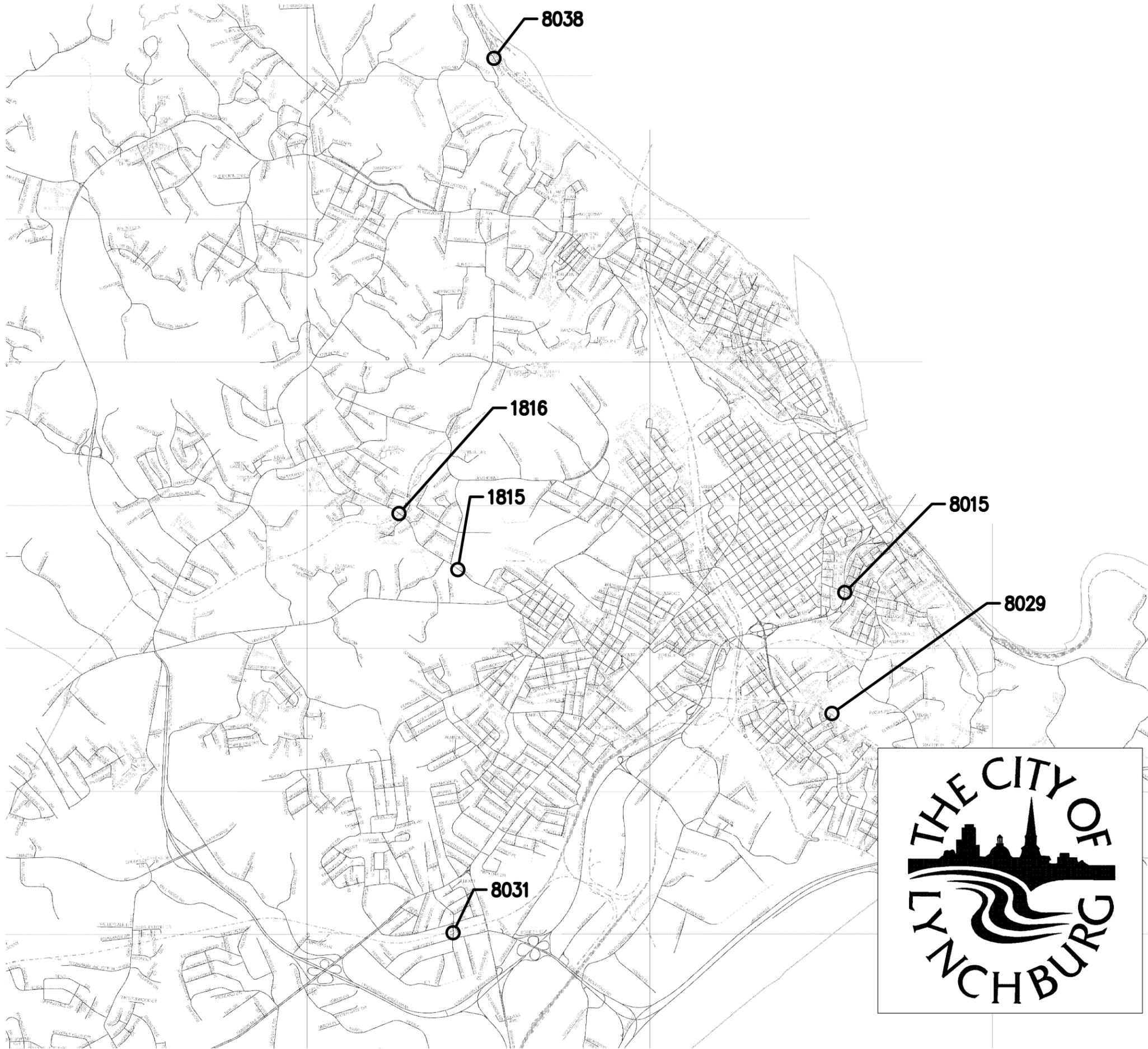


DRAWINGS

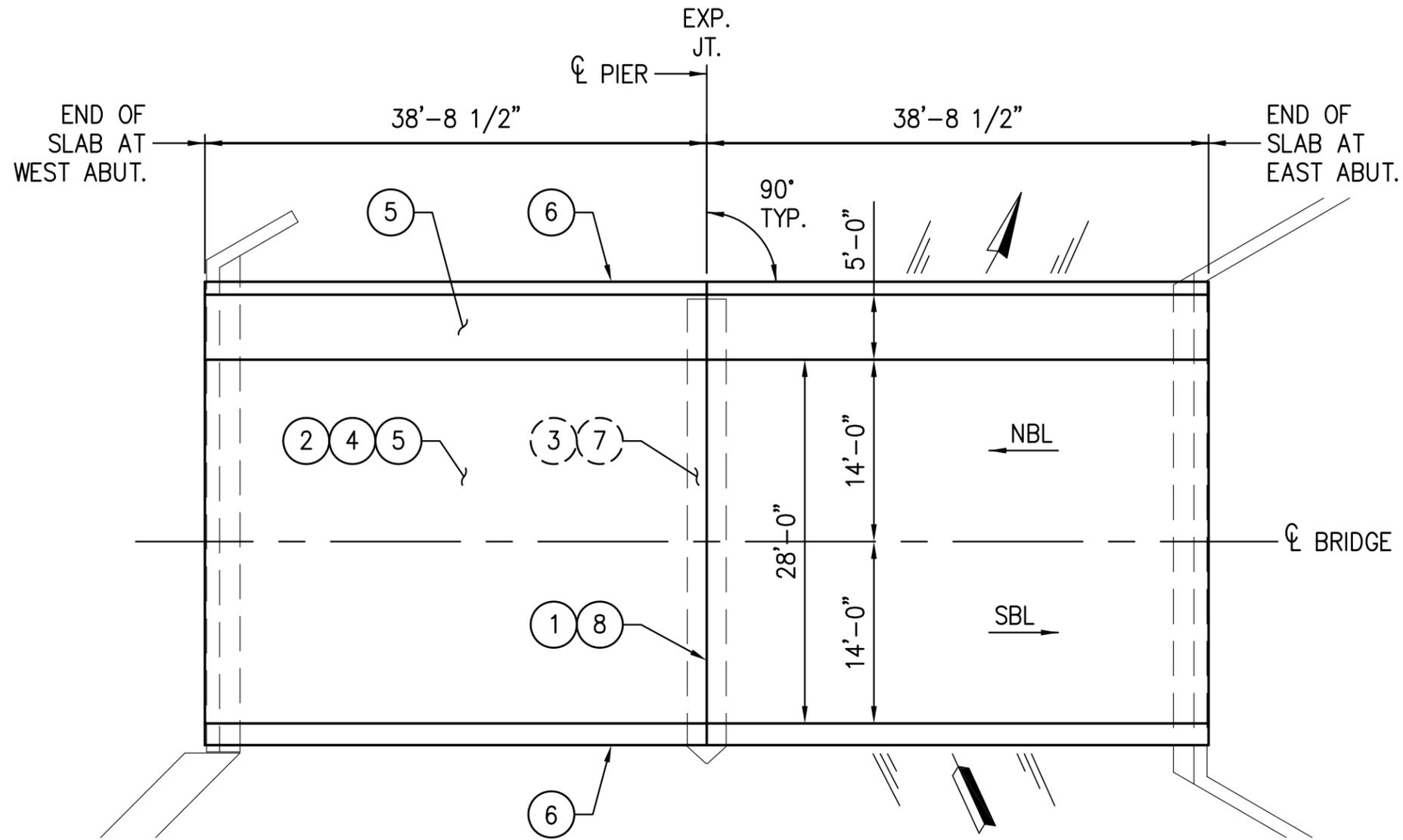
CITY OF LYNCHBURG, VIRGINIA
 2014 BRIDGE REHABILITATIONS
 M & C COMM. NO. 3408



<u>STRUCTURE NO.</u>	<u>STRUCTURE NAME</u>
1815	OLD FOREST ROAD O/ BLACKWATER CREEK
1816	OLD FOREST ROAD O/ N & W RAILROAD
8015	GRACE STREET O/ ROUTE 29 EXPRESSWAY
8029	SEABURY AVENUE O/ N & W RAILROAD
8031	AUTUMN DRIVE O/ N & S RAILROAD
8038	HYDRO STREET O/ PEACHTREE BRANCH



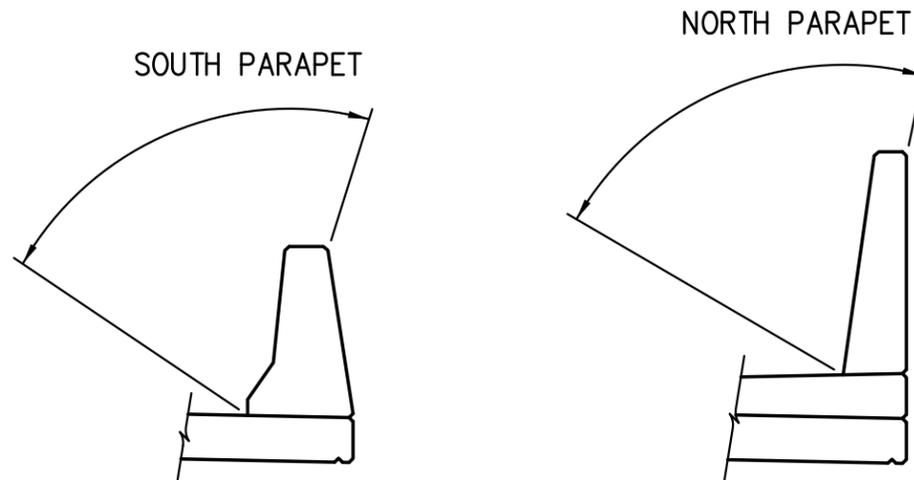
LYNCHBURG, VIRGINIA
 VICINITY MAP



NOTE:
LIMITS OF WATERPROOFING ON PARAPETS.
SEE SPECS FOR WATERPROOFING MATERIAL.

NOTES:

- 1 - EPOXY MORTAR JOINT REPAIR
- 2 - TYPE B PATCHING (HES)
- 3 - ZONE COATING OF BEAM ENDS, DIAPHRAGMS, PIPE SUPPORTS, AND BEARINGS
- 4 - BRIDGE DECK GROOVING
- 5 - WATERPROOFING - PENETRANT SEALER FOR DECK AND SIDEWALK
- 6 - WATERPROOFING - PARAPETS
- 7 - WATERPROOFING - (EPOXY EP-5) - BEARING SEATS AT PIER
- 8 - PREFORMED ELASTOMERIC JOINT SEALER



