



16253 Swingley Ridge Rd, Suite 100 St. Louis, MO 63017

636-777-3000  314.432.5812 



December 22, 2014

Jay-Jay Braden
Sr. Traffic Specialist
SW St. Louis County
Missouri Department of Transportation
601 Salt Mill Road
Chesterfield, MO 63107

Dear Mr. Braden:

I am pleased to present the Preliminary Design Plans for the proposed Pedestrian Bridge over Route 100 just east of Highway 109 located in the City of Wildwood. Intuition & Logic was retained by the City of Wildwood to design the bridge and associated facilities. The project consists of a two span, 350-foot total length bridge connecting the trail system on the north and south sides of Route 100. The project includes plazas, trails, center bent in the median, pathway and architectural lighting and provides over 35 feet vertical clearance for Route 100 vehicle traffic.

Please review the attached Preliminary Design Plans and provide your comments along with the permitting requirements associated with this project. If you have any questions or require further information, please call me at (636) 777-3000.

I look forward to hearing from you soon.

Best regards,

A handwritten signature in black ink that reads "Mark & Meyer".

Mark Meyer, P.E.
Principal/Project Manager
Intuition & Logic



LETTER OF TRANSMITTAL

TO: Jay-Jay Braden
Sr. Traffic Specialist
SW St. Louis County
Missouri Department of Transportation
601 Salt Mill Road
Chesterfield, MO 63017

DATE: December 22, 2014

PROJECT: Wildwood Pedestrian Bridge over Route
100

RE: Plan Review Submittal

Please find attached and/or enclosed:

For approval For your use As requested
 For review and comment Amend and resubmit

Quantity	Dated	Description
1	12/18/14	Cover Letter
2	12/18/14	11 x 17 bond Preliminary Plan Sets

COMMENTS:

Mr. Braden:

Please find the above listed items enclosed for your review and comment. Please contact me at (636) 777-3000 or mark@iincworld.com if you have any questions.

Thank you,

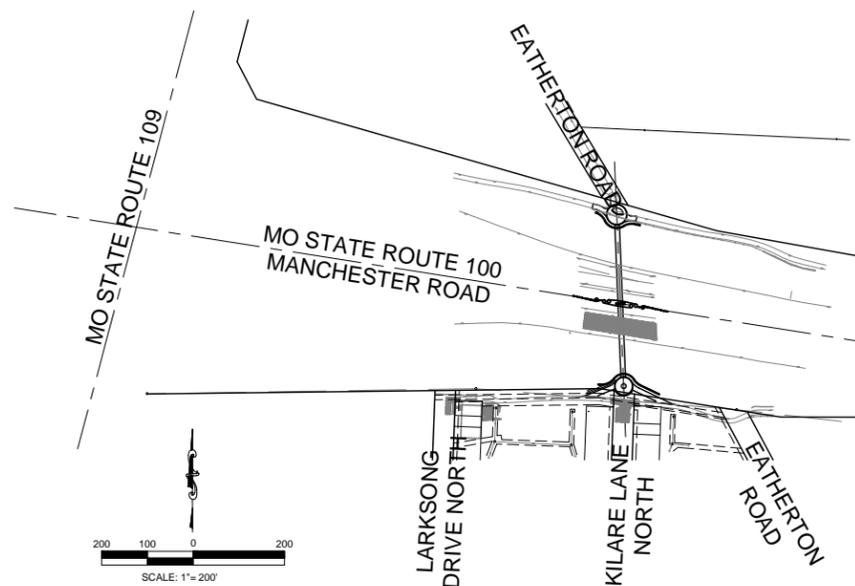

Mark Meyer, PE

EATHERTON ROAD PEDESTRIAN BRIDGE

CITY OF WILDWOOD, MISSOURI

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PROJECT TEAM

OWNER:



CITY OF WILDWOOD
 16860 MAIN ST.
 WILDWOOD, Missouri 63040
 (636) 458-0440

CIVIL ENGINEER:



INTUITION & LOGIC
 16253 Swingley Ridge Road, Suite 100
 St. Louis, Missouri 63017
 (636) 777-3000
 License No. 2000152987

SURVEYOR AND STRUCTURAL ENGINEER:



EFK MOEN
 13523 Barrett Parkway, Suite 250
 St. Louis, Missouri 63021
 (314) 394-3100

GEOTECHNICAL ENGINEER:



GEOTECHNOLOGY
 13523 Barrett Parkway, Suite 250
 St. Louis, Missouri 63021
 (314) 394-3100

PRELIMINARY

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Professional Engineer Seal
 Timothy Patrick Dean, P.E. - Engineer
 MO# E-2008019536

Expiration Date: Dec. 31, 2014

CONSTRUCTION & GRADING NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF "APPROVED" ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.
- ANY DEVIATION FROM THESE DESIGN PLANS MAY CAUSE THE WORK TO BE UNACCEPTABLE.
- ANY UNANTICIPATED CONDITIONS ENCOUNTERED DURING THE CONSTRUCTION PROCESS SHALL BE IDENTIFIED TO THE OWNER/ENGINEER IMMEDIATELY.
- THE STREETS SURROUNDING THESE PROJECT SITES AND ANY STREET USED FOR CONSTRUCTION ACCESS THERETO SHALL BE KEPT FREE FROM MUD AND CONSTRUCTION DEBRIS AND SHALL BE CLEANED THROUGHOUT THE DAY.
- ALL TRASH AND DEBRIS ON SITE, EITHER EXISTING OR FROM CONSTRUCTION, MUST BE REMOVED AND PROPERLY DISPOSED OF OFF SITE.
- NO EXCAVATION SHALL BE MADE SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PROPERTY OR ANY PUBLIC OR PRIVATE STREET WITHOUT SUPPORTING AND PROTECTING SUCH PUBLIC OR PRIVATE STREET OR PROPERTY FROM SETTLING, CRACKING, OR OTHER DAMAGE.
- CONTRACTOR IS RESPONSIBLE FOR MONITORING GRADING OPERATION AND ACCURACY OF FINAL ROUGH GRADES.
- EXISTING SITE TOPOGRAPHY, UTILITIES, RIGHT-OF-WAY AND HORIZONTAL CONTROL SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SURVEY PREPARED BY:

Sabur, Inc.
1751 Ashby Road
St. Louis, MO 63114
(314) 428-1414

SITE CONDITIONS MAY HAVE CHANGED SINCE THE SURVEY WAS PREPARED. CONTRACTOR SHALL VISIT SITE TO FAMILIARIZE THEMSELVES WITH THE CURRENT CONDITIONS.

- BASIS OF BEARINGS IS MISSOURI COORDINATE SYSTEM OF 1983, EAST ZONE GRID NAD83(2007).
- PROJECT BENCHMARKS:

MSD 11-110 "STANDARD ALUMINUM DISK" STAMPED SL-90 1992 DISK IS SET ON THE WEST SIDE OF CENTAUR ROAD; 165' NORTH OF PIPELINE MARKER. APPROXIMATELY 0.2 (MILES) NORTH OF THE INTERSECTION OF WILD HORSE CREEK ROAD AND CENTAUR ROAD.
ELEV.=482.72

PROJECT BENCHMARK 02:
"SQ" ON TOP OF SOUTHWEST WINGWALL OF CENTAUR ROAD BRIDGE OVER BATES CREEK; NORTH OF THE INTERSECTION OF CENTAUR ROAD AND WILD HORSE CREEK ROAD.
ELEV.=477.62

- CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.

- ALL EXISTING TOPOGRAPHY, UNDERGROUND UTILITIES, STRUCTURES AND ASSOCIATED FACILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS AND ELEVATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER FACILITIES, THE EXISTENCE OF WHICH ARE NOT PRESENTLY KNOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UTILITIES LOCATED IN THE FIELD PRIOR TO EXCAVATION OR CONSTRUCTION.



Call BEFORE you DIG
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MISSOURI ONE-CALL SYSTEM, INC.

- BEFORE EXCAVATING OVER OR ADJACENT TO ANY EXISTING UTILITIES, CONTRACTOR SHALL NOTIFY THE OWNER OF SUCH UTILITIES TO ENSURE THAT PROTECTIVE WORK WILL BE COORDINATED AND PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER OF THE UTILITY INVOLVED. IF ANY EXISTING SERVICE LINES, UTILITIES AND UTILITY STRUCTURES WHICH ARE TO REMAIN IN SERVICE ARE UNCOVERED OR ENCOUNTERED DURING THIS OPERATION, THEY SHALL BE SAFEGUARDED, PROTECTED FROM DAMAGE AND SUPPORTED IF NECESSARY.
- CONTRACTOR SHALL NOT REMOVE ANY TREE OR FENCE, UNLESS MARKED FOR REMOVAL ON THE PLANS WITHOUT PRIOR APPROVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AS SHOWN ON THE STORMWATER POLLUTION PREVENTION PLAN.
- ALL APPLICABLE PROVISIONS OF THE CURRENT OCCUPATIONAL SAFETY AND HEALTH ACT ARE HEREIN INCORPORATED BY REFERENCE.

- THE CONTRACTOR SHALL SUBSCRIBE TO ALL GOVERNING REGULATIONS AND SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO STARTING WORK. THE CONTRACTOR, BY USING THESE PLANS FOR THEIR WORK, AGREE TO HOLD HARMLESS ILINC ENGINEERING, INC., THE LOCAL MUNICIPALITY, THEIR EMPLOYEES AND AGENTS AND THE OWNER WHILE ACTING WITHIN THE SCOPE OF THEIR DUTIES FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND THE COST OF DEFENSE ARISING OUT OF CONTRACTOR(S) PERFORMANCE OF THE WORK DESCRIBED HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, HIS AGENTS, THE ENGINEER, HIS EMPLOYEES AND AGENTS.

- THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS WHERE HIS/HER OPERATIONS ABOUT PUBLIC THOROUGHFARES AND ADJACENT PROPERTY IN ACCORDANCE WITH LOCAL ORDINANCE AND PROJECT SPECIFICATIONS.

- AREAS OUTSIDE THE R.O.W. LINE OR CONSTRUCTION LIMIT LINE IMPACTED BY OPERATIONS OF THE CONTRACTOR SHALL BE RETURNED TO THE STATE IT WAS FOUND PRIOR TO NEW CONSTRUCTION, EXCEPT WHERE NEW WORK IS SHOWN.

- STREET PAVING AND CURBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE AND IF DAMAGED, SHALL BE REPLACED PROMPTLY IN CONFORMANCE WITH THE MUNICIPALITY OR PROJECT SPECIFICATIONS.

- PROPOSED ELEVATIONS INDICATE FINISHED CONDITIONS. FOR ROUGH GRADING ELEVATIONS ALLOW FOR THICKNESS OF PROPOSED IMPROVEMENTS (ROADS, SIDEWALKS, DRIVE, ROCK, ETC.) OR TOPSOIL AS INDICATED ON DRAWINGS.

- ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

- THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PROVIDE CABLE TV, PHONE, ELECTRIC, GAS, IRRIGATION AND OTHER UTILITY SERVICES DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SITE LAYOUTS FOR THESE UTILITIES AND SHALL COORDINATE AND PROVIDE CONDUIT CROSSINGS AS REQUIRED. THIS COORDINATION SHALL BE CONSIDERED INCIDENTAL TO CONTRACTOR WITH OWNER. ANY CONFLICTS IN UTILITIES SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.

- ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT ALONG LIMITS OF PROPOSED REMOVAL BEFORE COMMENCEMENT OF PAVEMENT REMOVAL.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE OWNER OF THE ROADWAY.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION. BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH PROJECT SPECIFICATIONS. ALL TRAFFIC CONTROL WORK SHALL BE DONE IN ACCORDANCE WITH THE MUTCD AND MODOT REQUIREMENTS.

- THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS/HER WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS BEFORE CONSTRUCTION BEGINS.

- ALL SEWERS AND STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH MSD STANDARD CONSTRUCTION SPECIFICATIONS OF 2009.

ABBREVIATIONS

ATG	ADJUST TO GRADE
B.M.	BENCH MARK
CFS	CUBIC FEET PER SECOND
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CTV	CABLE TELEVISION
DIP	DUCTILE IRON PIPE
DND	DO NOT DISTURB
E	ELECTRIC
ELEV. EL	ELEVATION
ESMT	EASEMENT
EXIST, EX	EXISTING
FES	FLARED END SECTION
FH	FIRE HYDRANT
FL	FLOW LINE
FT	FEET
G	GAS
HDPE	HIGH DENSITY POLYETHYLENE
IN	INCHES
IP	IRON PIN
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
PCB	PHONE CABLE BOX
PDE	PERMANENT DRAINAGE EASEMENT
PED	PEDESTAL
PGL	PROFILE GRADE LINE
PPED	POWER PEDESTAL
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SAN	SANITARY
S.L.	SLOPE LIMIT
STA	STATION
T	TELEPHONE
TBA	TO BE ABANDONED
TBR	TO BE REMOVED
TBR&R	TO BE REMOVED AND REPLACED
TBR&RBO	TO BE REMOVED AND REPLACED BY OTHERS
TBA&F	TO BE ABANDONED AND FILLED
TCE	TEMPORARY CONSTRUCTION EASEMENT
TPED	TELEPHONE PEDESTAL
TSCL	TEMPORARY SLOPE CONSTRUCTION LIMIT
TVPED	TELEVISION PEDESTAL
TYP	TYPICAL
VCP	VITRIFIED CLAY PIPE
W	WATER

LEGEND

EXISTING		NEW
	PIPE	
	FENCE	
	FLOWLINE	
	MAJOR CONTOURS	
	MINOR CONTOURS	
	SLOPE LIMITS	
	PROPERTY LINE	
	EASEMENTS	
	PROFILE GRADE	

- BUILDINGS AND STRUCTURES
- GUARD RAIL
- CONCRETE RIGHT-OF-WAY MARKER
- STEEL RIGHT-OF-WAY MARKER
- LOCATION SURVEY MARKER
- UTILITIES
 - FIBER OPTICS
 - OVERHEAD TELEPHONE
 - UNDERGROUND TELEPHONE
 - OVERHEAD POWER
 - UNDERGROUND POWER
 - GAS
 - WATER
- MANHOLE
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- DROP INLET
- DITCH BLOCK
- GROUND MOUNTED SIGN
- LIGHT POLE
- H-FRAME POWER POLE
- TELEPHONE PEDESTAL
- FENCE
- GATE
- STLC

EXISTING	NEW



WILDWOOD

INTUITION LOGIC
ILINC Engineering Incorporated
MO Certificate of Authority
2000152987
16251 Svingley Ridge Rd.
Oxfield, MO 63017
Phone: (636) 777-3000
Fax: (314) 432-5612

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Wildwood, Missouri**

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Mark Edward Meyer
E-2000150043

