED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
ILLINOIS ROUTE 53 STAGE 1A

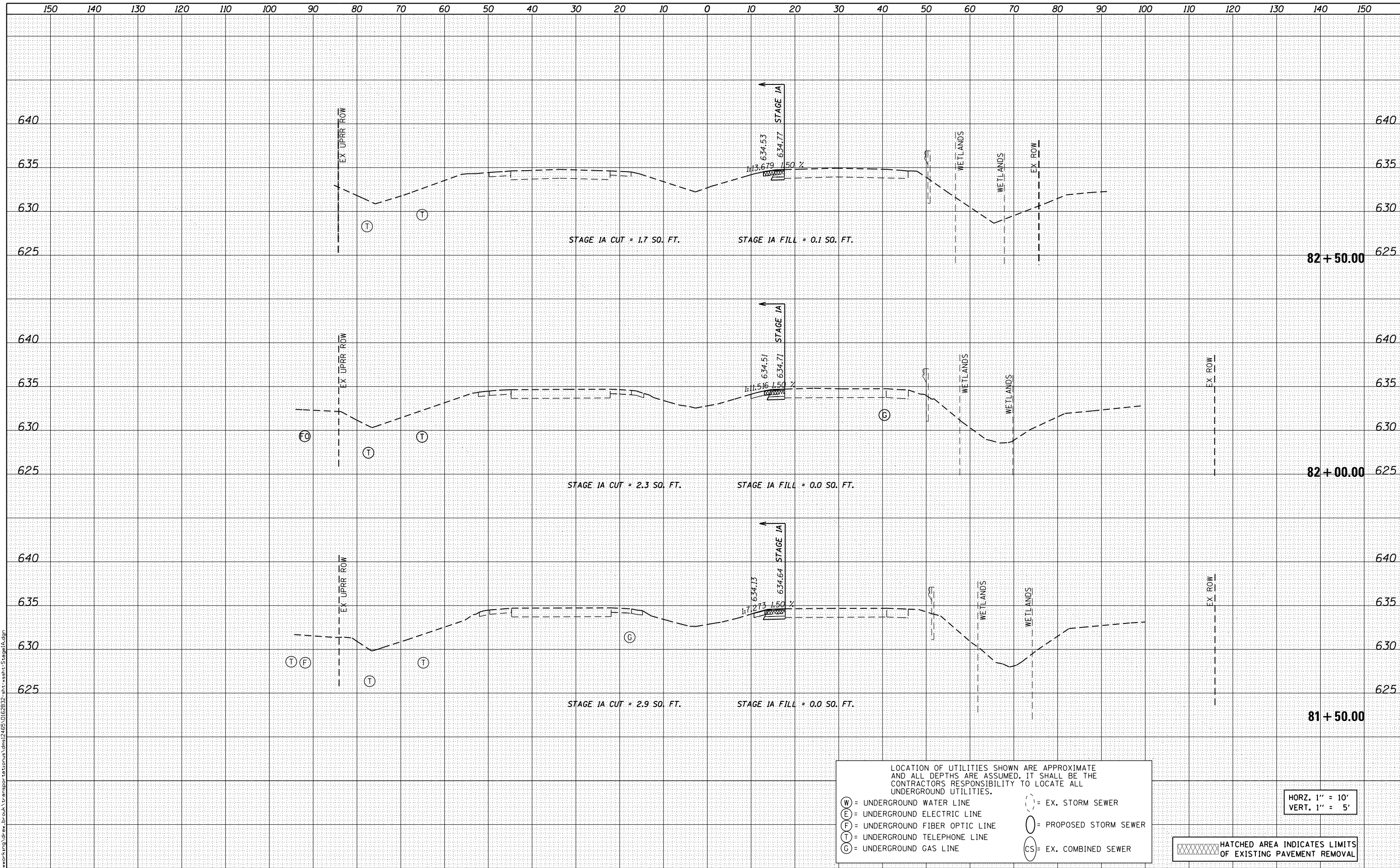
SCALE: 1"=10'H 5'V SHEET 9 OF 11 SHEETS STA. 80+00.00 TO STA. 81+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	126
			CONTRACT NO. 62B32	

ILLINOIS FED. AID PROJECT

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
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TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (G) = UNDERGROUND GAS LINE  
 (SS) = EX. STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew\_brouk  
 DESIGNED - MTL  
 DRAWN - DAB  
 CHECKED - JCM  
 DATE - 03/21/2016

REVISIED -  
 REVISIED -  
 REVISIED -  
 REVISIED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
ILLINOIS ROUTE 53 STAGE 1A

SCALE: 1"=10'H 5'V SHEET 10 OF 11 SHEETS STA. 81+50.00 TO STA. 82+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	127
			CONTRACT NO. 62B32	

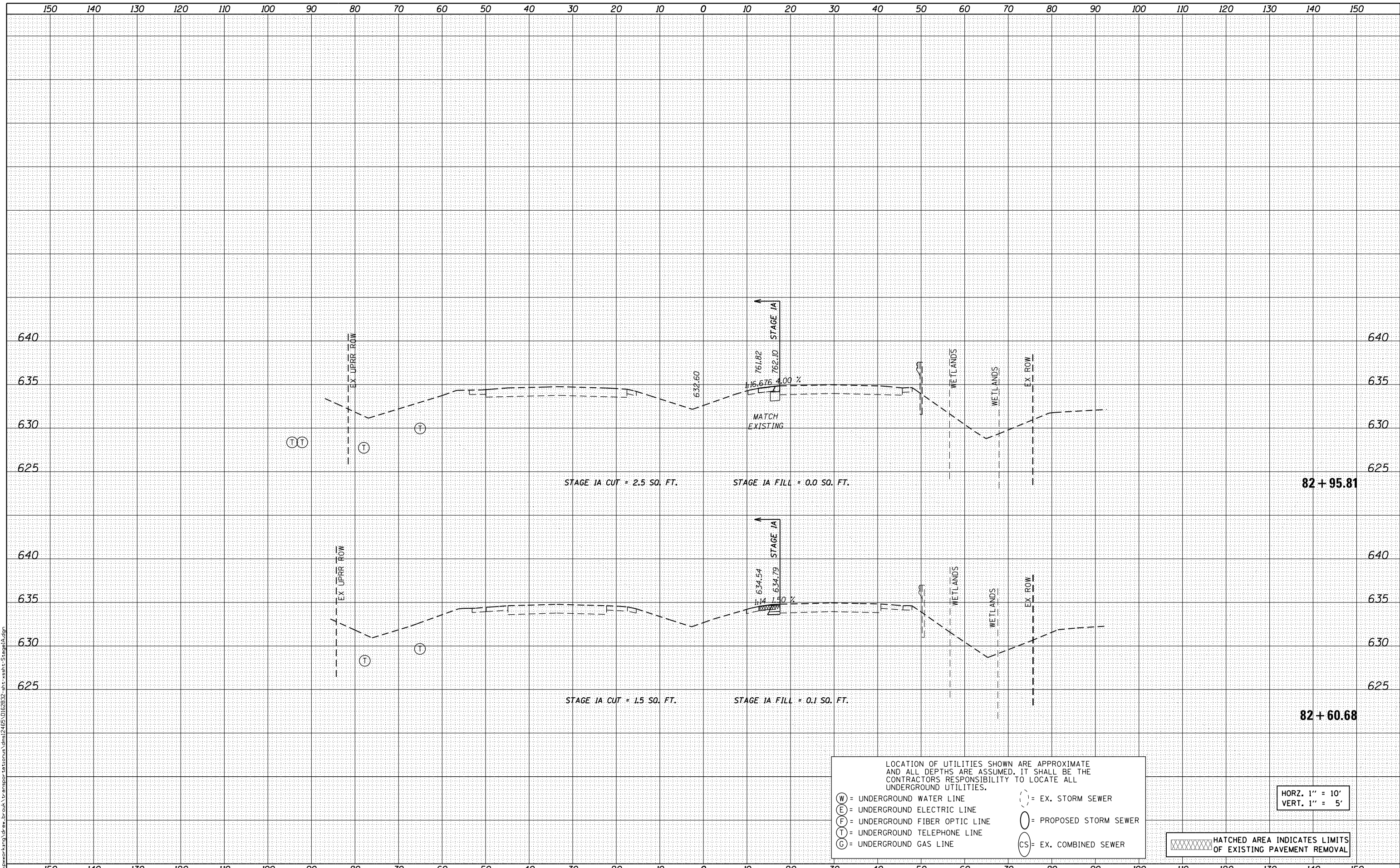
ILLINOIS FED. AID PROJECT



DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

FILE NAME = c:\work\mg\drew\_brouk\transport\to\comus\dem\2465\DI62B32-int-xsh-1-stage1a.dgn



USER NAME = drew_brouk	DESIGNED - MTL	REVISIED -
	DRAWN - DAB	REVISIED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISIED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISIED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS		
ILLINOIS ROUTE 53 STAGE 1A		
SCALE: 1"=10'H 5'V	SHEET 11 OF 11 SHEETS	STA. 82+60.68 TO STA. 83+00.00