OLD FOREST ROAD OVER BLACKWATER CREEK
REPAIRS LAYOUT

Issue Date:
14-MARCH-2014

Drawn By: DKA
Date: 28-MAR-2014

2014 BRIDGE REHABILITATIONS
BRIDGE NO. 1815
CITY OF LYNCHBURG, VA

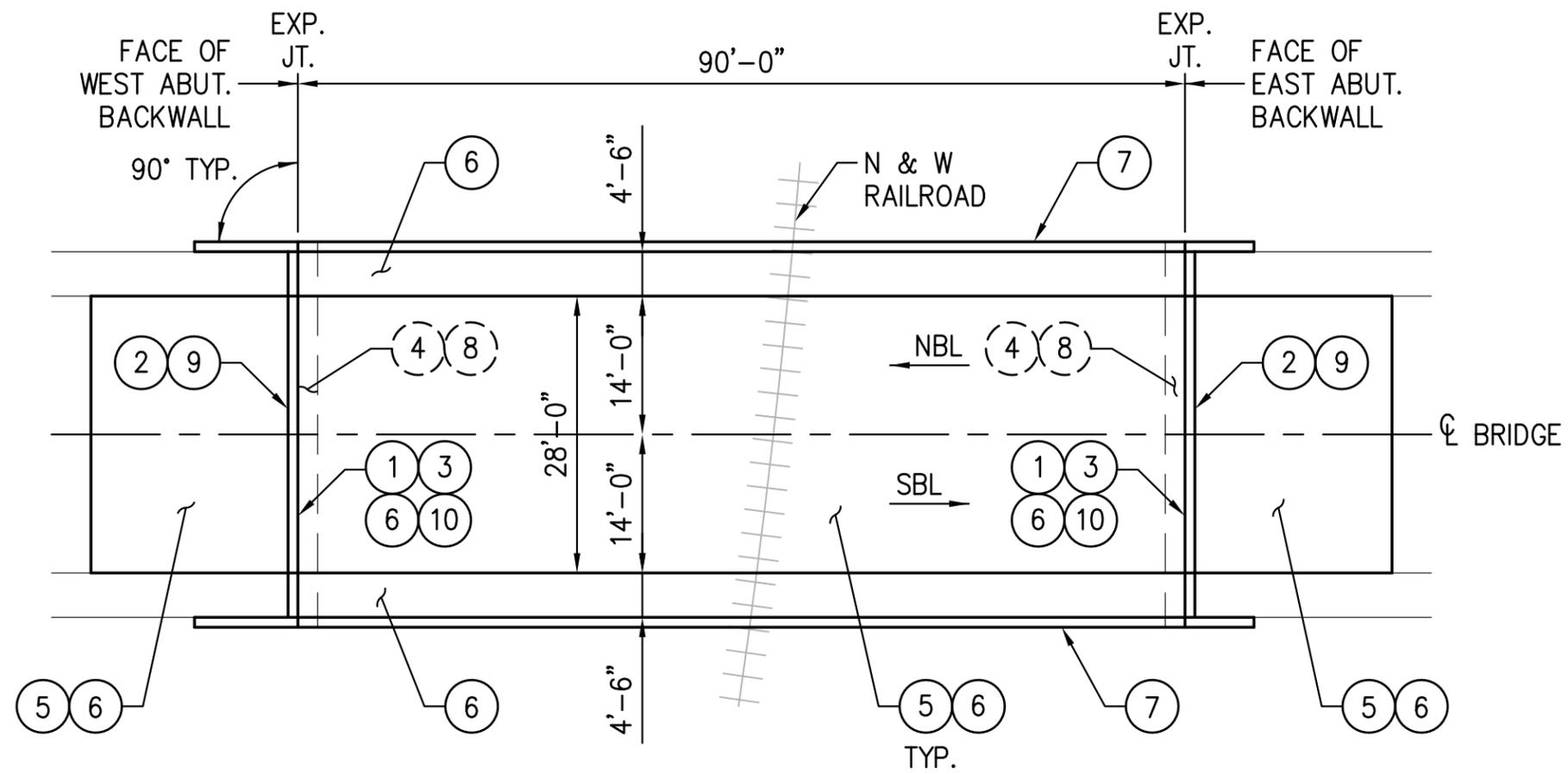
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3408

Sheet No.:
1815

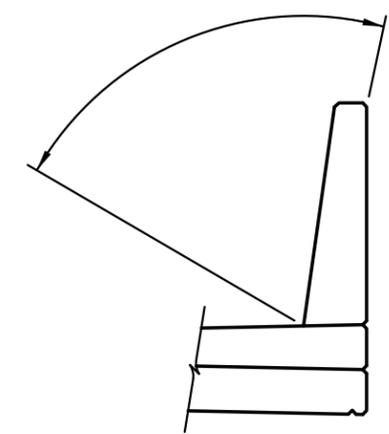


NOTES:

- 1 - EPOXY MORTAR JOINT REPAIR
- 2 - TYPE B PATCHING (HES)
- 3 - SEAL CRACKS IN TOP OF BACKWALLS
- 4 - ZONE COATING OF BEAM ENDS, DIAPHRAGMS, AND BEARINGS
- 5 - BRIDGE DECK GROOVING
- 6 - WATERPROOFING - PENETRANT SEALER FOR DECK, TOP OF BACKWALLS, SIDEWALKS, AND APPROACH SLABS
- 7 - WATERPROOFING - PARAPETS
- 8 - WATERPROOFING - (EPOXY EP-5) - BEARING SEATS
- 9 - REPLACE JOINT SEALANT
- 10 - PREFORMED ELASTOMERIC JOINT SEALER

NOTE:

LIMITS OF WATERPROOFING ON PARAPETS.
SEE SPECS FOR WATERPROOFING MATERIAL.



OLD FOREST ROAD OVER N & W RAILROAD
REPAIRS LAYOUT

Issue Date:
14-MARCH-2014

Drawn By: DKA
Date: 28-MAR-2014

2014 BRIDGE REHABILITATIONS
BRIDGE NO. 1816
CITY OF LYNCHBURG, VA

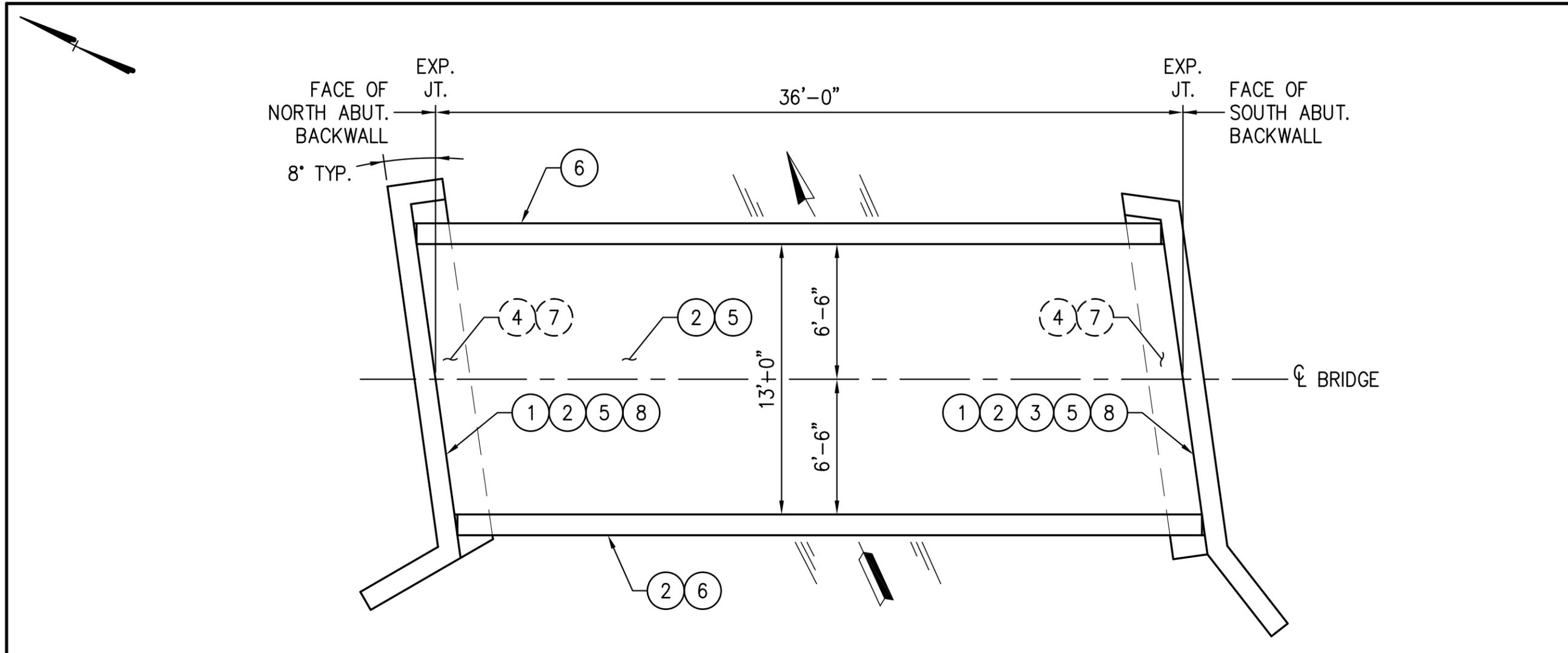
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Commission Number:
3408

