				CONSTRUCTION CODE	
				FED 80% / LA 20%	FED 80% / LA 20%
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0004 RURAL	BRIDGE 0013 RURAL
50102400	CONCRETE REMOVAL	CU YD	19.1	--	19.1
50105220	PIPE CULVERT REMOVAL	FOOT	49	49	--
50200100	STRUCTURE EXCAVATION	CU YD	158	--	158
50300225	CONCRETE STRUCTURES	CU YD	16.2	--	16.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	179.7	--	179.7
50300260	BRIDGE DECK GROOVING	SQ YD	697	--	697
50300300	PROTECTIVE COAT	SQ YD	697	--	697
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	--	1
50500505	STUD SHEAR CONNECTORS	EACH	3024	--	3024
50800105	REINFORCEMENT BARS	POUND	1830	--	1830
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	50780	--	50780
50800530	MECHANICAL SPLICERS	EACH	32	--	32
50901050	STEEL RAILING, TYPE SM	FOOT	451	--	451

* SPECIALTY ITEM

DRAWN BY: NV
CHECKED BY: JKC
DATE: 02/2017

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION
	JKC	06/18	Stud Quantity
	JKC	07/18	Reinforcement Bars Quantity

CHAMLIN ASSOCIATES, INC. PERU MORRIS ILLINOIS

BRACEVILLE ROAD
SECTION 16-00158-00-BR
GRUNDY COUNTY

SUMMARY OF QUANTITIES

CONSTRUCTION PLANS

CONTRACT NO. 87642
CURRENT AS OF: 07/19/2018
SCALE: NONE
SHEET 5
FILE NO.: 111158.00 Y-
OF 46

				CONSTRUCTION CODE	
				FED 80% / LA 20%	FED 80% / LA 20%
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0004 RURAL	BRIDGE 0013 RURAL
51500100	NAME PLATES	EACH	1	–	1
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12	–	12
52100520	ANCHOR BOLTS, 1"	EACH	24	–	24
52100530	ANCHOR BOLTS, 1 1/4"	EACH	8	–	8
54213459	END SECTIONS 24"	EACH	2	2	–
542D1069	PIPE CULVERTS, CLASS D, TYPE 2 24"	FOOT	52	52	–
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	76	–	76
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	1	1	–
61140100	STORM SEWERS (SPECIAL), 10"	FOOT	26	26	–
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	175	175	–
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1	–
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	–
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2	–

* SPECIALTY ITEM

DRAWN BY: NV
CHECKED BY: JKC
DATE: 02/2017

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION
1	JKC	7/12/18	TERMINAL PAY ITEM

CHAMLIN & ASSOCIATES, INC.
PERU MORRIS ILLINOIS

BRACEVILLE ROAD
SECTION 16-00158-00-BR
GRUNDY COUNTY

SUMMARY OF QUANTITIES

CONSTRUCTION PLANS

CONTRACT NO. 87642

CURRENT AS OF: 03/28/2017
SCALE: NONE | SHEET 6
FILE NO.: 111158.00 Y– | OF 46

EARTHWORK SCHEDULE*

LOCATION	20200100 EARTH EXCAVATION CU. YD.	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE* CU. YD.	EMBANKMENT CU. YD.	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) CU. YD.
STA 88+00 TO STA 89+90	661	495.8	567	-71.3
STA 92+04 TO STA 95+50	519	389.3	1309	-919.8
TOTAL	1180	885	1876	-991
				FURNISHED EXCAVATION

* 25% SHRINKAGE FACTOR

SEEDING SCHEDULE

LOCATION	25000200 SEEDING, CLASS 2 ACRE	25000400 NITROGEN FERTILIZER NUTRIENT POUND	25000500 PHOSPHORUS FETILIZER NUTRIENT POUND	25000600 POTASSIUM FERTILIZER NUTRIENT POUND	25100630 EROSION CONTROL BLANKET SQ YD	28000250 TEMPORARY EROSION CONTROL SEEDING POUND
MAINLINE						
88+00 TO 89+90, LT	0.19	16.79	16.79	16.79	903.00	37.31
88+00 TO 89+90, RT	0.15	13.16	13.16	13.16	707.82	29.25
92+04 TO 95+50, LT	0.18	15.86	15.86	15.86	852.72	35.24
92+04 TO 95+50, RT	0.30	26.68	26.68	26.68	1391.89	59.29
TOTAL	0.75	72	72	72	3855	161