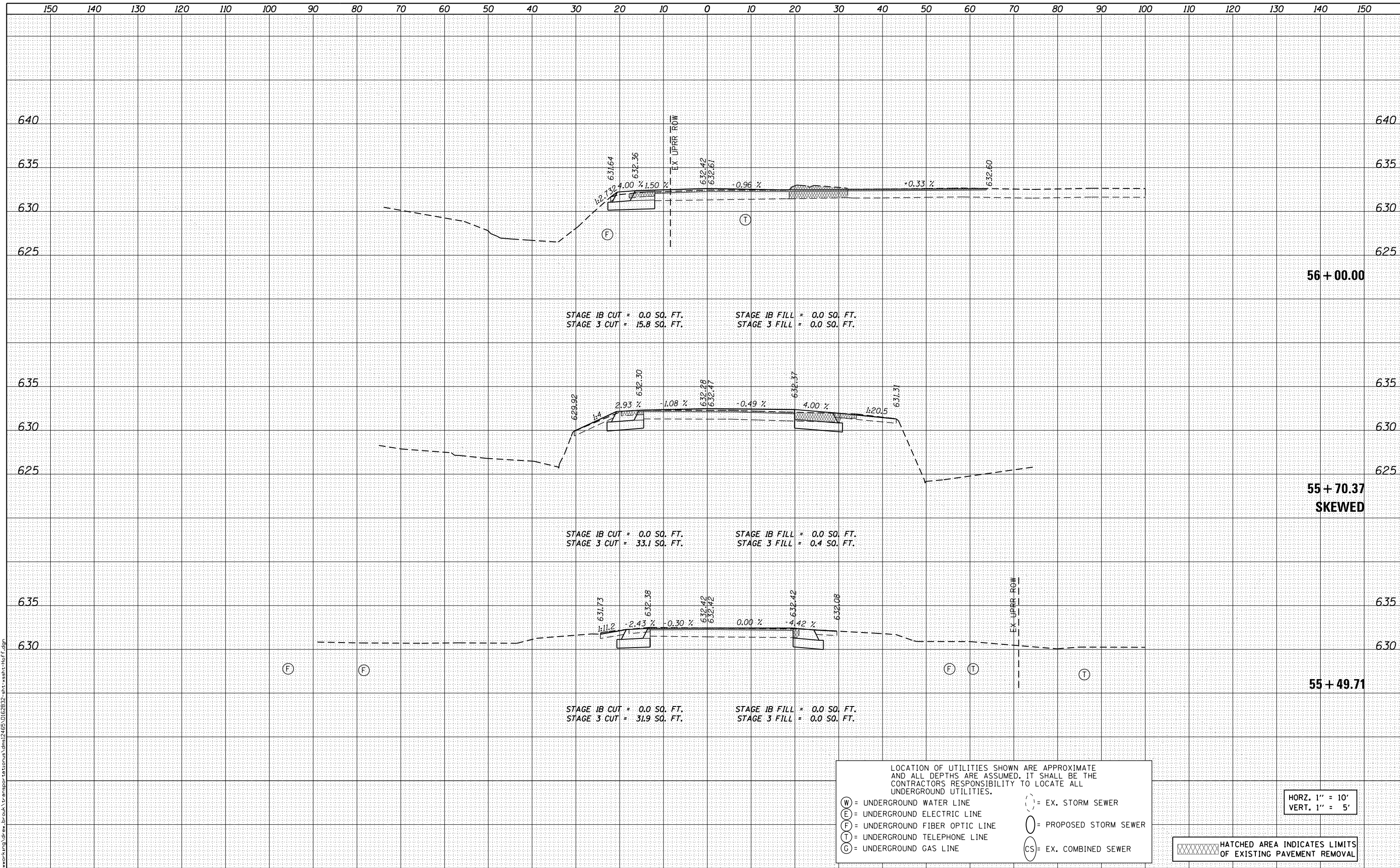
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	128
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				

HORZ. 1" = 10'  
VERT. 1" = 5'

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

DATE	
BY	
FINAL SURVEY	
NOTE BOOK NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE AREAS CHECKED	



STAGE 1B CUT = 0.0 SQ. FT.  
STAGE 3 CUT = 15.8 SQ. FT.  
STAGE 1B FILL = 0.0 SQ. FT.  
STAGE 3 FILL = 0.0 SQ. FT.

STAGE 1B CUT = 0.0 SQ. FT.  
STAGE 3 CUT = 33.1 SQ. FT.  
STAGE 1B FILL = 0.0 SQ. FT.  
STAGE 3 FILL = 0.4 SQ. FT.

STAGE 1B CUT = 0.0 SQ. FT.  
STAGE 3 CUT = 31.9 SQ. FT.  
STAGE 1B FILL = 0.0 SQ. FT.  
STAGE 3 FILL = 0.0 SQ. FT.

LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

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 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 ( ) = EX. STORM SEWER  
 ( ) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew.brouk	DESIGNED - MTL	REVISD -
	DRAWN - DAB	REVISD -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISD -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISD -

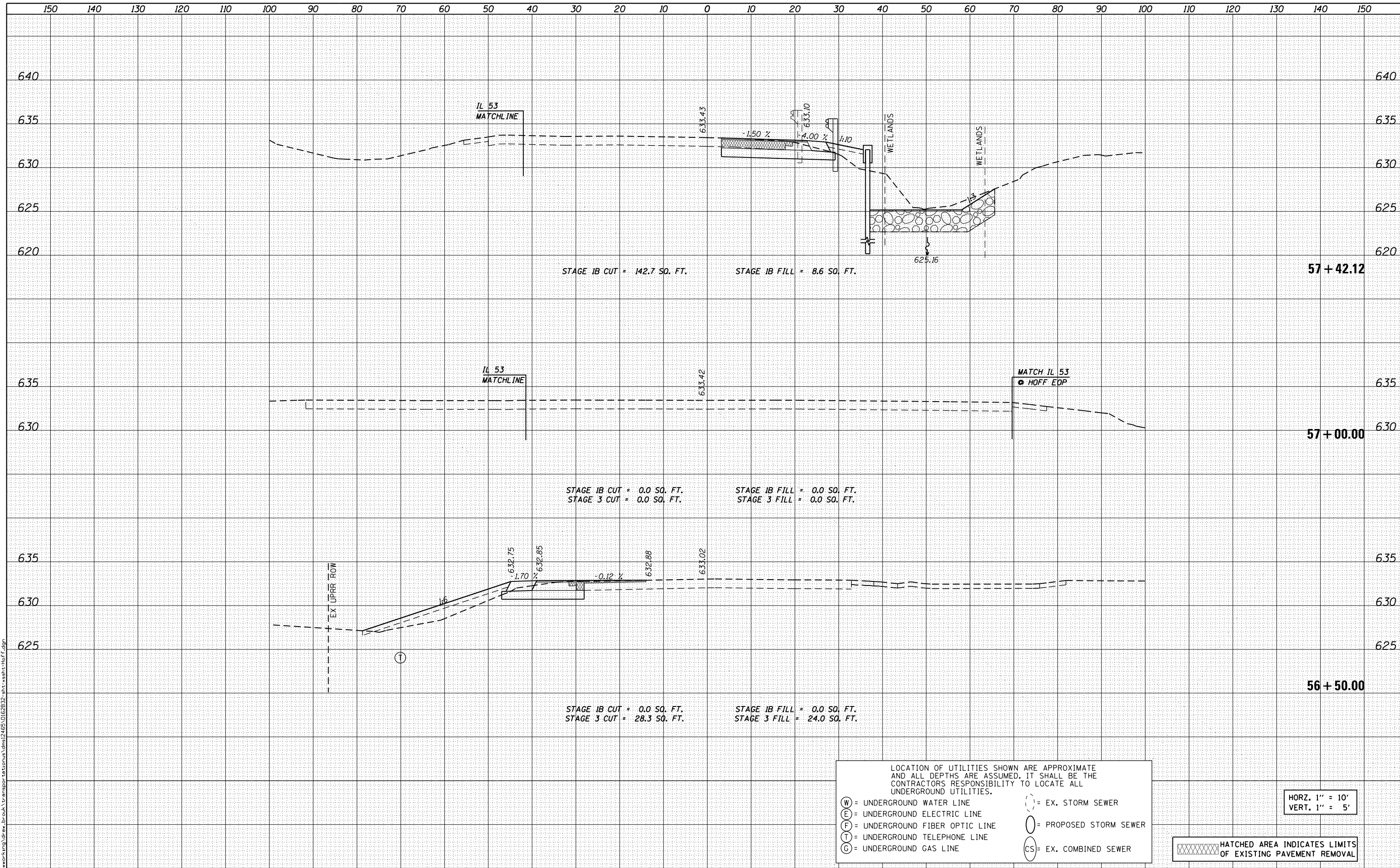
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS	
HOFF ROAD	
SCALE: 1"=10'H 5'V	SHEET 1 OF 7 SHEETS
STA. 55+49.71	TO STA. 56+00.00

F.A.P. RTE. 846	SECTION DIHSRR2016-01	COUNTY WILL	TOTAL SHEETS 146	SHEET NO. 129
CONTRACT NO. 62B32				ILLINOIS FED. AID PROJECT

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



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(F) = UNDERGROUND FIBER OPTIC LINE  
(T) = UNDERGROUND TELEPHONE LINE  
(C) = UNDERGROUND GAS LINE

(S) = EX. STORM SEWER  
(O) = PROPOSED STORM SEWER  
(CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew.brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
HOFF ROAD