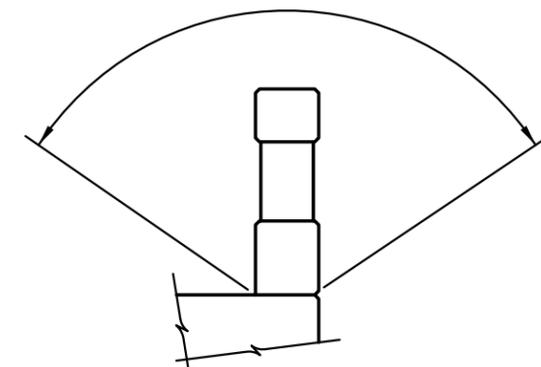
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NOTES:

- 1 - EPOXY MORTAR JOINT REPAIR
- 2 - TYPE B PATCHING (HES)
- 3 - SAW CUT AND WIDEN EXISTING EXPANSION JOINT TO 2½" WIDE x 3" DEEP @ 60° F.
- 4 - ZONE COATING OF BEAM ENDS, DIAPHRAGMS, AND BEARINGS
- 5 - WATERPROOFING - PENETRANT SEALER FOR DECK AND TOP OF BACKWALLS
- 6 - WATERPROOFING - PARAPETS
- 7 - WATERPROOFING - (EPOXY EP-5) - BEARING SEATS
- 8 - PREFORMED ELASTOMERIC JOINT SEALER

NOTE:
LIMITS OF WATERPROOFING ON PARAPETS.
SEE SPECS FOR WATERPROOFING MATERIAL.



HYDRO STREET OVER PEACHTREE BRANCH
REPAIRS LAYOUT

Issue Date:
14-MARCH-2014

Drawn By: DKA
Date: 28-MAR-2014

2014 BRIDGE REHABILITATIONS
BRIDGE NO. 8038
CITY OF LYNCHBURG, VA

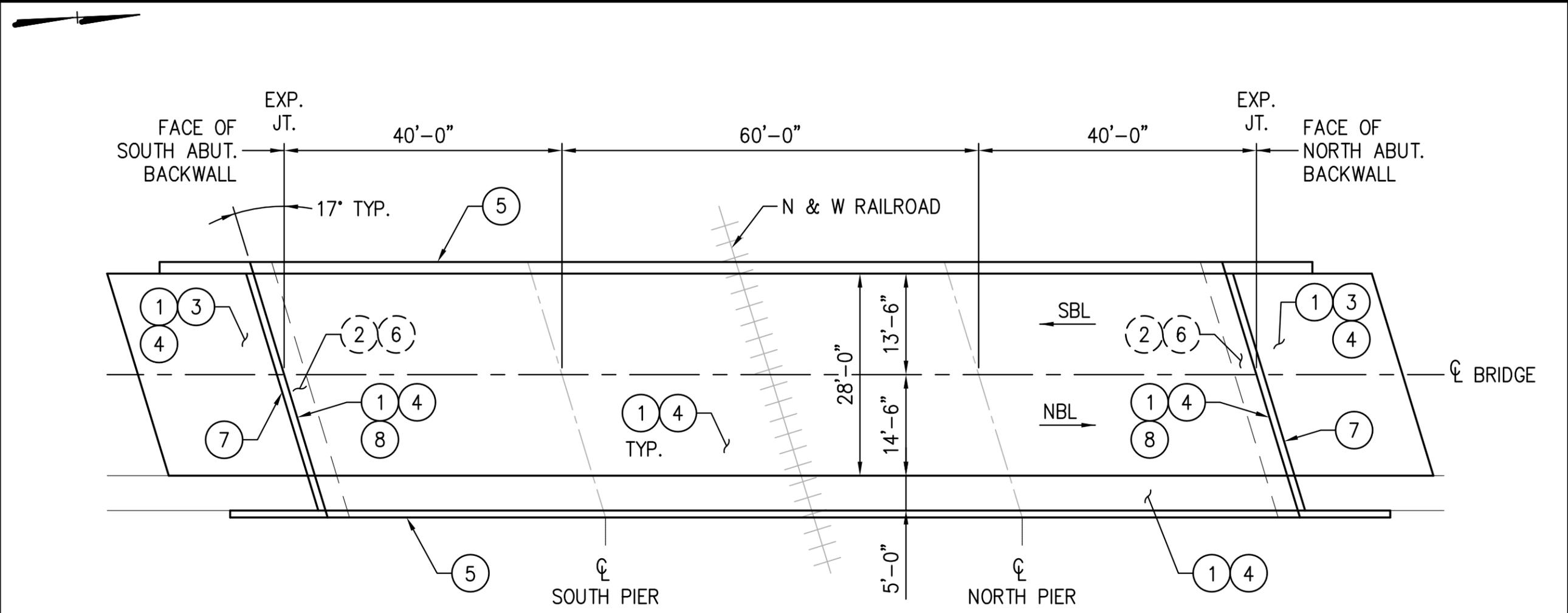
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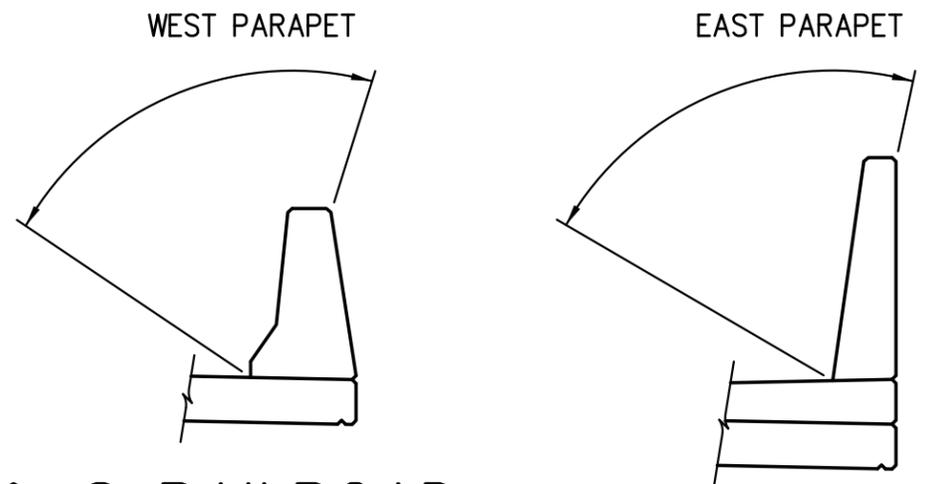
Commission Number:
3408