EROSION CONTROL SCHEDULE

LOCATION	28000305 TEMPORARY DITCH CHECKS FOOT	28000400 PERIMETER EROSION BARRIER FOOT	28000500 INLET AND PIPE PROTECTION EACH	28100105 STONE RIPRAP, CLASS A3 SQ YD
LT STA 88+00 TO STA 88+50	--	--	--	119
LT & RT STA 89+50	16	--	--	--
LT & RT STA 92+50	16	--	--	--
LT STA 92+00 TO STA 95+50	--	344	--	--
RT STA 95+22.48	--	--	1	--
TOTAL	32	344	1	119

PAVING AND DRIVEWAY SCHEDULE

LOCATION	35100100 AGGREGATE BASE COURSE, TYPE A TON	40200800 AGGREGATE SURFACE COURSE, TYPE B TON	40201000 AGGREGATE FOR TEMPORARY ACCESS TON	40800025 BITUMINOUS MATERIALS (PRIME COAT) POUND	40800029 BITUMINOUS MATERIALS (TACK COAT) POUND	40800050 INCIDENTAL HOT-MIX ASPHALT SURFACING TON	48100200 AGGREGATE SHOULDERS, TYPE B TON	48203013 HOT-MIX ASPHALT SHOULDERS, 4" SQ YD
STA 89+68 TO STA 89+80	21.9	--	--	72.0	--	--	--	--
STA 92+04 TO STA 92+16	21.9	--	--	72.0	--	--	--	--
STA 88+00 TO STA 89+80	--	--	--	--	189.3	63.8	--	--
STA 92+04 TO STA 95+50	--	--	--	--	557.7	124.2	--	--
RT STA 88+00 TO STA 88+69.79	--	--	--	--	--	--	7.6	--
LT STA 88+00 TO STA 89+12	--	--	--	--	--	--	12.4	--
RT STA 88+69.79 TO STA 89+79.17	--	--	--	--	--	--	--	85.4
LT STA 89+12 TO STA 89+79.17	--	--	--	--	--	--	--	49.0
RT STA 92+04.83 TO STA 94+73.08	--	--	--	--	--	--	--	205.4
LT STA 92+04.83 TO STA 93+20.02	--	--	--	--	--	--	--	101.9
RT STA 95+11.51 TO STA 95+50	--	--	--	--	--	--	4.2	--
LT STA 93+20.02 TO STA 95+50	--	--	--	--	--	--	25.7	--
RT STA 94+91	--	55.2	55.2	--	--	--	--	--
TOTAL	44	55	55	144	747	188	50	442

GUARDRAIL & BARRIER MARKER SCHEDULE

LOCATION	78200005 GUARDRAIL REFLECTORS, TYPE EACH	72501000 TERMINAL MARKER - DIRECT APPLIED EACH
RT STA 88+82.77 TO RT STA 94+66.11	6	1
LT STA 89+22.77 TO LT STA 92+98.87	4	1
TOTAL	10	2

GUARDRAIL REMOVAL SCHEDULE

LOCATION	63200310 GUARDRAIL REMOVAL FOOT
LT STA 88+67.79 TO STA 89+79.17	113
RT STA 88+92.84 TO STA 89+79.17	88
LT STA 92+04.83 TO STA 93+54.20	149
RT STA 92+04.83 TO STA 94+64.89	262
TOTAL	612

PAVEMENT MARKING SCHEDULE

LOCATION	78001110 PAINT PAVEMENT MARKING - LINE 4" EACH	78001130 PAINT PAVEMENT MARKING - LINE 6" FOOT
STA 88+00 TO STA 95+50 (CENTERLINE)	--	190
STA 88+00 TO STA 95+50 (NO PASSING)	750	--
TOTAL	750	190

GUARDRAIL SCHEDULE

LOCATION	63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS FOOT	63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A EACH	63100045 TRAFFIC BARRIER TERMINAL, TYPE 2 EACH	63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT EACH	63100169 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED EACH
RT STA 88+82.77 TO RT STA 89+79.02	--	1	--	1	--
RT STA 92+04.98 TO RT STA 94+66.16	175	1	--	1	--
LT STA 89+22.77 TO LT STA 89+79.02	--	1	1	--	--
LT STA 92+04.98 TO LT STA 92+98.87	--	1	--	--	1
TOTAL	175	4	1	2	1

CULVERT SCHEDULE

LOCATION	54213459 END SECTIONS 24" EACH	542D1069 PIPE CULVERTS, CLASS D,TYPE 2 24" FOOT
RT STA 94+59.41 TO RT STA 95+22.48	2	52
TOTAL	2	52