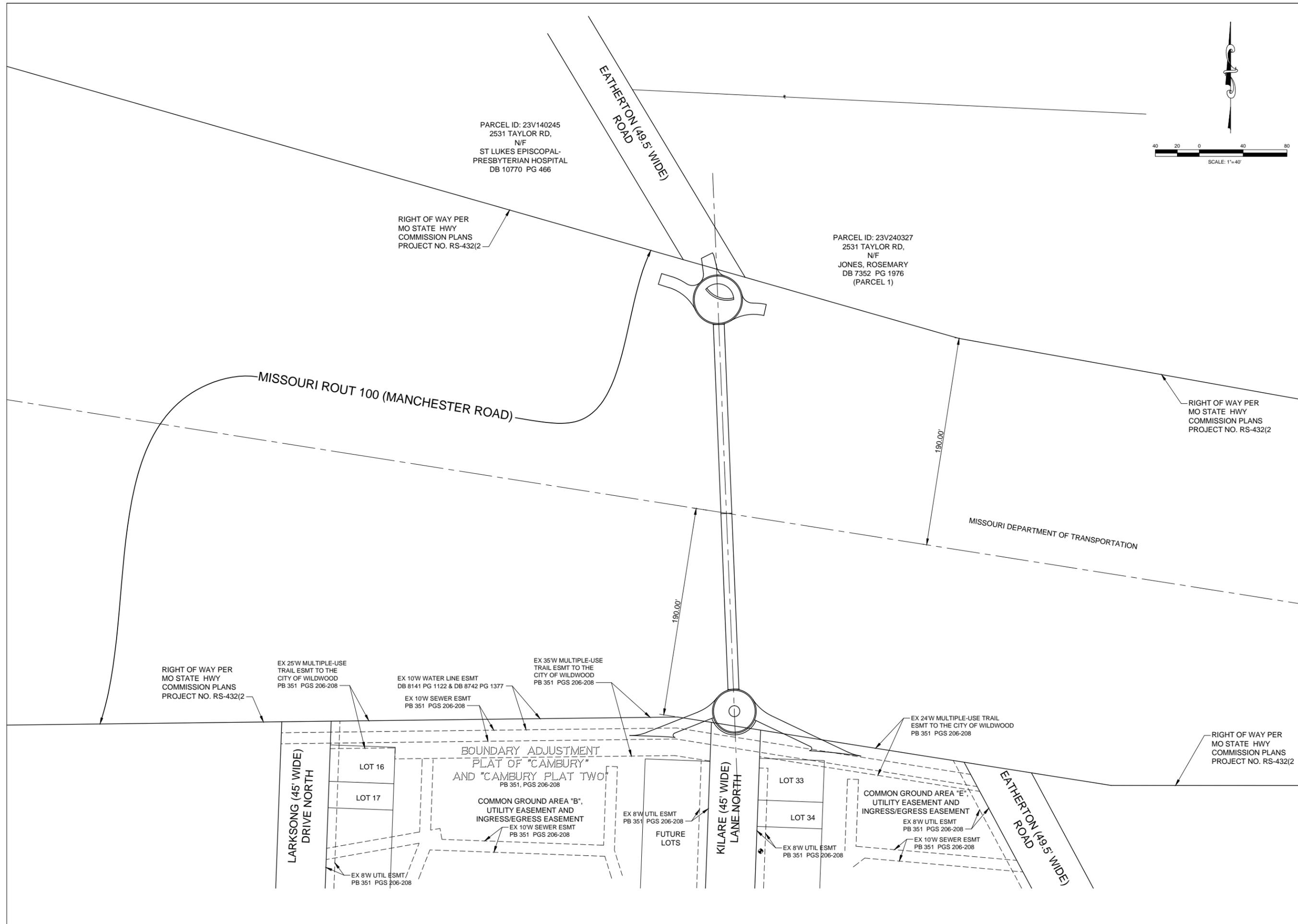
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Design/Drawn by: JDF
Checked by: MEM
Approved by: MEM

PROJECT NO. 1405
SHEET TITLE:
LEGEND AND NOTES

SHEET NUMBER:
2 OF XX



PARCEL ID: 23V140245
 2531 TAYLOR RD,
 N/F
 ST LUKES EPISCOPAL-
 PRESBYTERIAN HOSPITAL
 DB 10770 PG 466

PARCEL ID: 23V240327
 2531 TAYLOR RD,
 N/F
 JONES, ROSEMARY
 DB 7352 PG 1976
 (PARCEL 1)



INTUITION
 LOGIC
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 MO Certificate of Authority
 # 2000152987
 16253 Svingley Ridge Rd.
 Chesterfield, MO 63017
 Phone (636) 777-3000
 Fax (314) 432-5612