Sheet No.:
8038



NOTE:
LIMITS OF WATERPROOFING ON PARAPETS.
SEE SPECS FOR WATERPROOFING MATERIAL.

- NOTES:
- 1 - SEAL CRACKS IN DECK, SIDEWALKS, TOP OF BACKWALLS, AND APPROACH SLABS
 - 2 - ZONE COATING OF EXISTING BEARINGS
 - 3 - BRIDGE DECK GROOVING - APPROACH SLABS
 - 4 - WATERPROOFING - PENETRANT SEALER FOR DECK, TOP OF BACKWALLS, SIDEWALK AND APPROACH SLABS
 - 5 - WATERPROOFING - PARAPETS
 - 6 - WATERPROOFING - (EPOXY EP-5) - BEARING SEATS AT ABUTMENTS
 - 7 - REPLACE JOINT SEALANT
 - 8 - PREFORMED ELASTOMERIC JOINT SEALER



AUTUMN DRIVE OVER N & S RAILROAD

REPAIRS LAYOUT

Issue Date:
14-MARCH-2014

Drawn By: DKA
Date: 28-MAR-2014

2014 BRIDGE REHABILITATIONS
BRIDGE NO. 8031
CITY OF LYNCHBURG, VA

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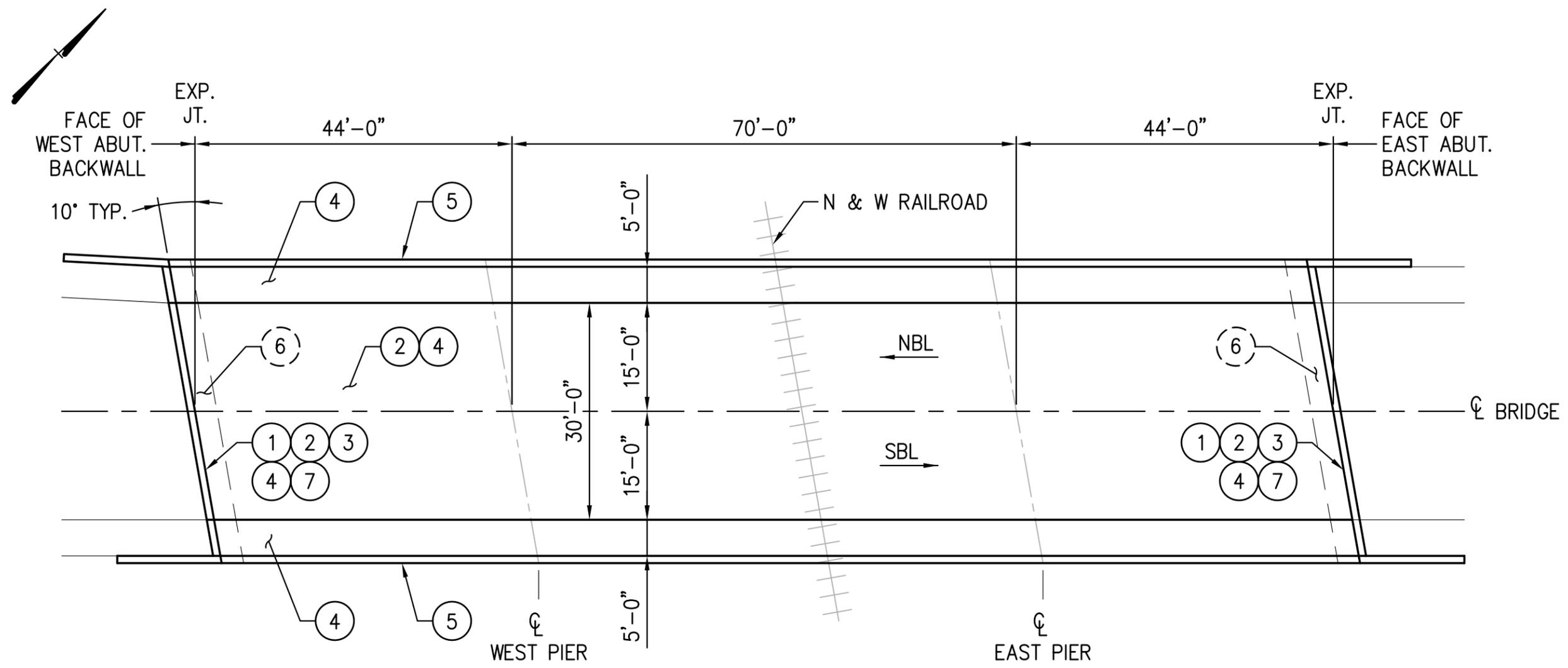