SCALE: 1"=10'H 5'V SHEET 2 OF 7 SHEETS STA. 56+50.00 TO STA. 57+42.12

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	130
			CONTRACT NO. 62B32	

ILLINOIS FED. AID PROJECT

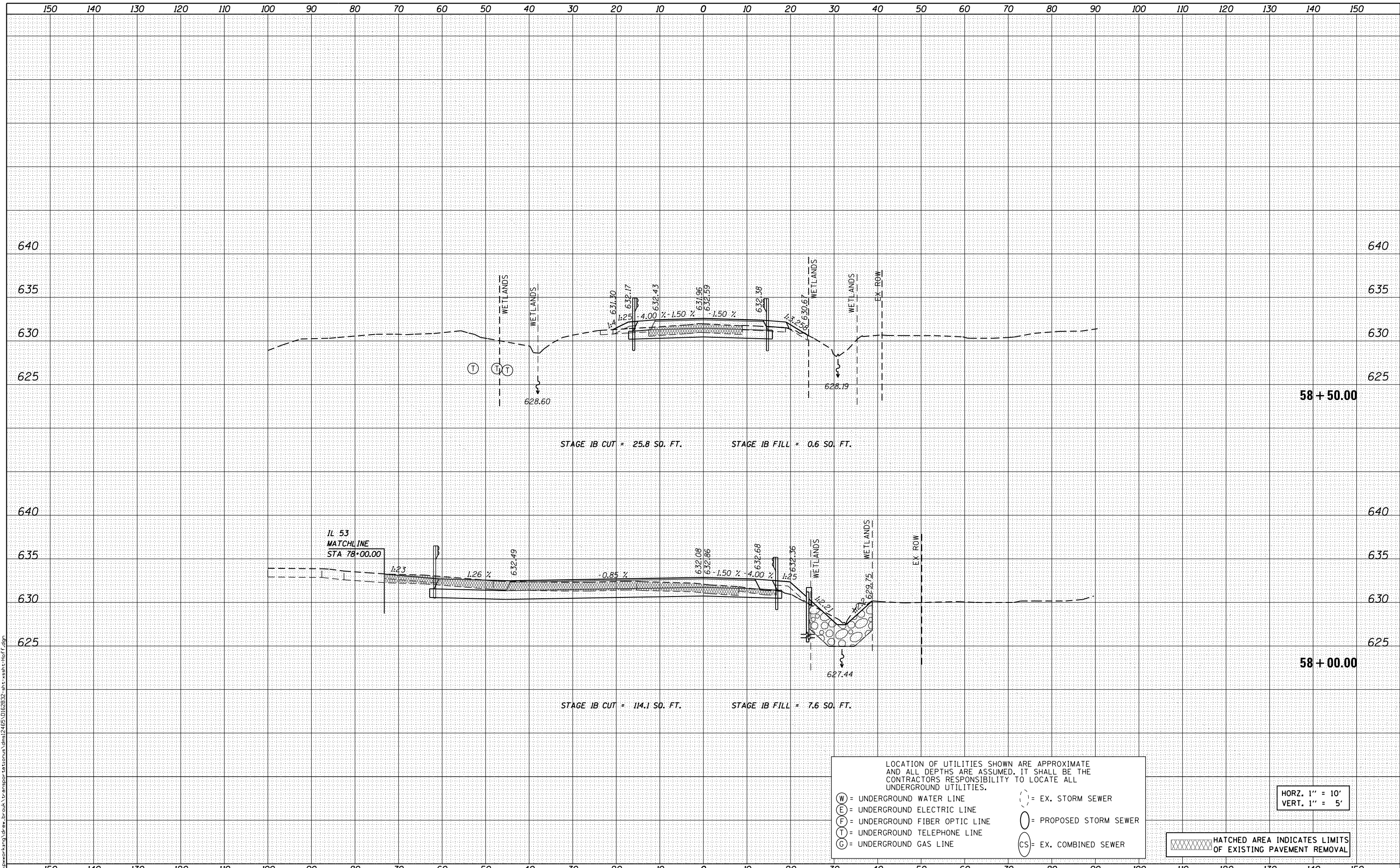




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LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE

(-) = EX. STORM SEWER  
 (O) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
 VERT. 1" = 5'



USER NAME = drew.brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 HOFF ROAD

SCALE: 1"=10'H 5'V SHEET 4 OF 7 SHEETS STA. 58+00.00 TO STA. 58+50.00

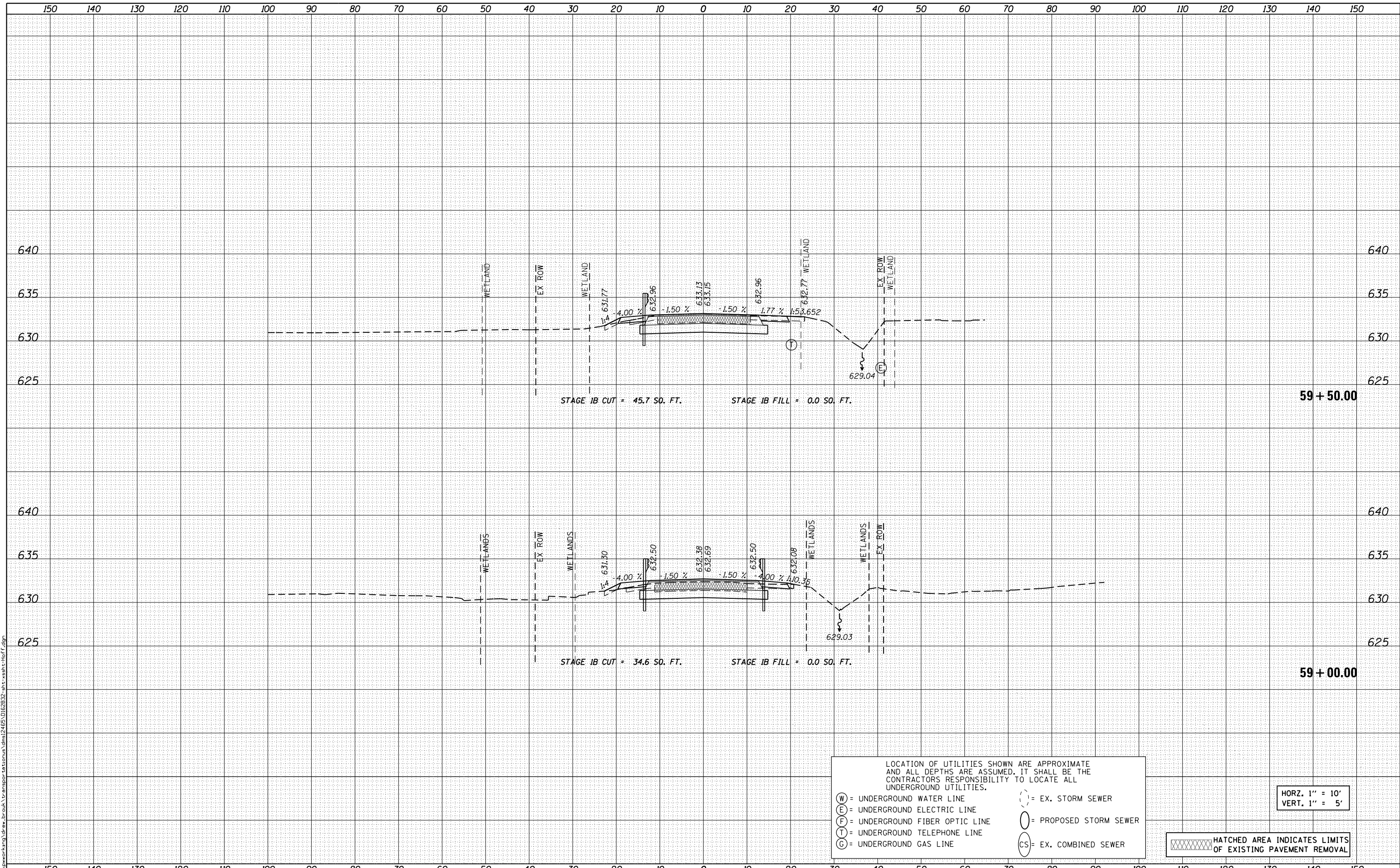
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	132
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				



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FINAL SURVEY	SURVEYED
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	AREAS CHECKED

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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

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LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 ( ) = EX. STORM SEWER  
 ( ) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew_brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
HOFF ROAD

SCALE: 1"=10'H 5'V SHEET 5 OF 7 SHEETS STA. 59+00.00 TO STA. 59+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	133
			CONTRACT NO. 62B32	