PAVEMENT REMOVAL SCHEDULE

LOCATION	44000100 PAVEMENT REMOVAL SQ YD
STA 89+68 TO STA 89+80	30
STA 92+04 TO STA 92+16	30
TOTAL	60

HMA SURFACE REMOVAL - BUTT JOINT SCHEDULE

LOCATION	40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT SQ YD
STA 88+00 TO STA 88+50	122
STA 92+90 TO STA 95+50	424
TOTAL	546

STORM SEWER SCHEDULE

LOCATION	61133100 FIELD TILE JUNCTION VAULTS, 2' DIA. EACH	61140100 STORM SEWERS (SPECIAL), 10" FOOT
STA 88+51.70, 33.42' LT TO STA 88+69.59, 52.75' LT	1	26
TOTAL	1	26

PIPE CULVERT REMOVAL SCHEDULE

LOCATION	CULVERT SIZE	50105220 PIPE CULVERT REMOVAL FEET
RT STA 95+00	24"	49
TOTAL	--	49

CONTRACT NO. 87642

DRAWN BY: NV	REVISIONS			
CHECKED BY: JKC	LEVEL 1	BY JKC	DATE 7/12/18	DESCRIPTION TERMINAL SCHEDULE
DATE: 02/2017				

CHAMLIN & ASSOCIATES, INC.

PERU MORRIS ILLINOIS

BRACEVILLE ROAD
SECTION 16-00158-00-BR
GRUNDY COUNTY

SCHEDULE OF QUANTITIES

CONSTRUCTION PLANS

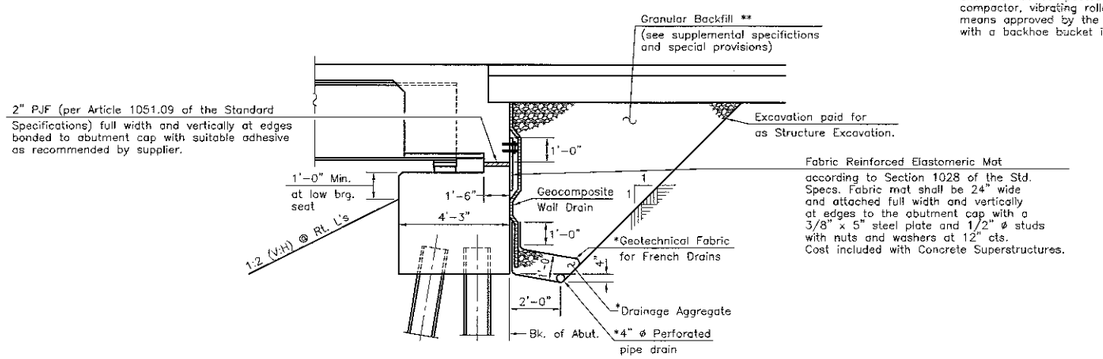
CURRENT AS OF: 03/28/2017
SCALE: NONE
SHEET 9
FILE NO.: 111158.00 Y-
OF 46

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 7/8 in. dia., holes 15/16 in. dia., unless otherwise noted.
2. Calculated weight of Structural Steel = M270 GR50 205710
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designed (E) shall be epoxy coated.
6. 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.
7. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
8. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
9. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 18 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
10. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
11. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
12. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
13. Exposed surfaces of bearings shall be painted as specified in Section 506 of the Standard Specifications.
14. Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
15. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
16. Existing name plate shall be cleaned and relocated next to new name plate. Cost included with Name Plates.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Granular Backfill for Structures	Cu. Yd.	–	153	153
Stone Riprap, Class A4	Sq. Yd.	–	682	682
Filter Fabric	Sq. Yd.	–	682	682
Removal of Existing Superstructures	Each	1	–	1
Concrete Removal	Cu. Yd.	–	19.1	19.1
Structure Excavation	Cu. Yd.	–	158	158
Concrete Structures	Cu. Yd.	–	16.2	16.2
Concrete Superstructure	Cu. Yd.	179.7	–	179.7
Bridge Deck Grooving	Sq. Yd.	697	–	697
Protective Coat	Sq. Yd.	697	–	697
Furnishing and Erecting Structural Steel	L. Sum	1	–	1
Stud Shear Connectors	Each	3024	–	3024
Reinforcement Bars	Pound	–	1830	1830
Reinforcement Bars, Epoxy Coated	Pound	50780	160	50780
Mechanical Splicers	Each	–	32	32
Steel Railing, Type SM	Foot	451	–	451
Name Plates	Each	1	–	1
Elastomeric Bearing Assembly, Type I	Each	12	–	12
Anchor Bolt, 1"	Each	24	–	24
Anchor Bolt, 1 1/4"	Each	8	–	8
Geocomposite Wall Drain	Sq. Yd.	–	76	76
Pipe Underdrains for Structures, 4"	Foot	–	134	134