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Commission Number:
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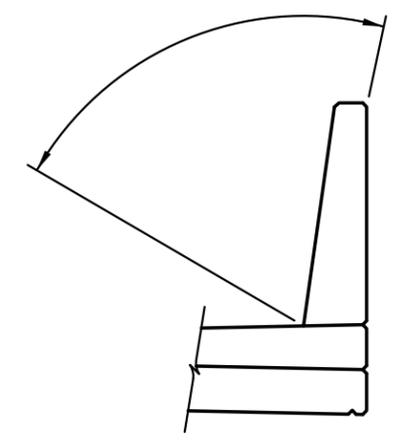


NOTES:

- 1 - EPOXY MORTAR JOINT REPAIR
- 2 - TYPE B PATCHING (HES)
- 3 - SEAL CRACKS IN TOP OF BACKWALL.
- 4 - WATERPROOFING - PENETRANT SEALER FOR DECK, TOP OF BACKWALLS, AND SIDEWALKS
- 5 - WATERPROOFING - PARAPETS
- 6 - WATERPROOFING - (EPOXY EP-5) - BEARING SEATS AT ABUTMENTS
- 7 - PREFORMED ELASTOMERIC JOINT SEALER

NOTE:

LIMITS OF WATERPROOFING ON PARAPETS.
SEE SPECS FOR WATERPROOFING MATERIAL.



SEABURY AVENUE OVER N & W RAILROAD
REPAIRS LAYOUT

Issue Date:
14-MARCH-2014

Drawn By: DKA
Date: 28-MAR-2014

2014 BRIDGE REHABILITATIONS
BRIDGE NO. 8029
CITY OF LYNCHBURG, VA

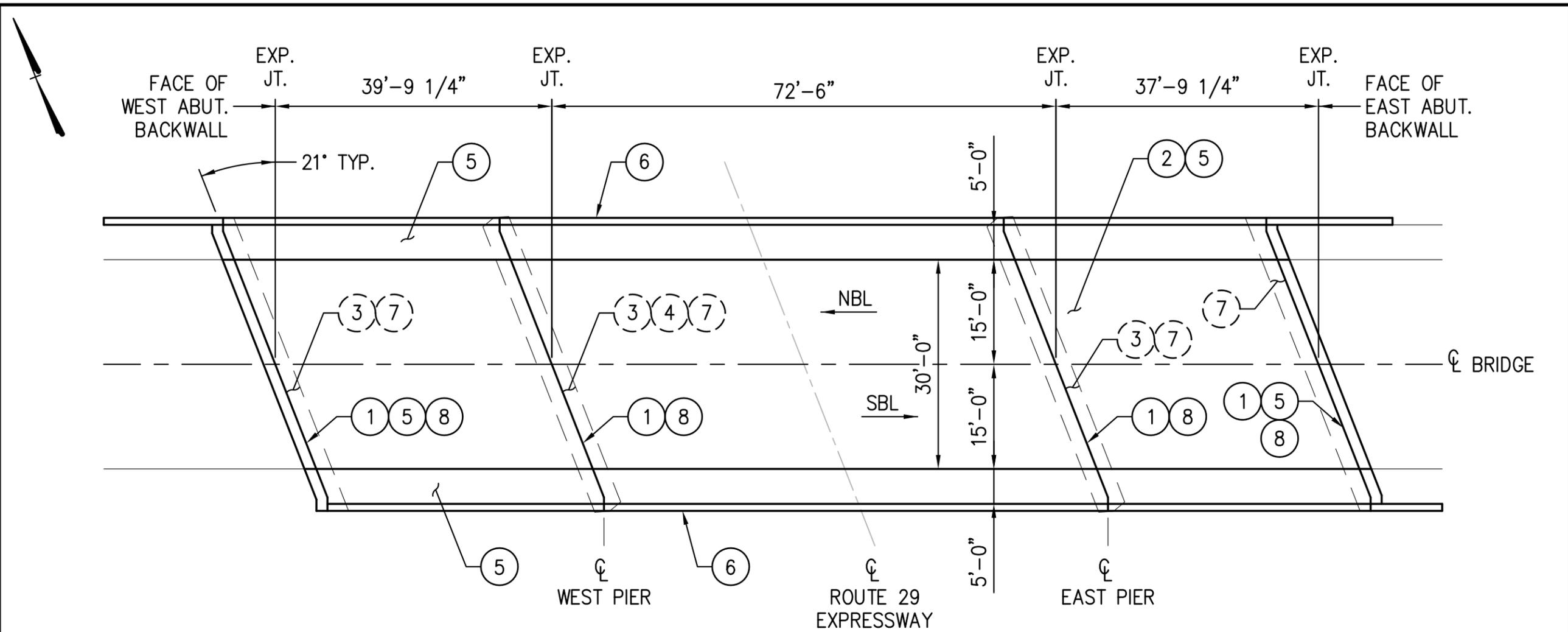
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8029

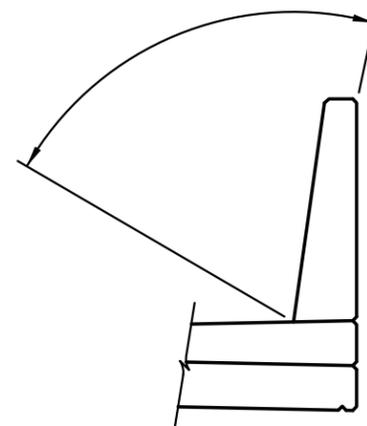


NOTES:

- 1 - EPOXY MORTAR JOINT REPAIR
- 2 - TYPE B PATCHING (HES)
- 3 - ZONE COATING OF EXISTING BEARINGS
- 4 - ZONE COATING OF BEAM ENDS AND END DIAPHRAGMS AT WEST PIER
- 5 - WATERPROOFING - PENETRANT SEALER FOR DECK, TOP OF BACKWALLS, AND SIDEWALKS
- 6 - WATERPROOFING - PARAPETS
- 7 - WATERPROOFING - (EPOXY EP-5) - BEARING SEATS
- 8 - PREFORMED ELASTOMERIC JOINT SEALER

NOTE:

LIMITS OF WATERPROOFING ON PARAPETS.
SEE SPECS FOR WATERPROOFING MATERIAL.