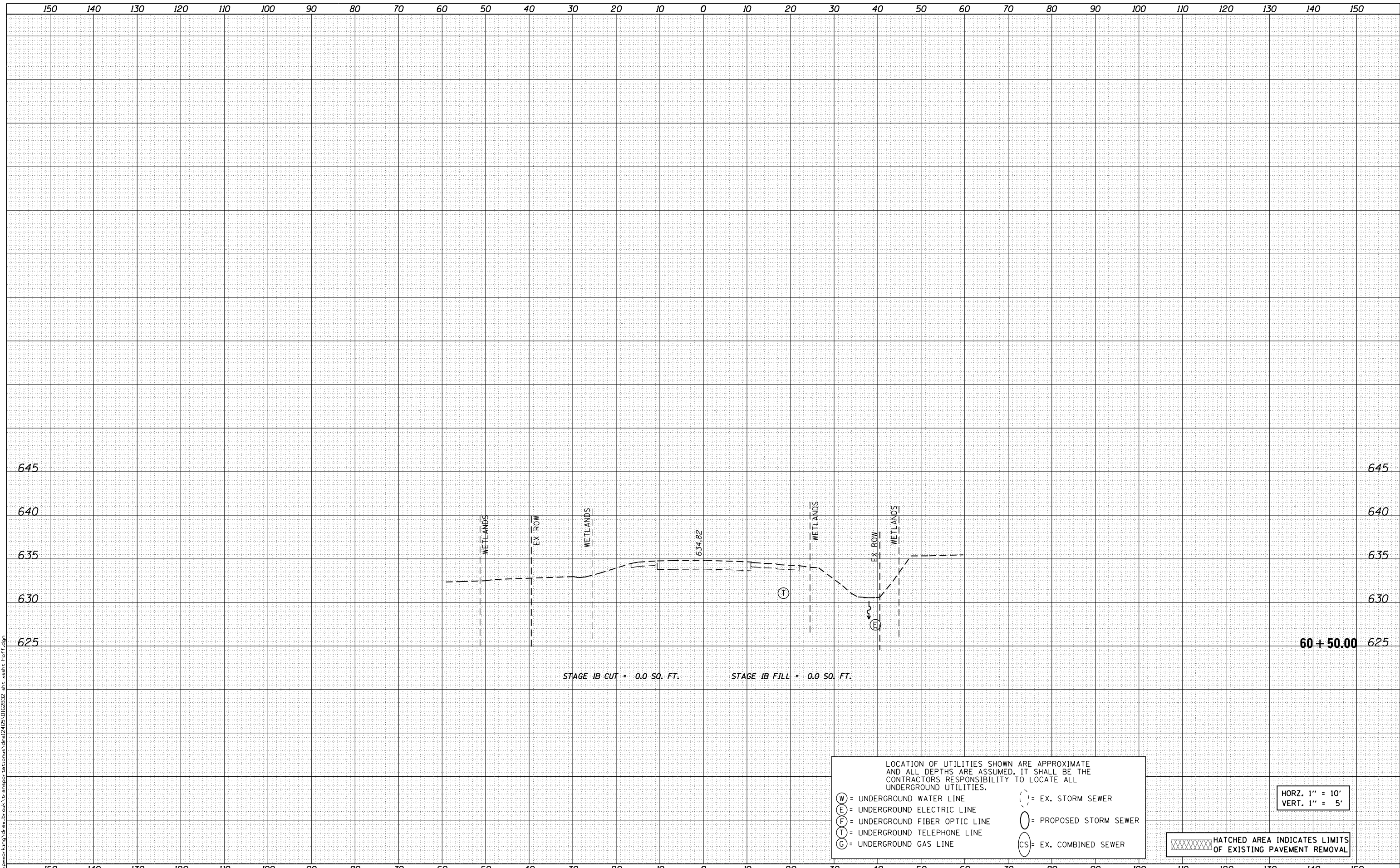
ILLINOIS FED. AID PROJECT



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FINAL SURVEY NO.	
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SURVEYED PLOTTED AREAS CHECKED	
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LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (G) = UNDERGROUND GAS LINE  
 ( ) = EX. STORM SEWER  
 ( ) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
VERT. 1" = 5'



USER NAME = drew.brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
HOFF ROAD

SCALE: 1"=10'H 5'V SHEET 7 OF 7 SHEETS STA. 60+50.00 TO STA. 60+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	135
CONTRACT NO. 62B32				

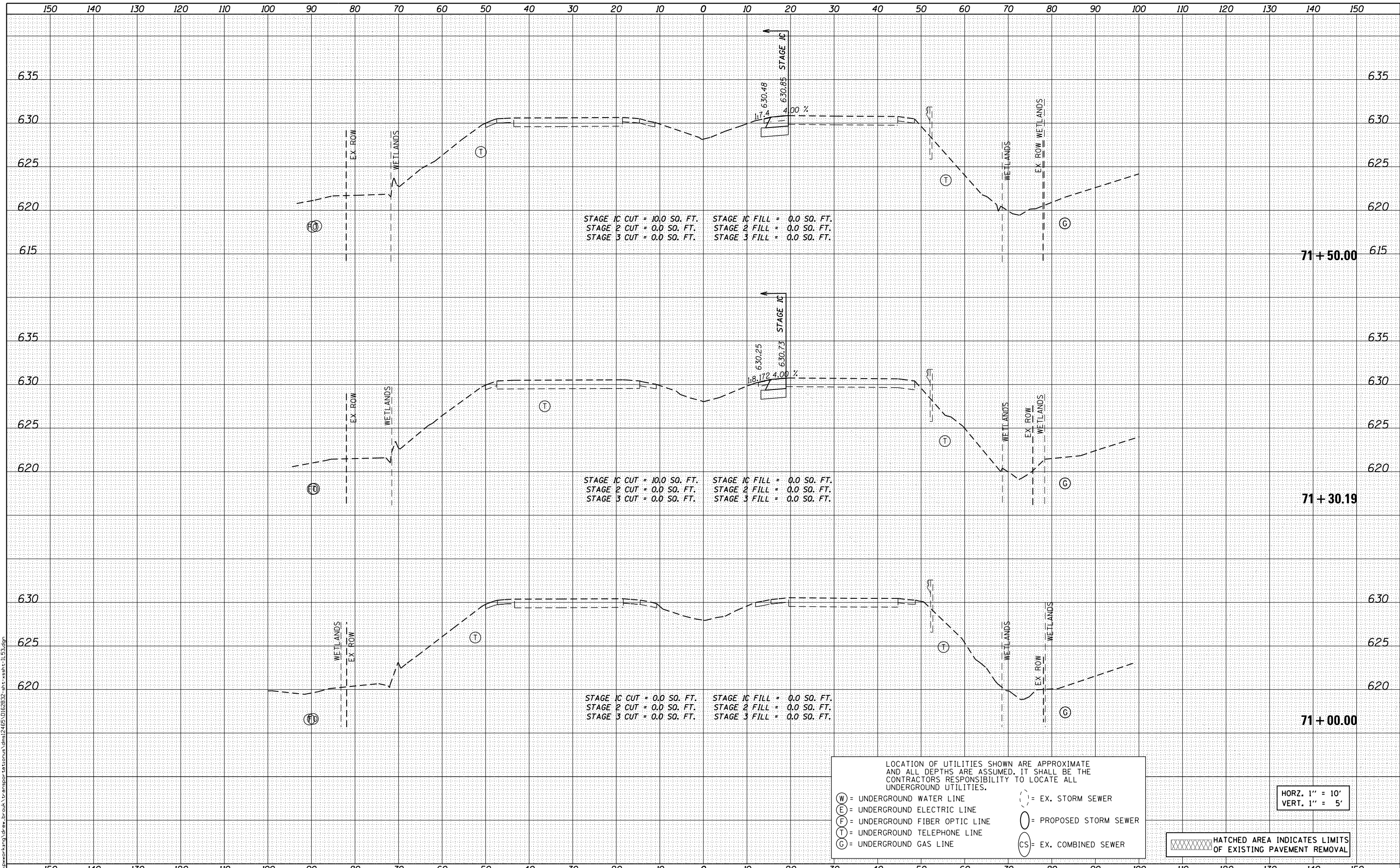
ILLINOIS FED. AID PROJECT



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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 (S) = EX. STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
 VERT. 1" = 5'



USER NAME = drew.brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 ILLINOIS ROUTE 53**

SCALE: 1"=10'H 5'V SHEET 1 OF 11 SHEETS STA. 70+00.00 TO STA. 71+50.00

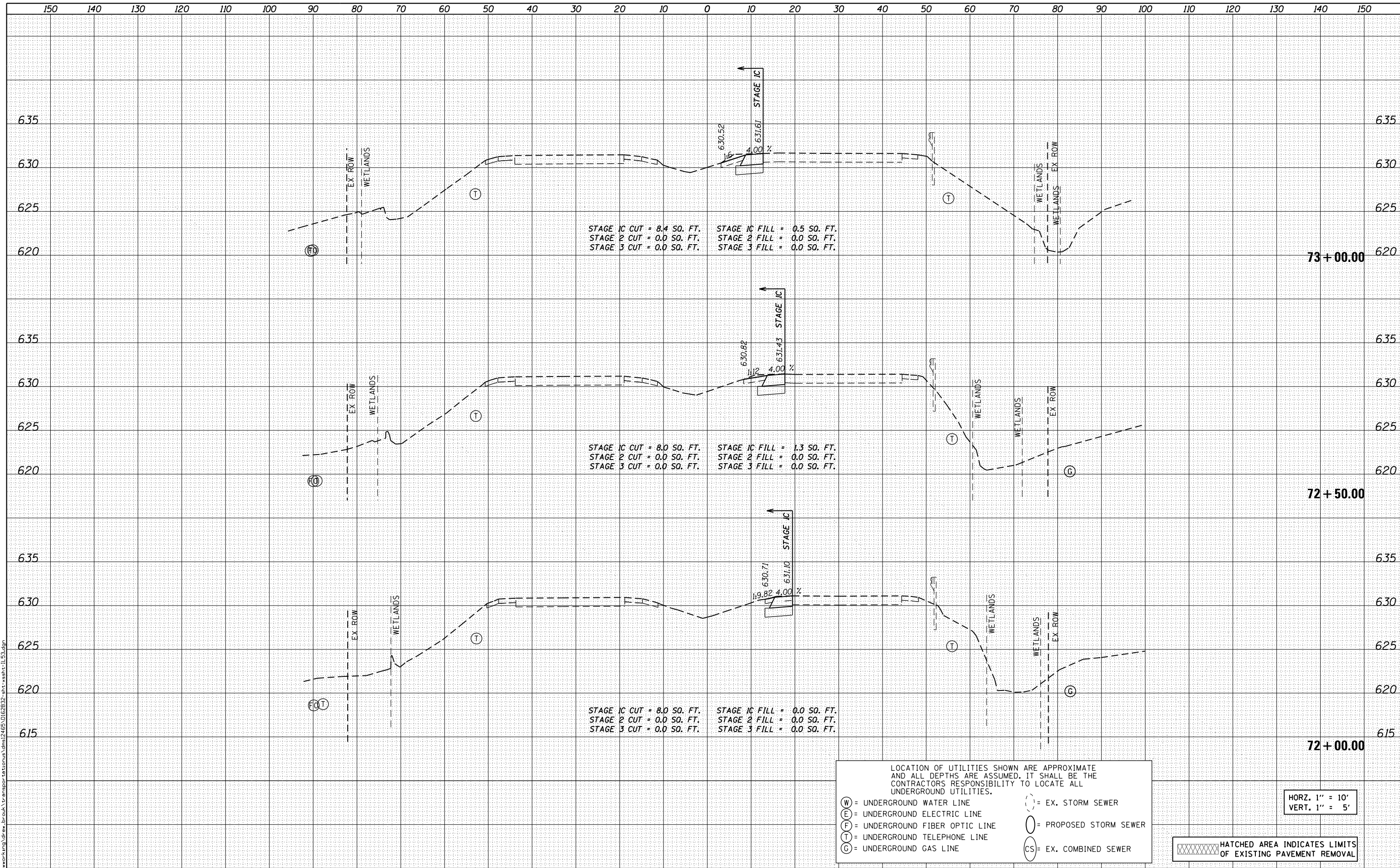
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	136
			CONTRACT NO. 62B32	