**Eatherton Road
 Pedestrian Bridge
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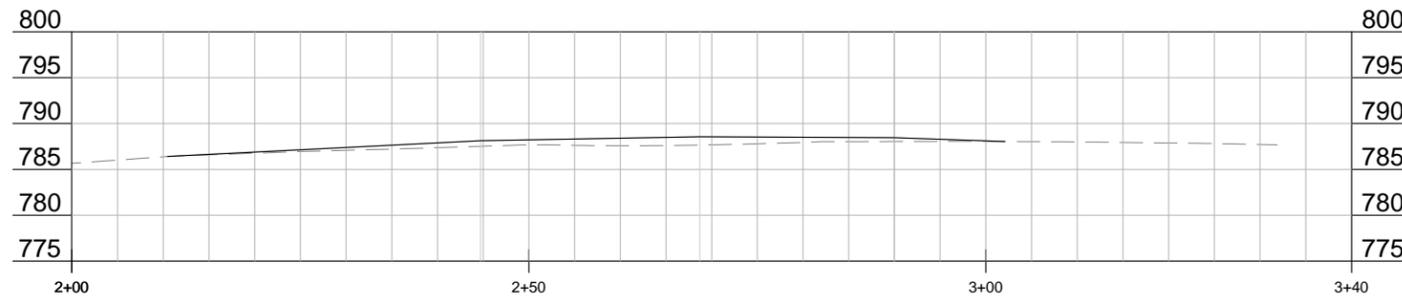
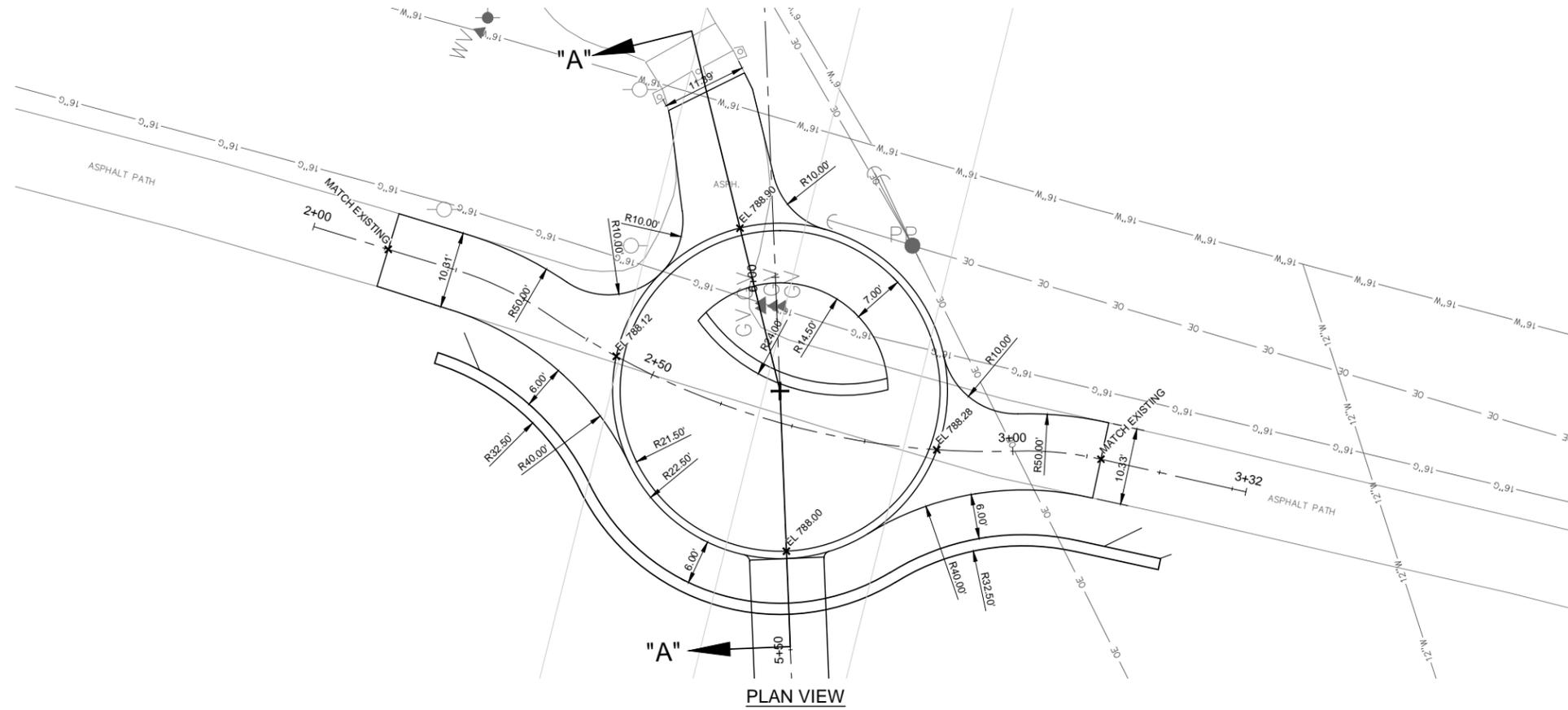
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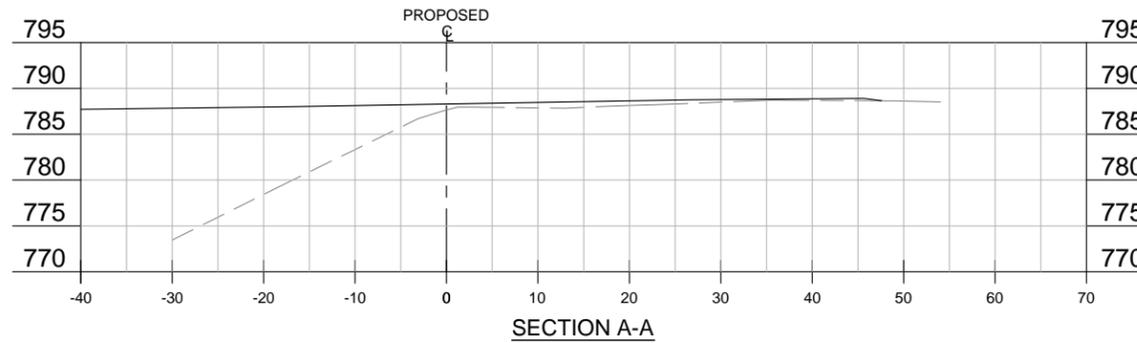
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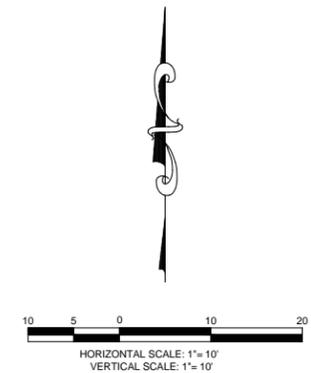
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 3 OF XX



NORTH PLAZA TRAIL REALIGNMENT CENTERLINE
 PROFILE VIEW



SECTION A-A



X NORTH PLAZA



**INTUITION
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 MO Certificate of Authority
 # 2000152987
 2225 S.W.
 Chesapeake Ridge Rd.
 Chesterfield, MO 63017
 Phone (636) 777-3000
 Fax (314) 432-5612