** The material shall be placed in lifts of 6" and shall be compacted with vibrating plate compactor, vibrating roller or other vibrating means approved by the Engineer. Compaction with a backhoe bucket is not acceptable.

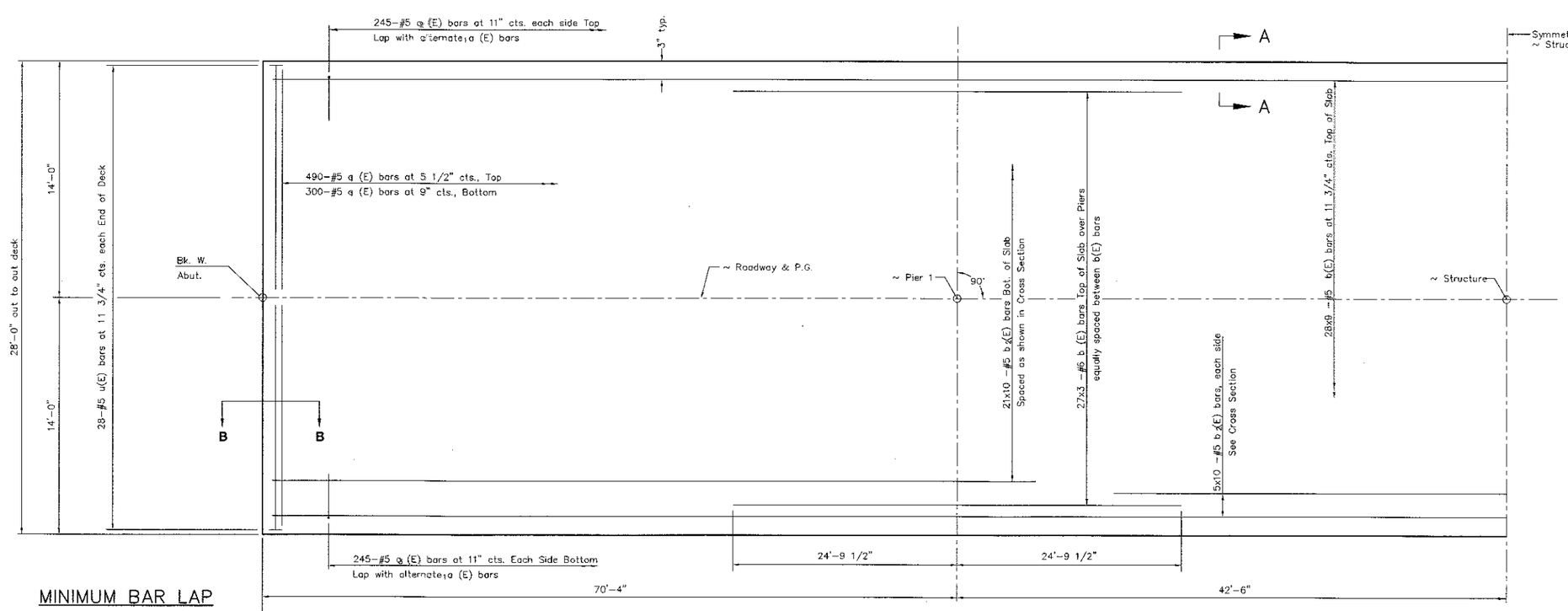
*Included in the cost of Pipe Underdrains for Structures.