ILLINOIS FED. AID PROJECT

DATE	
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ORIGINAL SURVEY	
SURVEY PLOTTED	
NOTE BOOK	
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FILE NAME = c:\working\mg\drew\_brouk\transport\to\lanus\dem\2465\DI62B32-ht-xsh-t-1153.dgn



LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE  
 ( ) = EX. STORM SEWER  
 ( ) = PROPOSED STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
 VERT. 1" = 5'



USER NAME = drew_brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 ILLINOIS ROUTE 53

SCALE: 1"=10'H 5'V SHEET 2 OF 11 SHEETS STA. 72+00.00 TO STA. 73+00.00

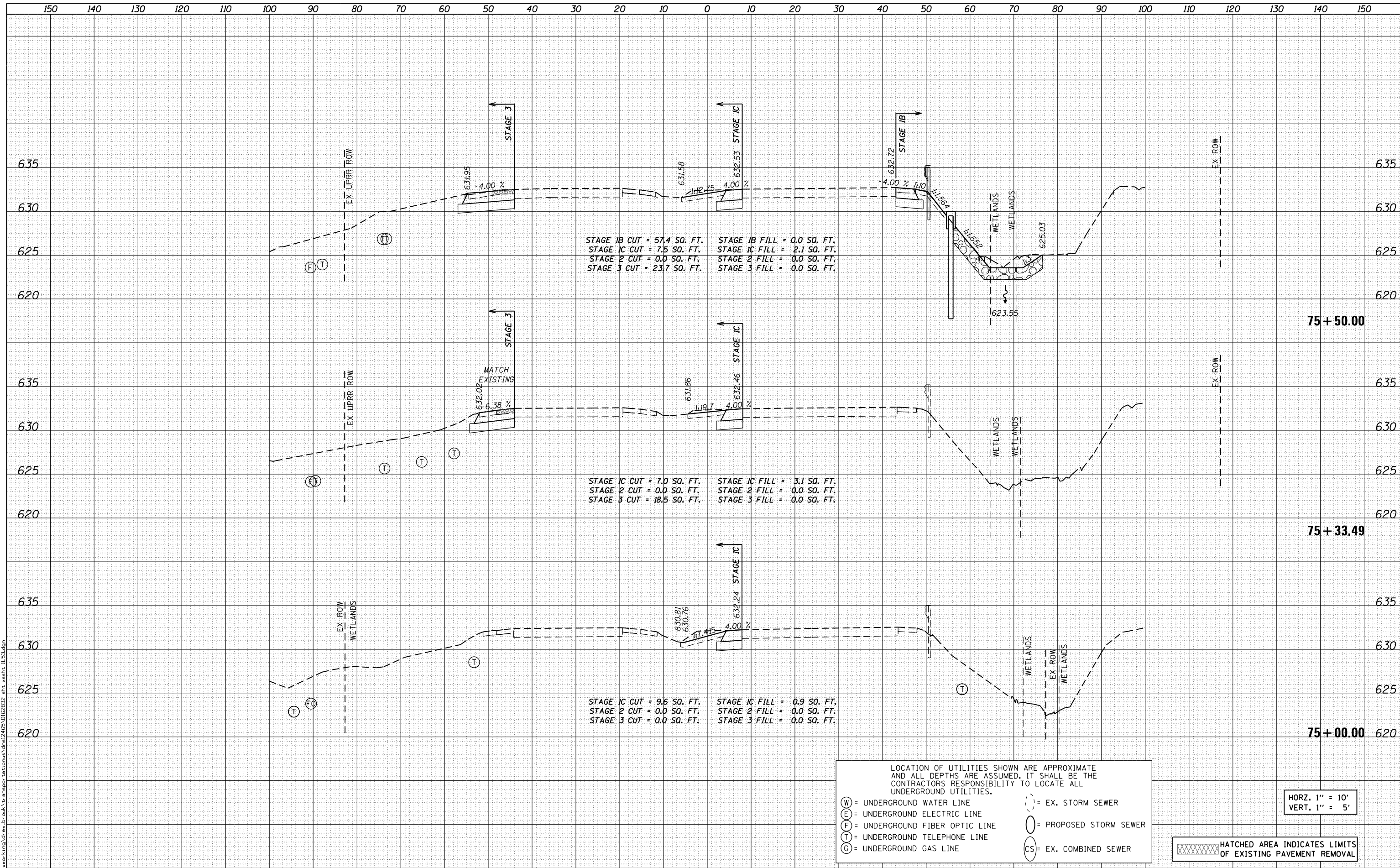
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	137
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				





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SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
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STAGE 1B CUT = 57.4 SQ. FT. STAGE 1B FILL = 0.0 SQ. FT.  
 STAGE 1C CUT = 7.5 SQ. FT. STAGE 1C FILL = 2.1 SQ. FT.  
 STAGE 2 CUT = 0.0 SQ. FT. STAGE 2 FILL = 0.0 SQ. FT.  
 STAGE 3 CUT = 23.7 SQ. FT. STAGE 3 FILL = 0.0 SQ. FT.

STAGE 1C CUT = 7.0 SQ. FT. STAGE 1C FILL = 3.1 SQ. FT.  
 STAGE 2 CUT = 0.0 SQ. FT. STAGE 2 FILL = 0.0 SQ. FT.  
 STAGE 3 CUT = 18.5 SQ. FT. STAGE 3 FILL = 0.0 SQ. FT.

STAGE 1C CUT = 9.6 SQ. FT. STAGE 1C FILL = 0.9 SQ. FT.  
 STAGE 2 CUT = 0.0 SQ. FT. STAGE 2 FILL = 0.0 SQ. FT.  
 STAGE 3 CUT = 0.0 SQ. FT. STAGE 3 FILL = 0.0 SQ. FT.

LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE (S) = EX. STORM SEWER  
 (E) = UNDERGROUND ELECTRIC LINE (O) = PROPOSED STORM SEWER  
 (F) = UNDERGROUND FIBER OPTIC LINE (CS) = EX. COMBINED SEWER  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
 VERT. 1" = 5'



USER NAME = drew.brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
	CHECKED - JCM	REVISED -
	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

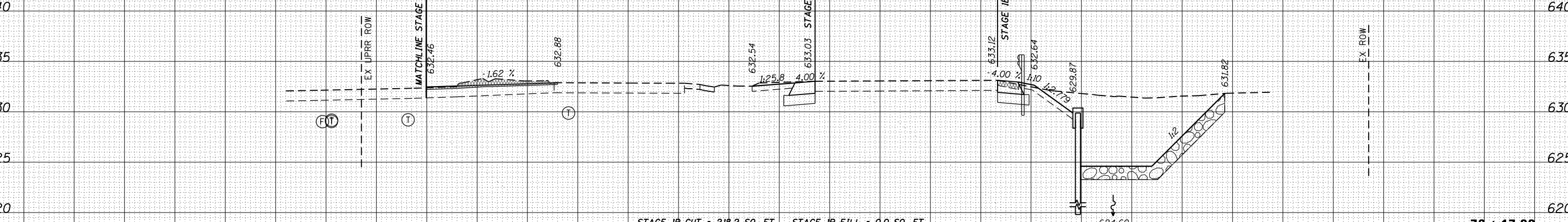
CROSS SECTIONS  
 ILLINOIS ROUTE 53

SCALE: 1"=10'H 5'V SHEET 4 OF 11 SHEETS STA. 75+00.00 TO STA. 75+50.00

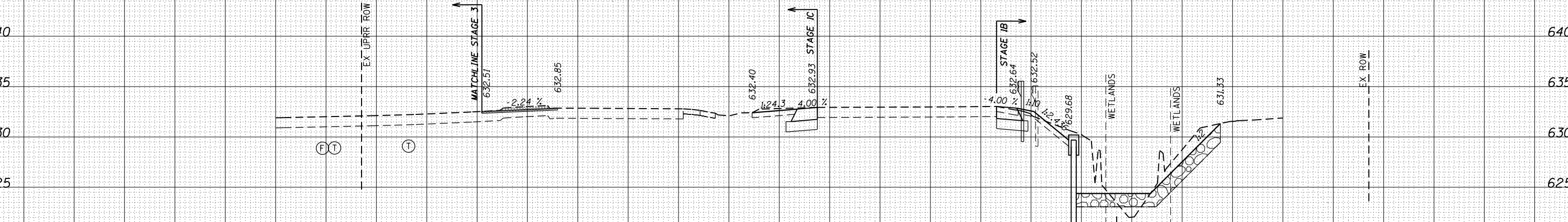
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	139
			CONTRACT NO. 62B32	

ILLINOIS FED. AID PROJECT

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



STAGE 1B CUT = 218.2 SO. FT. STAGE 1B FILL = 0.0 SO. FT.  
 STAGE 1C CUT = 7.3 SO. FT. STAGE 1C FILL = 3.4 SO. FT.  
 STAGE 2 CUT = 0.0 SO. FT. STAGE 2 FILL = 0.0 SO. FT.  
 STAGE 3 CUT = 0.0 SO. FT. STAGE 3 FILL = 0.0 SO. FT.