Eatherton Road
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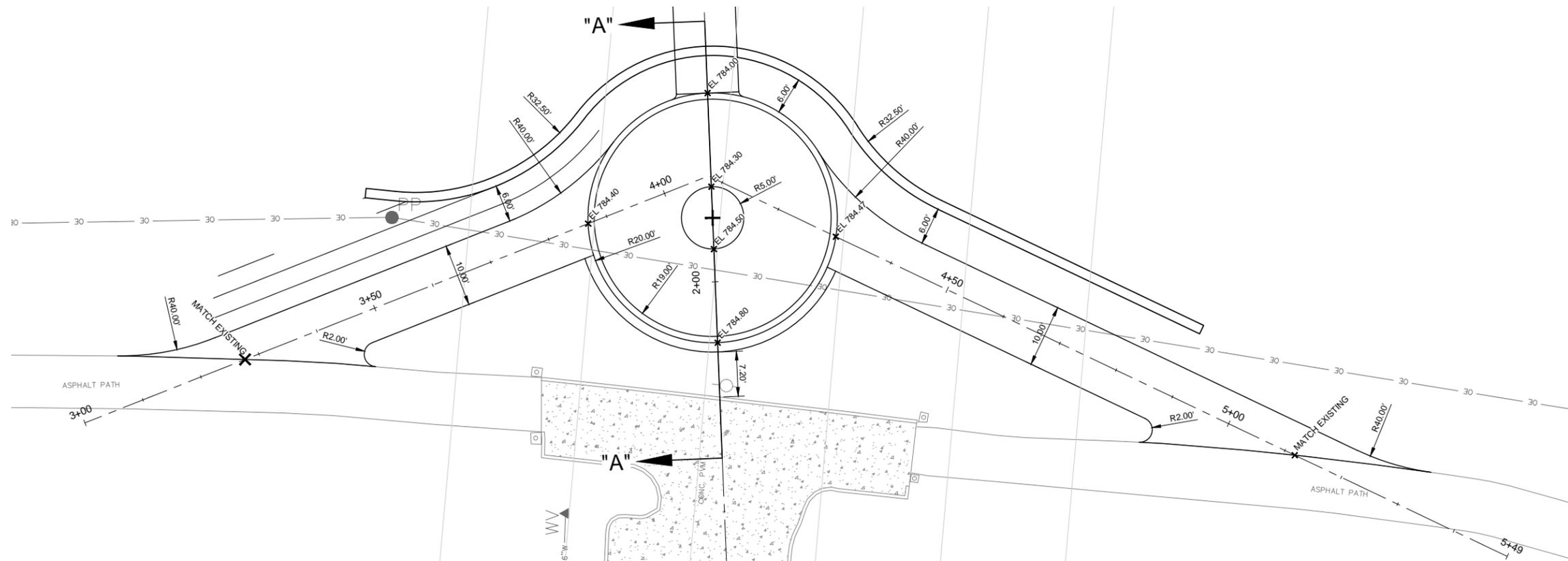
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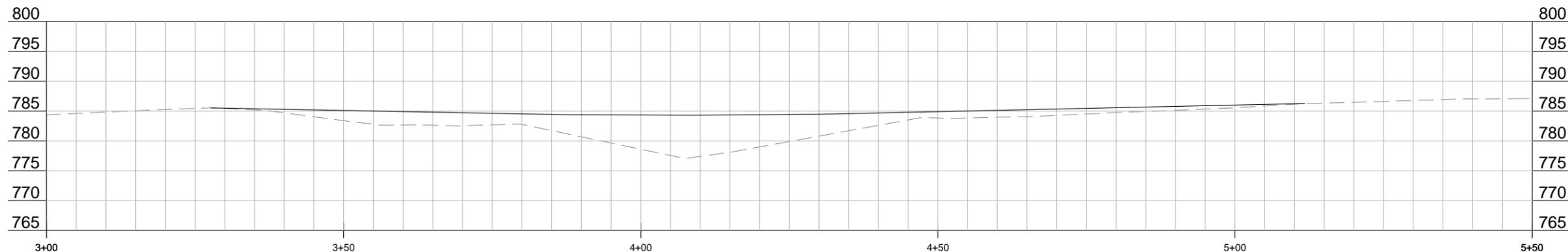
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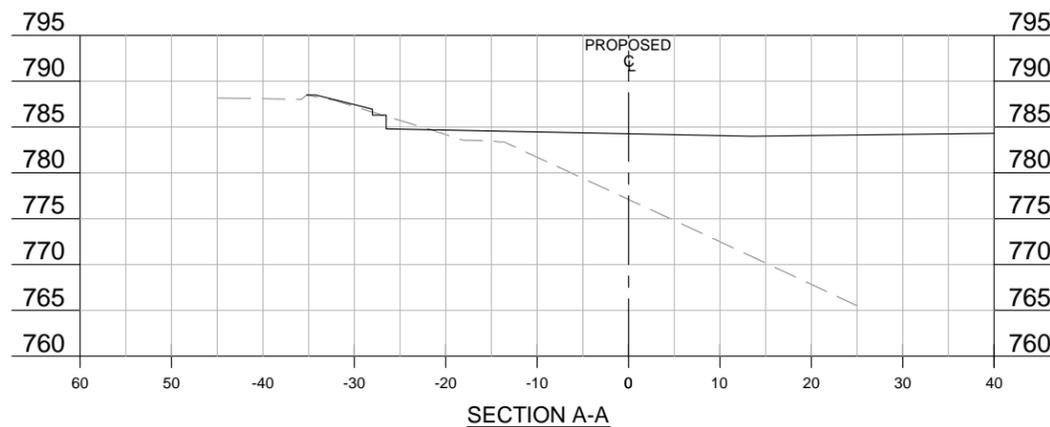
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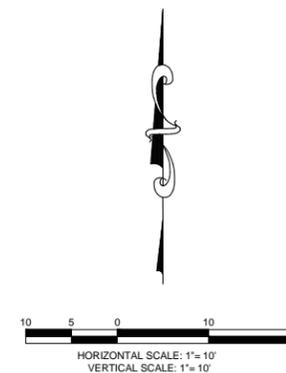
PLAN VIEW



SOUTH PLAZA TRAIL REALIGNMENT CENTERLINE
PROFILE VIEW



SECTION A-A



X SOUTH PLAZA



**INTUITION
LOGIC**
 I/LINC Engineering Incorporated
 MO Certificate of Authority
 # 2000152987
 2525 S.W. 15th St.
 Chesterfield, MO 63017
 Phone (636) 777-3000
 Fax (314) 432-5612