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

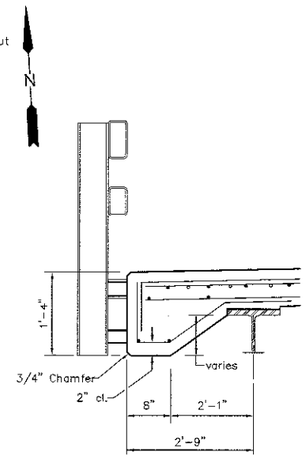
SECTION THRU SEMI-INTEGRAL ABUTMENT

CONTRACT NO. 87642

DRAWN BY: LAG	REVISIONS				CHAMLIN & ASSOCIATES, INC. PERU MORRIS ILLINOIS
CHECKED BY: JKC	LEVEL	BY	DATE	DESCRIPTION	BRACEVILLE ROAD SECTION 16-00158-00-BR GRUNDY COUNTY
DATE: 02/2017		JKC	06/18	Stud Quantity	GENERAL DATA STRUCTURE NO. 032-3260 SHEET 2 OF 17
		JKC	07/18	Revised notes 2 & 13	CONSTRUCTION PLANS
		JKC	07/18	Reinforcement Bars Quantity	CURRENT AS OF: 07/23/2018
					SCALE: AS NOTED SHEET 12
					FILE NO.: 111158.00 Y– OF 46



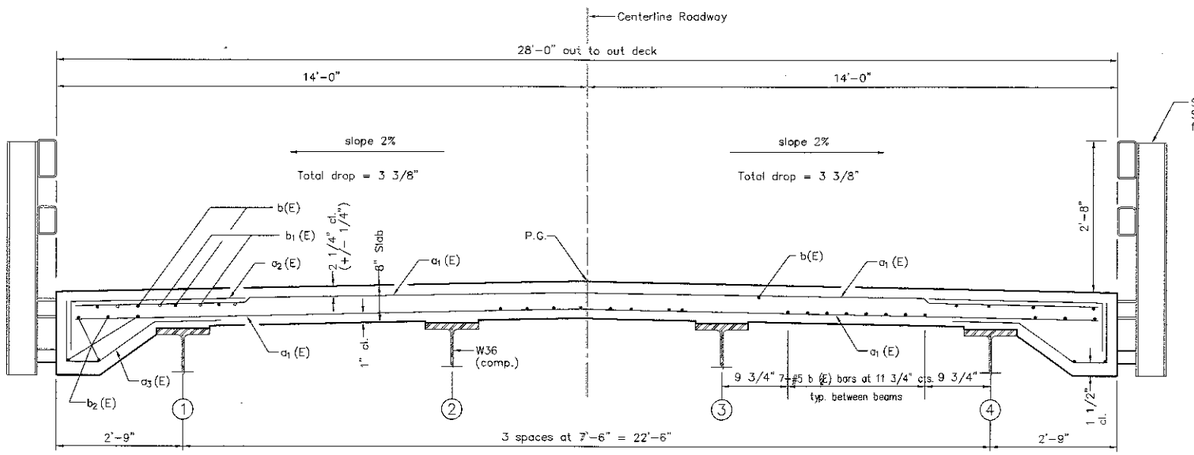
PARTIAL PLAN



SECTION A–A

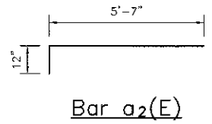
MINIMUM BAR LAP

#5 bar = 3'–0"
#6 bar = 3'–7"

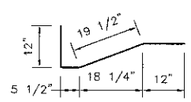


NEAR PIER NEAR MIDSPAN

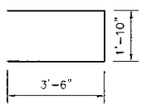
CROSS SECTION
(Looking East)



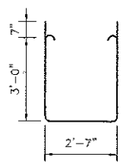
Bar a_2(E)



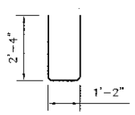
Bar a_3(E)



Bar s(E)



Bar s_1(E)



Bar u(E)

Reinforcement bars in the top of the deck shall be placed with a 1 1/2' minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

Bars indicated thus 6 x 15 – #5 etc. indicates 6 lines of bars with 15 lengths per line.

See sheet 1 of 17 for Rail Post Locations to locate Anchor Device.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_1 (E)	790	#5	27'–9"	
a_2 (E)	490	#5	6'–7"	
a_3 (E)	490	#5	4'–1"	
b(E)	252	#5	27'–8"	
b_1 (E)	162	#6	18'–11"	
b_2 (E)	310	#5	25'–2"	
m(E)	6	#6	27'–9"	
m_1 (E)	32	#5	4'–0"	
m_2 (E)	24	#6	7'–3"	
m_3 (E)	16	#6	2'–6"	
s(E)	64	#5	8'–10"	
s_1 (E)	64	#5	9'–9"	
u(E)	56	#5	5'–10"	
Reinforcement Bars, Epoxy Coated			Pound	50620
Concrete Superstructure			Cu. Yds.	179.7

DRAWN BY: LAG	REVISIONS			
CHECKED BY: JKC	LEVEL	BY	DATE	DESCRIPTION
DATE: 09/2016		JKC	07/18	Reinforcement Bars Quantity