STAGE 1B CUT = 94.3 SO. FT. STAGE 1B FILL = 2.7 SO. FT.  
 STAGE 1C CUT = 7.3 SO. FT. STAGE 1C FILL = 3.4 SO. FT.  
 STAGE 2 CUT = 0.0 SO. FT. STAGE 2 FILL = 0.0 SO. FT.  
 STAGE 3 CUT = 0.0 SO. FT. STAGE 3 FILL = 0.0 SO. FT.

- LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.
- (W) = UNDERGROUND WATER LINE
  - (E) = UNDERGROUND ELECTRIC LINE
  - (F) = UNDERGROUND FIBER OPTIC LINE
  - (T) = UNDERGROUND TELEPHONE LINE
  - (C) = UNDERGROUND GAS LINE
  - ⊖ = EX. STORM SEWER
  - ⊕ = PROPOSED STORM SEWER
  - CS = EX. COMBINED SEWER

HORZ. 1" = 10'  
 VERT. 1" = 5'

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

DATE	
BY	
FINISHED SURVEY	
SURVEY PLOTTED	
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ORIGINAL SURVEY	
NOTE BOOK	
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USER NAME = drew\_brouk  
 PLOT SCALE = 20.0000' / in.  
 PLOT DATE = 3/21/2016

DESIGNED	- MTL	REVISED	-
DRAWN	- DAB	REVISED	-
CHECKED	- JCM	REVISED	-
DATE	- 03/21/2016	REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 ILLINOIS ROUTE 53**  
 SCALE: 1"=10'H 5'V SHEET 5 OF 11 SHEETS STA. 76+00.00 TO STA. 76+17.22

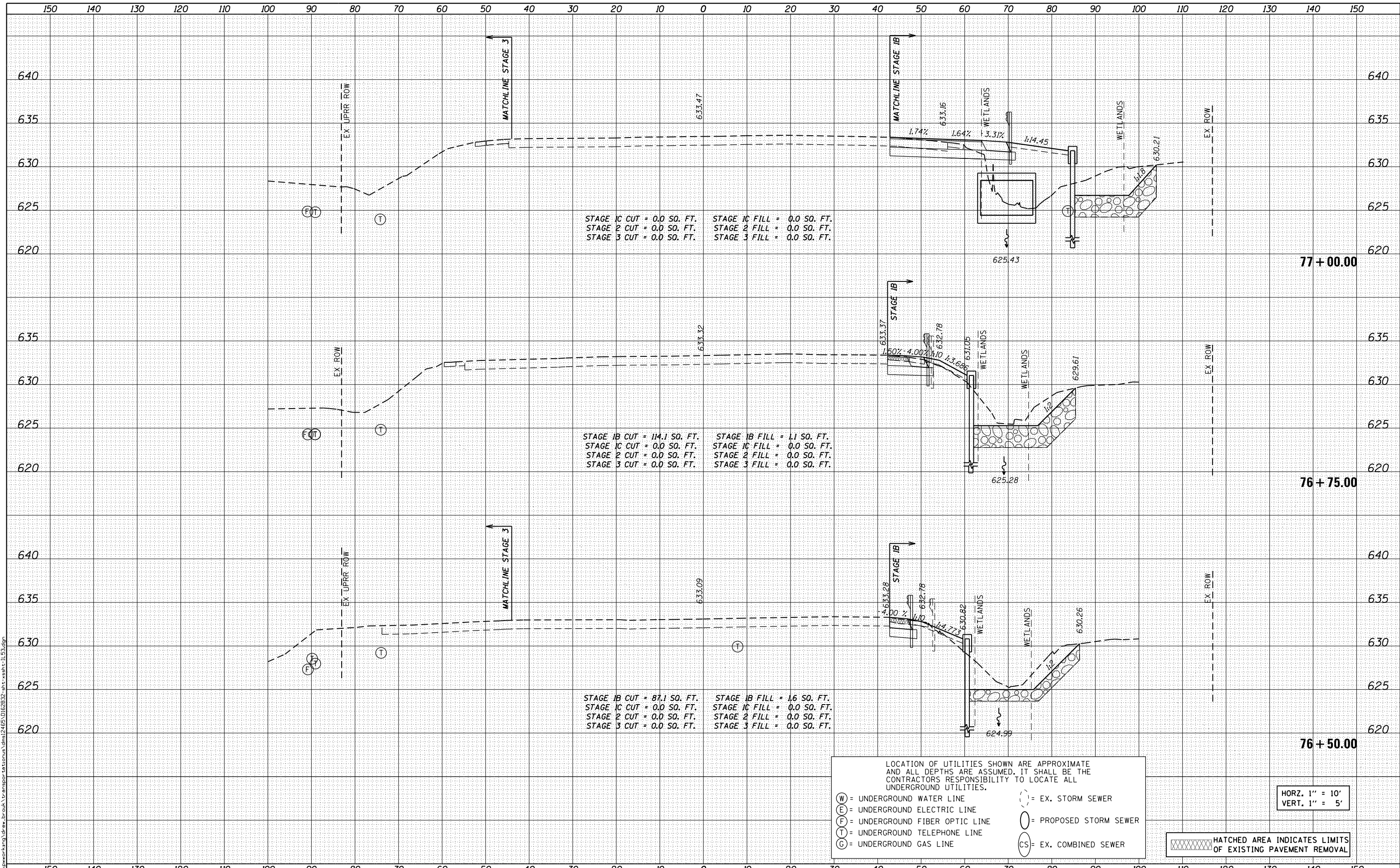
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	140
				CONTRACT NO. 62B32
ILLINOIS FED. AID PROJECT				



DATE	
BY	
ORIGINAL SURVEY	
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STAGE 1C CUT = 0.0 SO. FT. STAGE 1C FILL = 0.0 SO. FT.  
 STAGE 2 CUT = 0.0 SO. FT. STAGE 2 FILL = 0.0 SO. FT.  
 STAGE 3 CUT = 0.0 SO. FT. STAGE 3 FILL = 0.0 SO. FT.

STAGE 1B CUT = 114.1 SO. FT. STAGE 1B FILL = 1.1 SO. FT.  
 STAGE 1C CUT = 0.0 SO. FT. STAGE 1C FILL = 0.0 SO. FT.  
 STAGE 2 CUT = 0.0 SO. FT. STAGE 2 FILL = 0.0 SO. FT.  
 STAGE 3 CUT = 0.0 SO. FT. STAGE 3 FILL = 0.0 SO. FT.

STAGE 1B CUT = 87.1 SO. FT. STAGE 1B FILL = 1.6 SO. FT.  
 STAGE 1C CUT = 0.0 SO. FT. STAGE 1C FILL = 0.0 SO. FT.  
 STAGE 2 CUT = 0.0 SO. FT. STAGE 2 FILL = 0.0 SO. FT.  
 STAGE 3 CUT = 0.0 SO. FT. STAGE 3 FILL = 0.0 SO. FT.

LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE (S) = EX. STORM SEWER  
 (E) = UNDERGROUND ELECTRIC LINE (E) = PROPOSED STORM SEWER  
 (F) = UNDERGROUND FIBER OPTIC LINE (CS) = EX. COMBINED SEWER  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
 VERT. 1" = 5'



USER NAME = drew.broak	DESIGNED - MTL	REVISIED -
	DRAWN - DAB	REVISIED -
	CHECKED - JCM	REVISIED -
	DATE - 03/21/2016	REVISIED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 ILLINOIS ROUTE 53

SCALE: 1"=10'H 5'V SHEET 6 OF 11 SHEETS STA. 76+50.00 TO STA. 77+00.00

F.A.P. RTE. 846	SECTION DIHSRR2016-01	COUNTY WILL	TOTAL SHEETS 146	SHEET NO. 141
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				