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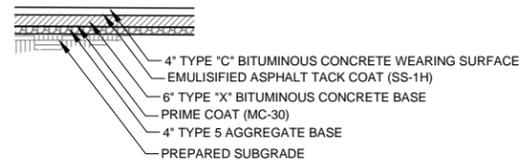
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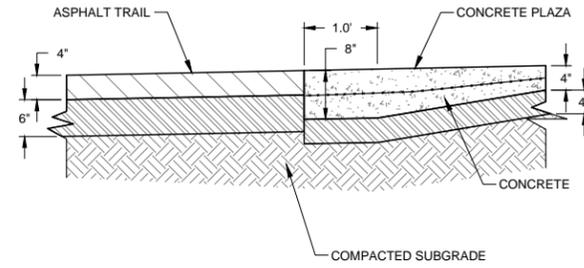
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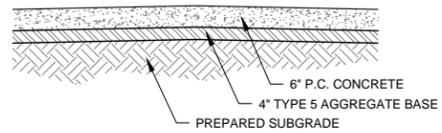
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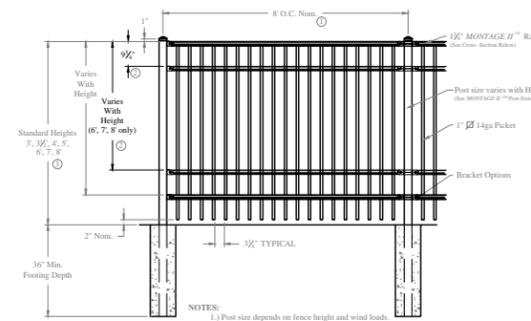
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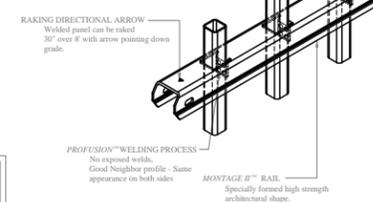
X CONCRETE EDGE NTS



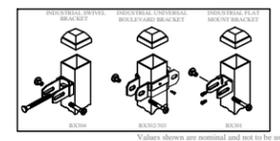
X CONCRETE PLAZA NTS



NOTES:
 1.) Post size depends on fence height and wind load. See MONTAGE H™ specifications for post sizing chart and dimensions.
 2.) Third & fourth rail optional.
 3.) Available in Flush Bottom.

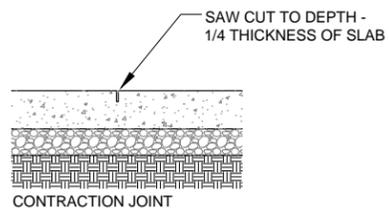


PROFUSION™ WELDING PROCESS
 No exposed welds.
 Good neighbor profile - Same appearance on both sides.



*Values shown are minimal and not to be used for installation purposes. See product specification for installation requirements.

X FENCE DETAIL NTS



X CONCRETE PLAZA SAWCUT JOINTS NTS



INTUITION LOGIC
 ILINC Engineering Incorporated
 MO Certificate of Authority
 # 2000152987
 2525 S.W. Longley Ridge Rd.
 Chesterfield, MO 63017
 Phone (636) 777-3000
 Fax (314) 432-5612

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 Mark Edward Meyer
 E-2000150043