CHAMLIN & ASSOCIATES, INC. PERU MORRIS ILLINOIS

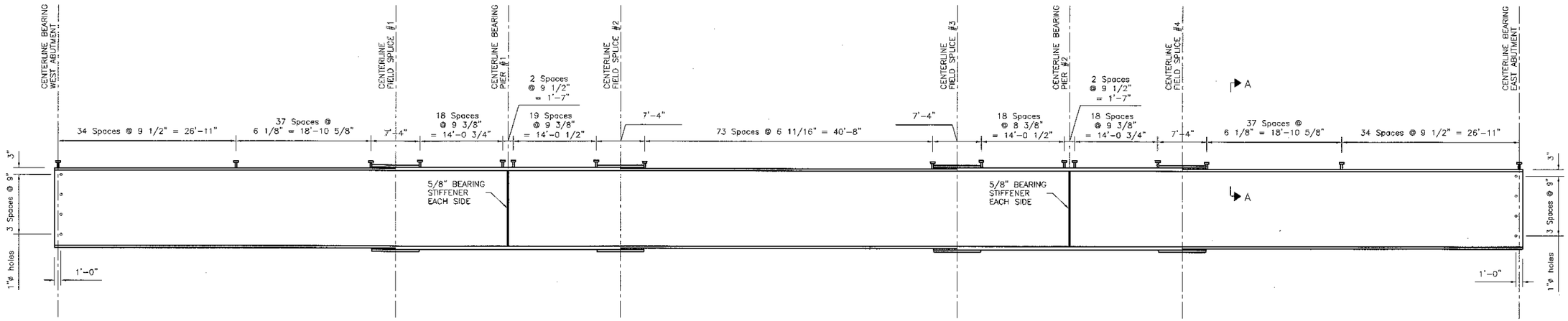
BRACEVILLE ROAD
SECTION 16-00158-00-BR
GRUNDY COUNTY

SUPERSTRUCTURE
STRUCTURE NO. 032-3260
SHEET 4 OF 17

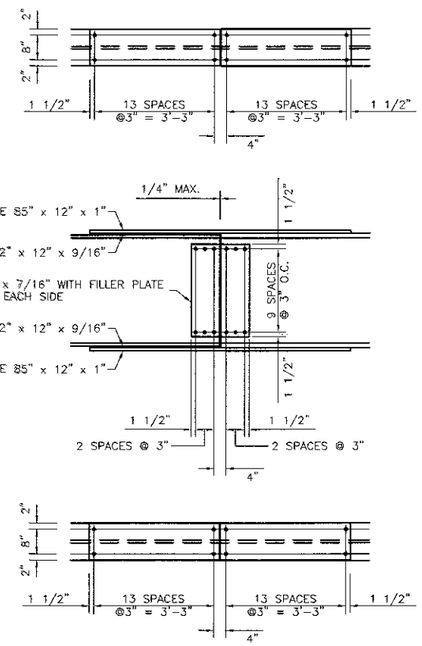
CONSTRUCTION PLANS

CONTRACT NO. 87642

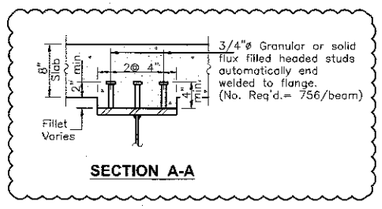
CURRENT AS OF: 07/19/2018
SCALE: NONE SHEET 14
FILE NO.: 111158.00 Y– OF 46



BEAM ELEVATION



SPLICE #1 - #4 DETAIL



SECTION A-A

* Splice plate material shall be AASHTO M270 GR50W.

All plates except filler plates shall be "NTR".

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

DRAWN BY: LAG	REVISIONS			
CHECKED BY: JKC	LEVEL	BY	DATE	DESCRIPTION
DATE: 09/2016		JKC	06/18	Stud spacing
		JKC	07/18	Stud count

CHAMLIN & ASSOCIATES, INC.
PERU MORRIS ILLINOIS

BRACEVILLE ROAD
SECTION 16-00158-00-BR
GRUNDY COUNTY

FRAMING PLAN
STRUCTURE NO. 032-3260
SHEET 8 OF 17

CONSTRUCTION PLANS

CONTRACT NO. 87642

CURRENT AS OF: 07/20/2018	
SCALE: NONE	SHEET 18
FILE NO.: 111158.00 Y-	OF 46