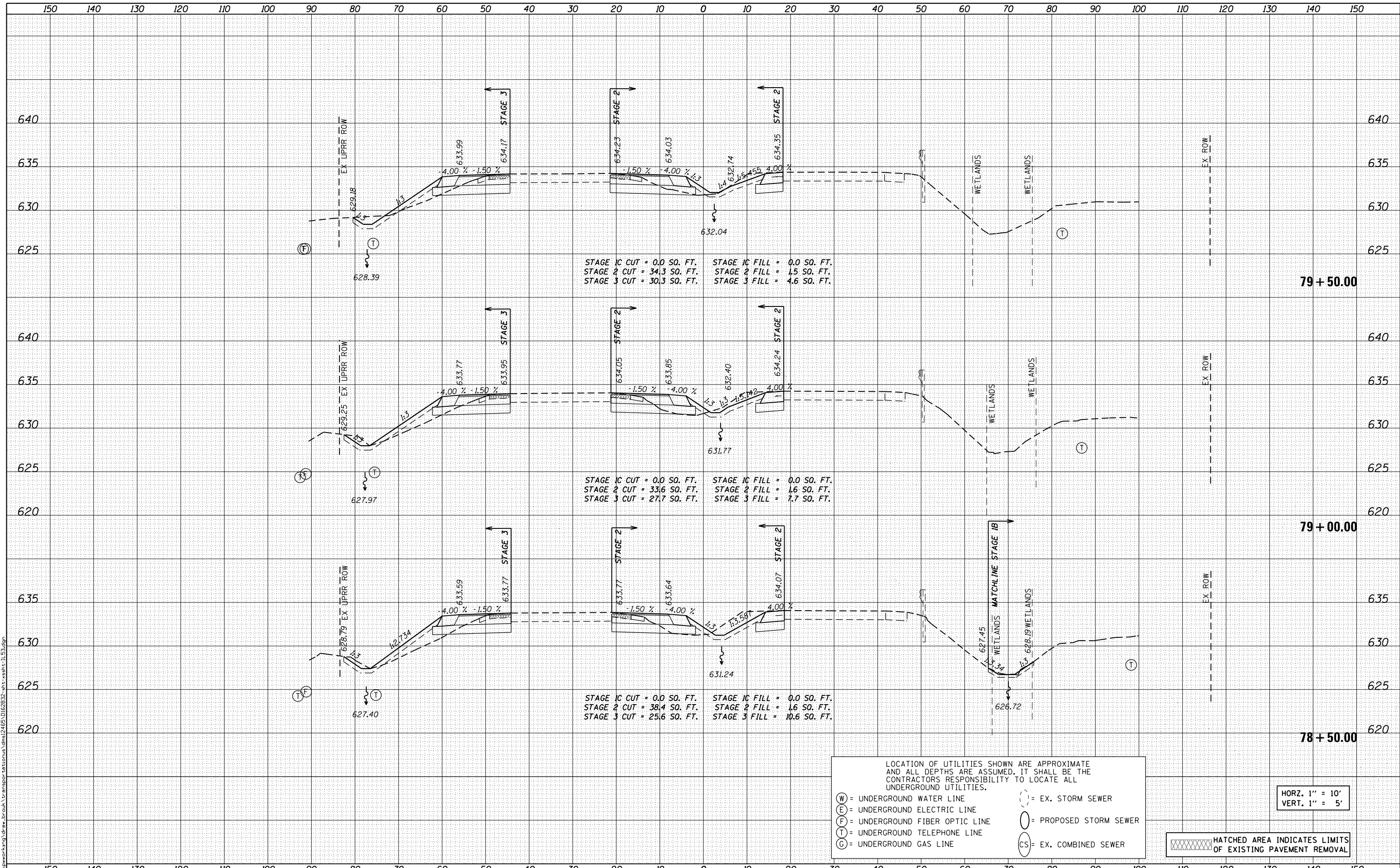




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NOTE BOOK	
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USER NAME = drew.brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 ILLINOIS ROUTE 53

SCALE: 1"=10'H 5'V SHEET 8 OF 11 SHEETS STA. 78+50.00 TO STA. 79+50.00

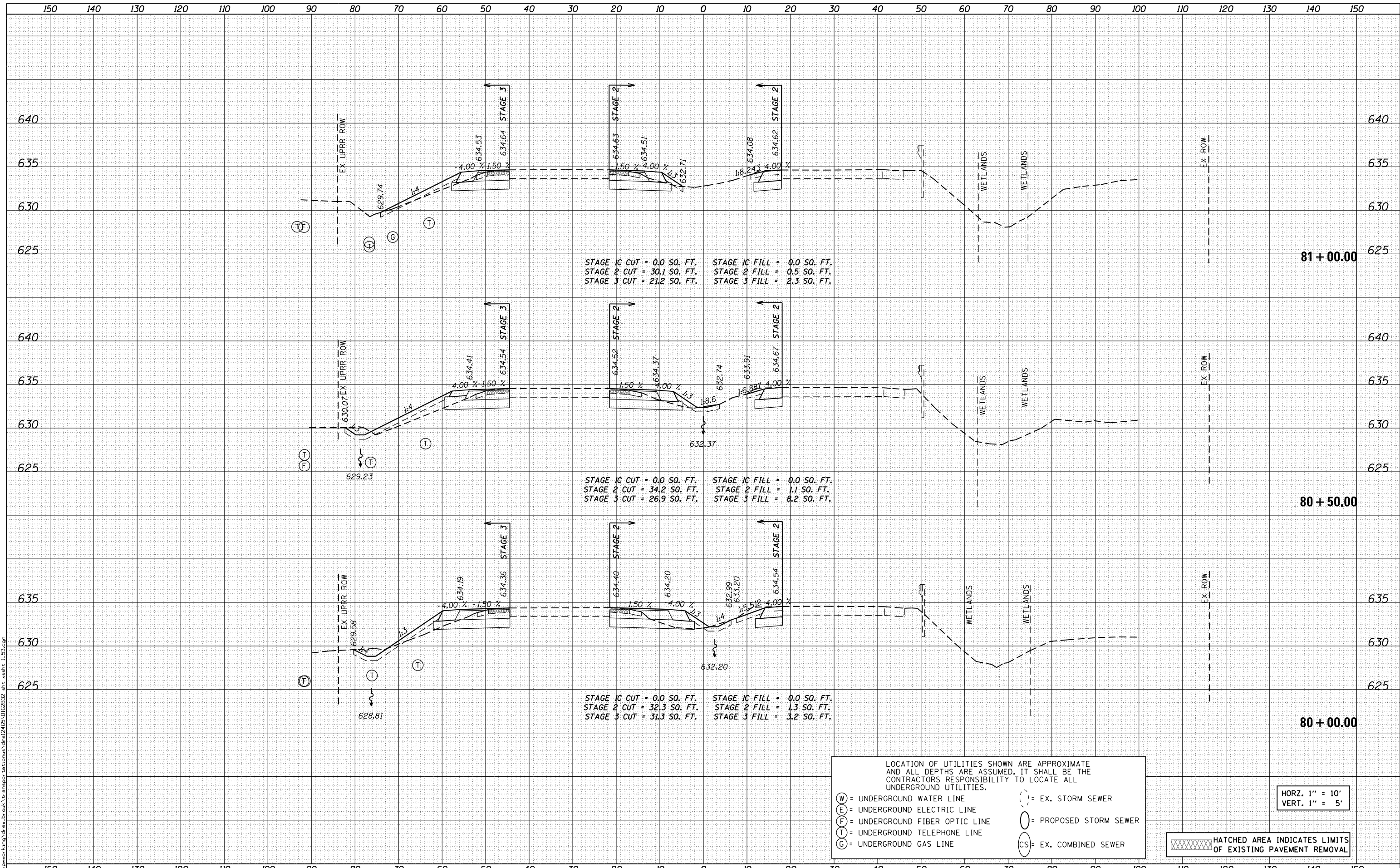
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	143
			CONTRACT NO. 62B32	

ILLINOIS FED. AID PROJECT

DATE	
BY	
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NOTE BOOK	
AREAS CHECKED	
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NOTE BOOK	
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STAGE 1C CUT = 0.0 SQ. FT. STAGE 1C FILL = 0.0 SQ. FT.  
 STAGE 2 CUT = 30.1 SQ. FT. STAGE 2 FILL = 0.5 SQ. FT.  
 STAGE 3 CUT = 21.2 SQ. FT. STAGE 3 FILL = 2.3 SQ. FT.

STAGE 1C CUT = 0.0 SQ. FT. STAGE 1C FILL = 0.0 SQ. FT.  
 STAGE 2 CUT = 34.2 SQ. FT. STAGE 2 FILL = 1.1 SQ. FT.  
 STAGE 3 CUT = 26.9 SQ. FT. STAGE 3 FILL = 8.2 SQ. FT.

STAGE 1C CUT = 0.0 SQ. FT. STAGE 1C FILL = 0.0 SQ. FT.  
 STAGE 2 CUT = 32.3 SQ. FT. STAGE 2 FILL = 1.3 SQ. FT.  
 STAGE 3 CUT = 31.3 SQ. FT. STAGE 3 FILL = 3.2 SQ. FT.

LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE (S) = EX. STORM SEWER  
 (E) = UNDERGROUND ELECTRIC LINE (E) = PROPOSED STORM SEWER  
 (F) = UNDERGROUND FIBER OPTIC LINE (CS) = EX. COMBINED SEWER  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
 VERT. 1" = 5'



USER NAME = drew.brouk  
 DESIGNED - MTL  
 DRAWN - DAB  
 CHECKED - JCM  
 DATE - 03/21/2016

REVISED -  
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 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 ILLINOIS ROUTE 53  
 SCALE: 1"=10'H 5'V SHEET 9 OF 11 SHEETS STA. 80+00.00 TO STA. 81+00.00