GRACE STREET OVER ROUTE 29 EXPRESSWAY
REPAIRS LAYOUT

Issue Date:
14-MARCH-2014

Drawn By: DKA
Date: 28-MAR-2014

2014 BRIDGE REHABILITATIONS
BRIDGE NO. 8015
CITY OF LYNCHBURG, VA

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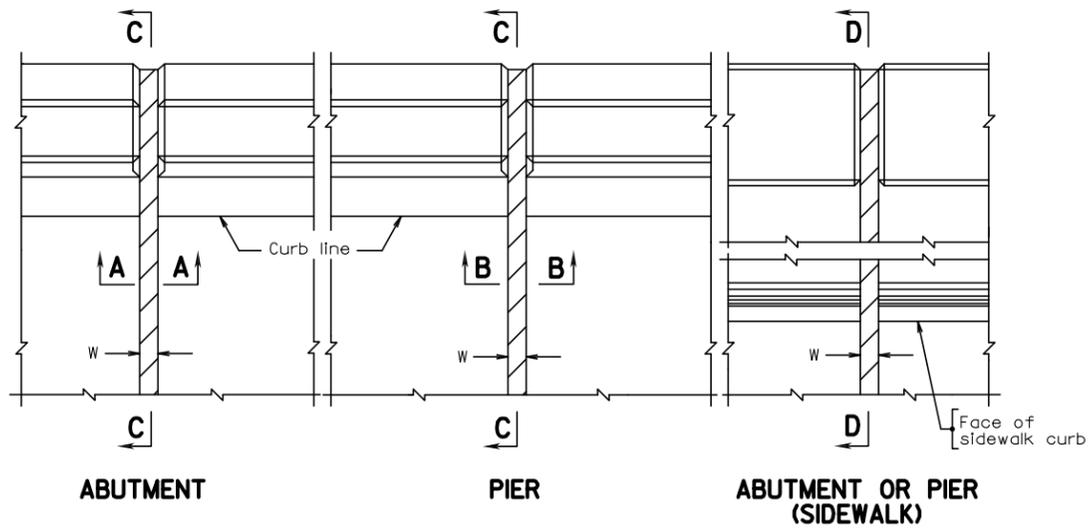
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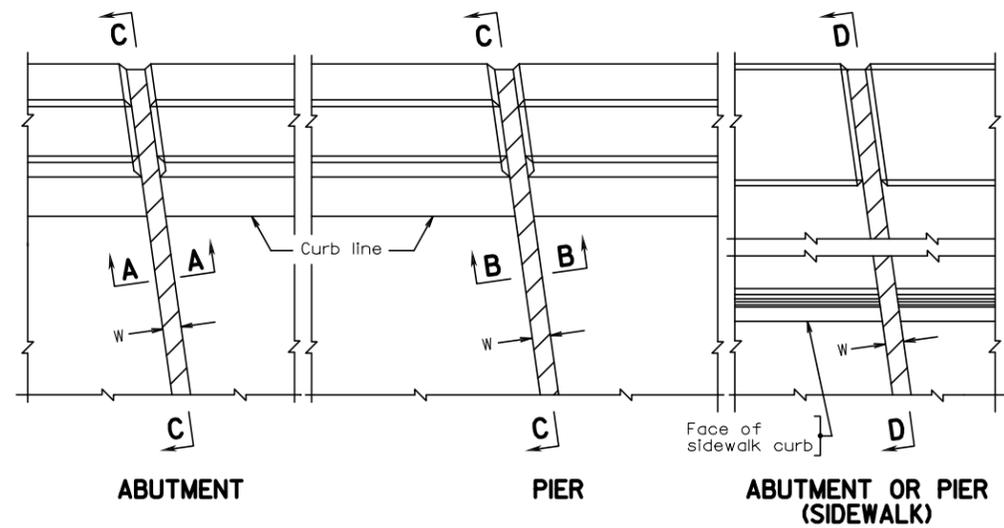
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Commission Number:
3408

Sheet No.:
8015



PART PLAN - STRAIGHT CROSSING



PART PLAN - SKEWED CROSSING

Notes:

Section of sealer shown is heavy-duty structural type sealer and may vary slightly depending on manufacturer.

As nearly as possible, sides of joints shall be straight, vertical and parallel. The area of the installation shall be free from cracks and spalls.

Sealer shall be installed in one continuous piece except for sidewalk areas.

Joint width W is the final joint width of the cured concrete when placed at 60°F. The width W shall be increased or decreased for every 10°F temperature drop or rise respectively by t. When formed, joint width W shall be reduced by the amount Δ to compensate for the opening of the joint caused by the deflection of the beam when the deck concrete is placed. If the joint is formed so that the form material will not move and the joint will not open as the deck concrete is placed, then adjustment Δ shall not be made.