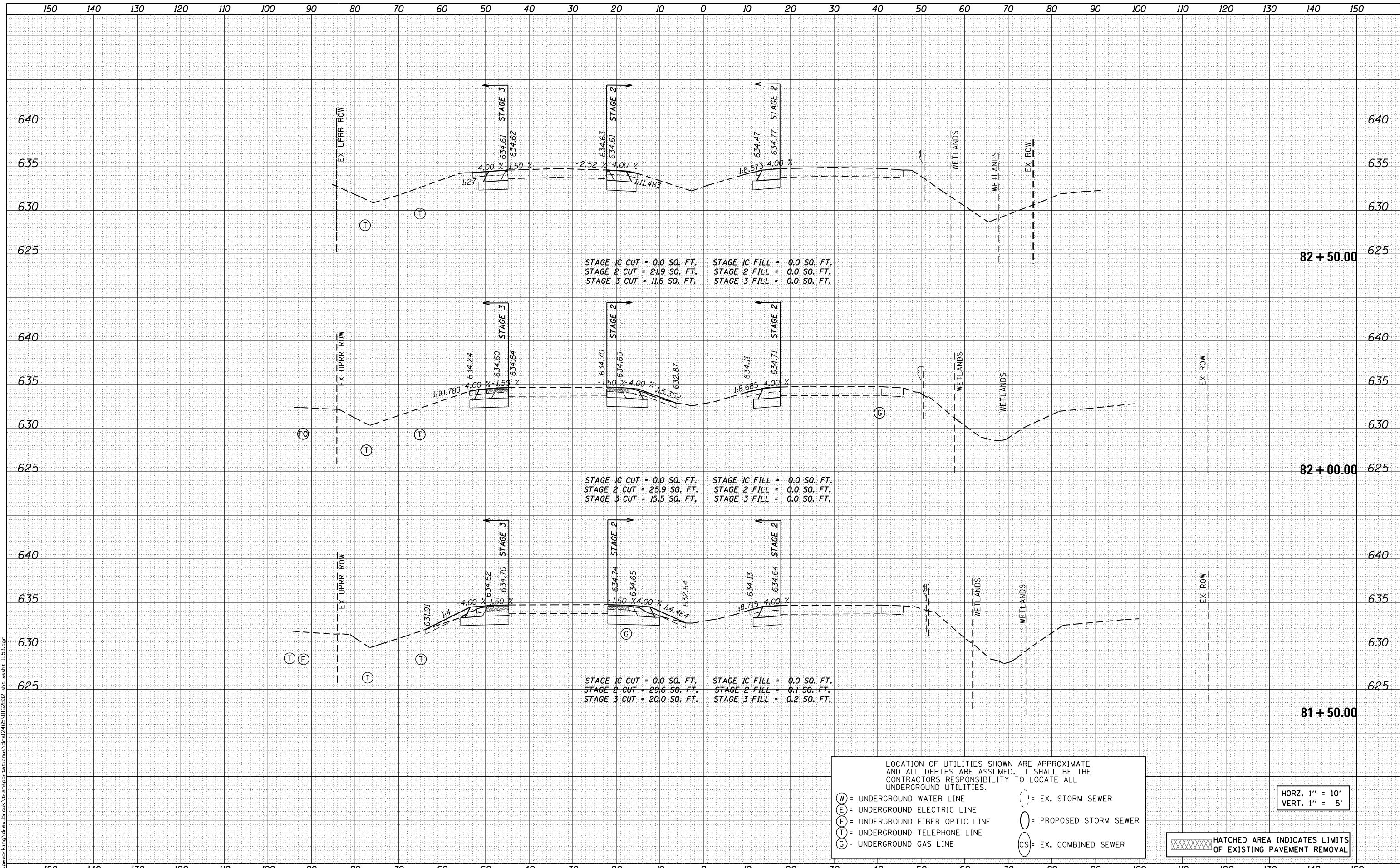
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	144
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				



DATE	
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ORIGINAL SURVEY NO.	
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USER NAME = draw_brouk	DESIGNED - MTL	REVISED -
	DRAWN - DAB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - JCM	REVISED -
PLOT DATE = 3/21/2016	DATE - 03/21/2016	REVISED -

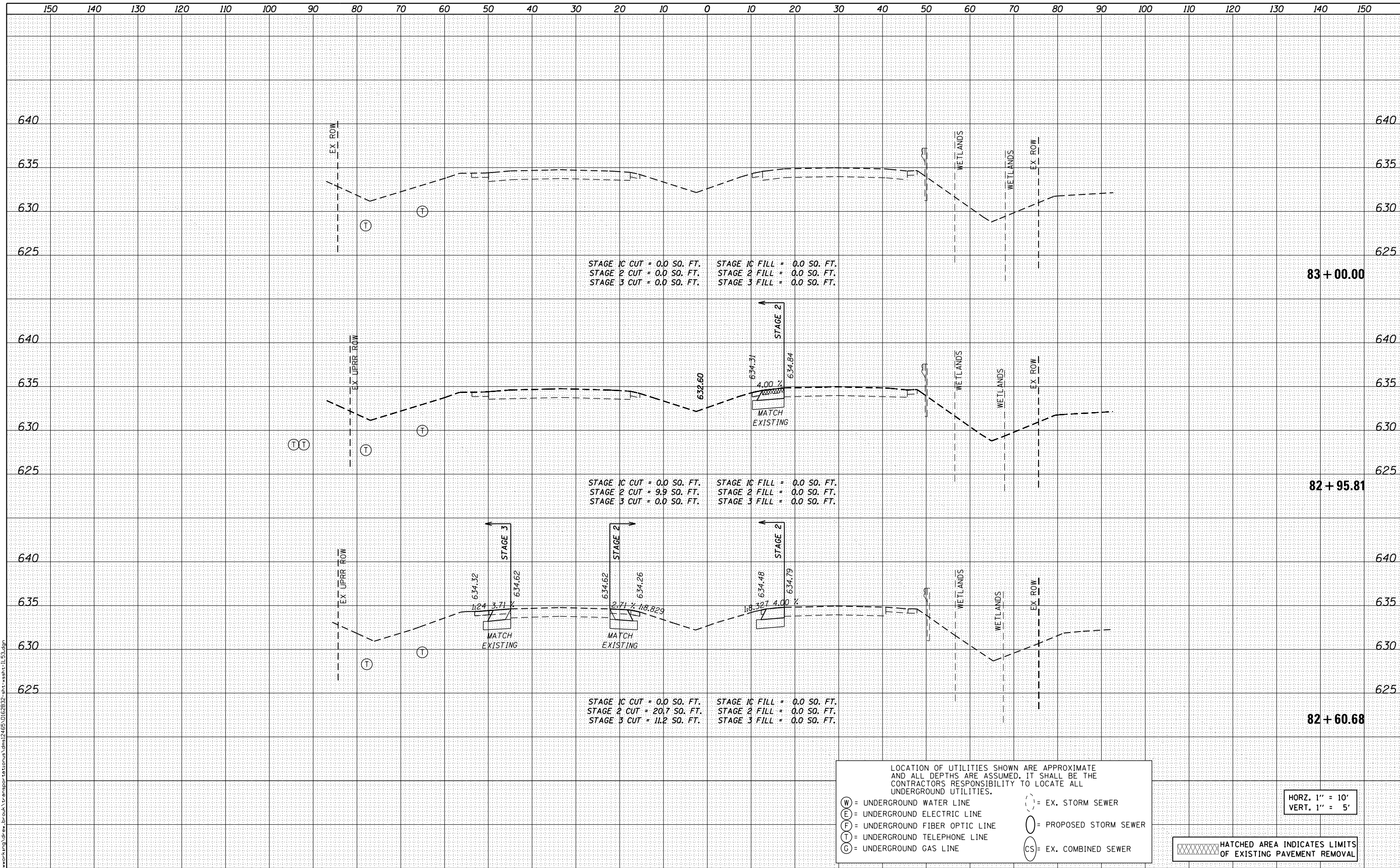
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS ILLINOIS ROUTE 53</b>		
SCALE: 1"=10'H 5'V	SHEET 10 OF 11 SHEETS	STA. 81+50.00 TO STA. 82+50.00

F.A.P. RTE. 846	SECTION DIHSRR2016-01	COUNTY WILL	TOTAL SHEETS 146	SHEET NO. 145
			CONTRACT NO. 62B32	
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINISHED	
NO.	
DATE	
BY	
FINISHED	
NO.	
DATE	
BY	
FINISHED	
NO.	

DATE	
BY	
FINISHED	
NO.	
DATE	
BY	
FINISHED	
NO.	



STAGE 1C CUT = 0.0 SQ. FT. STAGE 1C FILL = 0.0 SQ. FT.  
 STAGE 2 CUT = 0.0 SQ. FT. STAGE 2 FILL = 0.0 SQ. FT.  
 STAGE 3 CUT = 0.0 SQ. FT. STAGE 3 FILL = 0.0 SQ. FT.

STAGE 1C CUT = 0.0 SQ. FT. STAGE 1C FILL = 0.0 SQ. FT.  
 STAGE 2 CUT = 9.9 SQ. FT. STAGE 2 FILL = 0.0 SQ. FT.  
 STAGE 3 CUT = 0.0 SQ. FT. STAGE 3 FILL = 0.0 SQ. FT.

STAGE 1C CUT = 0.0 SQ. FT. STAGE 1C FILL = 0.0 SQ. FT.  
 STAGE 2 CUT = 20.7 SQ. FT. STAGE 2 FILL = 0.0 SQ. FT.  
 STAGE 3 CUT = 11.2 SQ. FT. STAGE 3 FILL = 0.0 SQ. FT.

LOCATION OF UTILITIES SHOWN ARE APPROXIMATE AND ALL DEPTHS ARE ASSUMED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES.

(W) = UNDERGROUND WATER LINE  
 (E) = UNDERGROUND ELECTRIC LINE  
 (F) = UNDERGROUND FIBER OPTIC LINE  
 (T) = UNDERGROUND TELEPHONE LINE  
 (C) = UNDERGROUND GAS LINE

(S) = EX. STORM SEWER  
 (CS) = EX. COMBINED SEWER

HATCHED AREA INDICATES LIMITS OF EXISTING PAVEMENT REMOVAL

HORZ. 1" = 10'  
 VERT. 1" = 5'



USER NAME = drew.brouk  
 DESIGNED - MTL  
 DRAWN - DAB  
 CHECKED - JCM  
 DATE - 03/21/2016

REVISIED -  
 REVISIED -  
 REVISIED -  
 REVISIED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 ILLINOIS ROUTE 53

SCALE: 1"=10'H 5'V SHEET 11 OF 11 SHEETS STA. 82+60.68 TO STA. 83+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	DIHSRR2016-01	WILL	146	146
			CONTRACT NO. 62B32	

ILLINOIS FED. AID PROJECT