$$\text{Fixed Bearing: } \Delta = \frac{4d \cdot \Delta's}{L}$$

$$\text{Expansion Bearing: } \Delta = \frac{d \cdot \Delta's}{L}$$

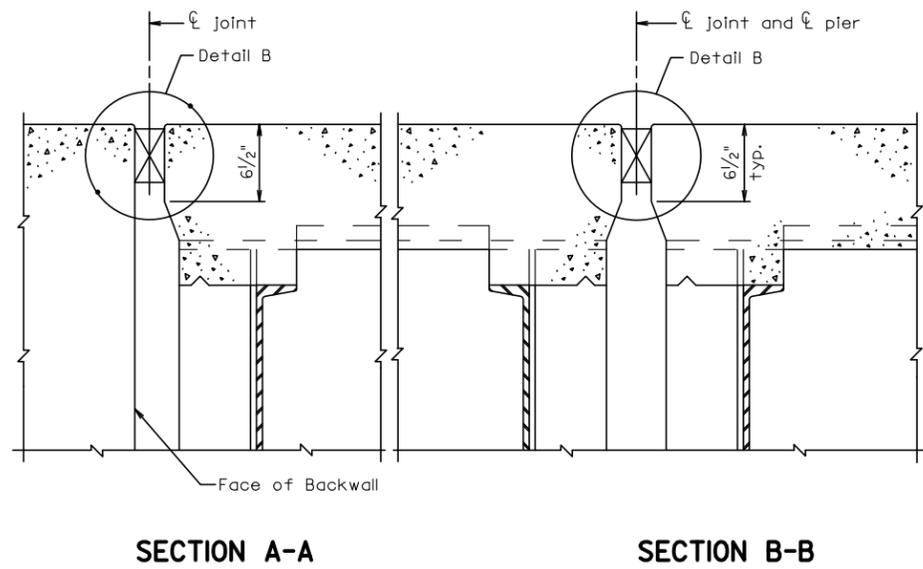
d = Total rotation depth from top of slab to point of rotation on bearing.

Δ's = Deflection of beam at midspan from dead load of concrete deck slab and bolsters. (See Dead Load Deflection Diagram.)

L = Length of span.

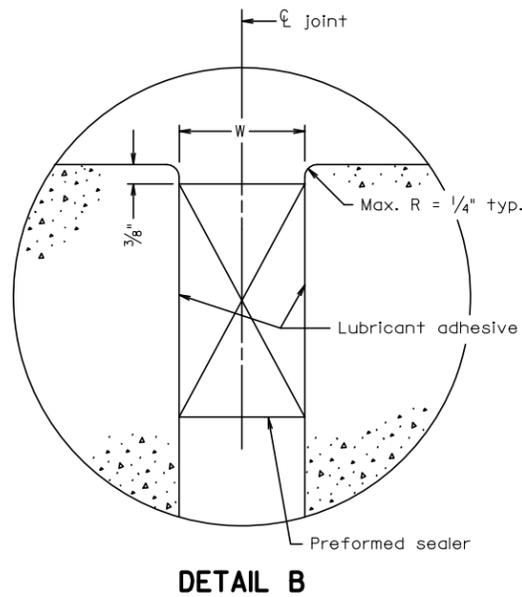
Δ = Compensation for joint opening due to deflection of beam during placement of concrete deck slab and bolsters for the last span placed adjacent to the joint.

All the dimensions are in the same units.

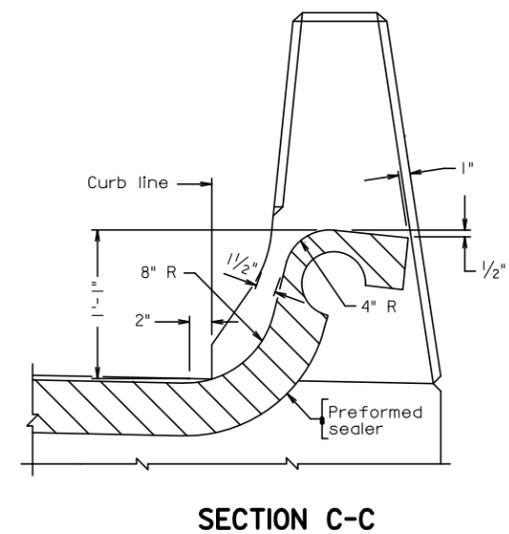


SECTION A-A

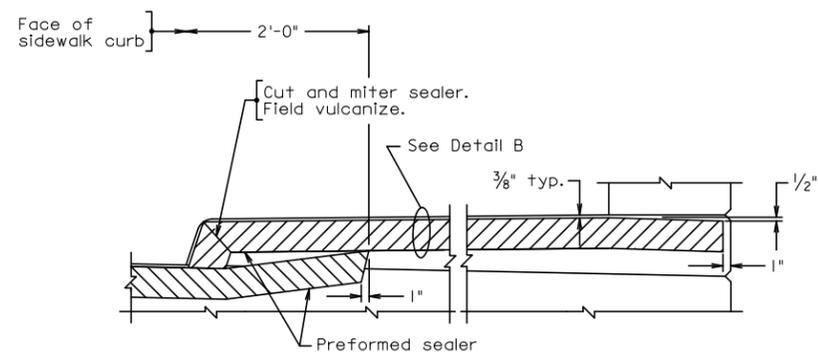
SECTION B-B



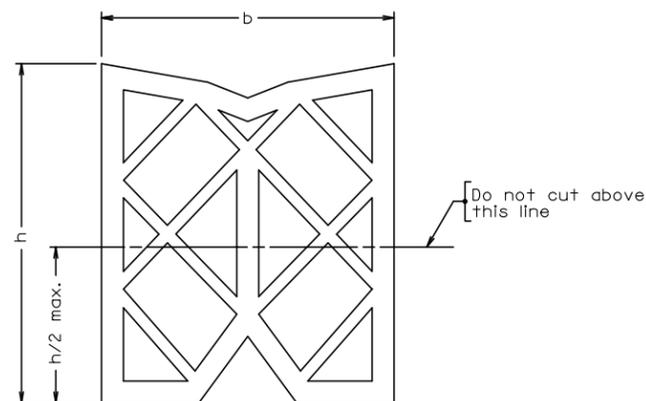
DETAIL B



SECTION C-C



SECTION D-D



PREFORMED ELASTOMERIC JOINT SEALER
In uncompressed state

Not to scale

Structure	Abutment	Pier	Sealer Size b	Sealer Depth h	Joint Width W	t
1815		Pier	3"	3" ±	2"	1/16"
1816	West		2"	2 1/16" ±	1 1/4"	1/16"
	East		1 3/4"	2" ±	1 1/8"	0
8029	West		2"	2 1/16" ±	1 1/4"	3/64"
	East		3"	3" ±	1 7/8"	7/64"
8031	North		3"	3" ±	2"	3/64"
	South		3"	3" ±	1 7/8"	3/32"
8038	North		2 1/2"	2 3/4" ±	1 1/2"	0
	South		4"	4 3/8" ±	2 1/2" **	3/64"

** AFTER SAW CUTTING

PREFORMED ELASTOMERIC JOINT DETAILS (VDOT BEJ-1)