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PROJECT NO. 1405

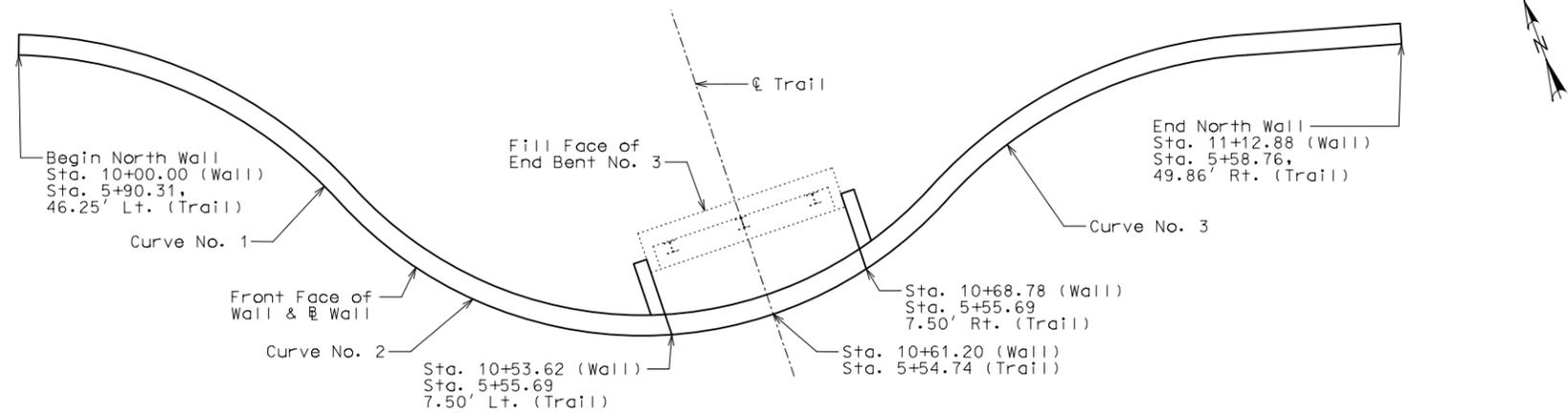
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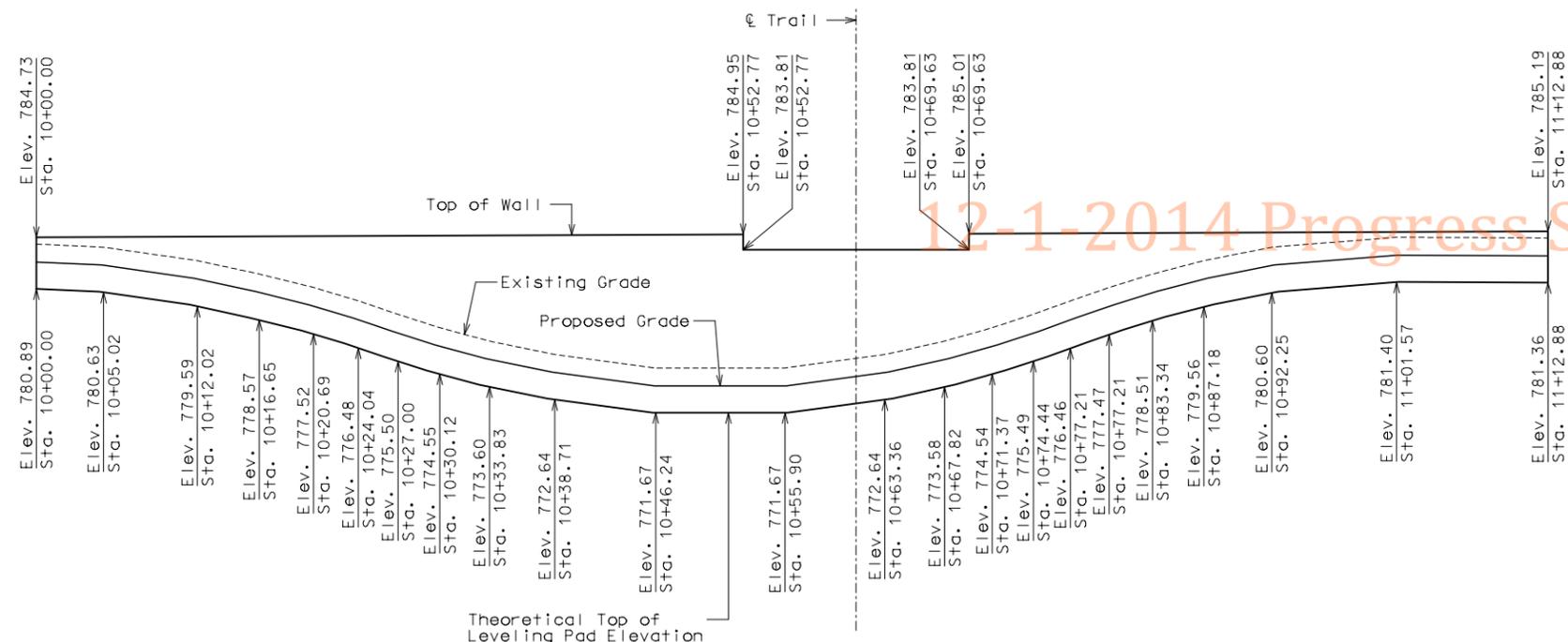
SHEET NUMBER:

C4 OF XX

Path: Y:\414021_Wildwood Ped Bridge\00\NWB\1\egde\Final\101sheets\1_1 North Wall Plan and Elev.dgn
 Plotted on: 12/1/2014



PLAN



DEVELOPED ELEVATION
 Note: Leveling pad not shown for clarity. *

* Wall contractor shall show the following items on the design drawings and/or on the fabricator shop drawings.

- Leveling pad horizontal.
- Leveling pad length and step elevations shall be based on wall manufacturer's recommendation. Top of leveling pad elevations shall not be higher than theoretical top of leveling pad elevations shown on these plans.

* Minimum embedment = maximum (2 feet, embedment based on Geotechnical Report and Global Stability requirements).

Curve No. 1		Curve No. 2		Curve No. 3	
PI	10+14.07	PI	10+59.32	PI	10+89.62
PC	10+00.00	PRC	10+26.56	PRC	10+76.32
PRC	10+26.56	PT	11+01.57	PT	11+01.57
Δ	46° 48' 57.7" (RT)	Δ	95° 02' 59.9" (LT)	Δ	44° 30' 48.9" (RT)
D	176° 17' 21.4"	D	190° 59' 23.1"	D	176° 17' 40.9"
L	26.56'	L	49.77'	L	25.25'
T	14.07'	T	32.77'	T	13.30'
R	32.50'	R	30.00'	R	32.50'

GENERAL NOTES:
 Design Specifications:
 2002 - AASHTO 17th Edition
 Load Factor Design
 Seismic Performance Category B

All concrete for leveling pad shall be Class B or B-1 with f'c = 4000 psi.

The MSE wall system shall be built in accordance with Sec 720.

The MSE wall system shall be a small block wall system.

Factor of safety shall be 2.0 for overturning, 1.5 for sliding and 2.0 for bearing.

For seismic design the factor of safety shall be 1.5 for overturning and 1.1 for sliding.

$\phi =$ ° for backfill material to be retained by the mechanically stabilized earth wall system.

$\phi =$ ° for foundation material the wall is to rest on.

$\phi \geq 34^\circ$ for the select granular backfill for structural systems.

Design $\phi = 34^\circ$ for the select granular backfill for structural systems.

A filter cloth meeting the requirements for a Separation Geotextile material shall be placed between the select granular backfill for structural systems and the backfill being retained by the mechanically stabilized earth wall system.

The top and bottom elevations are given for a vertical wall. If a battered small block wall system is used, the height of the wall shall be adjusted as necessary to fit the ground slope and the concrete leveling pad shall be adjusted as necessary to account for the wall batter. If a fence is built on an extended gutter, then the height of the wall shall be adjusted further.

The baseline of the wall shown is for a vertical wall. If a battered wall system is used, this baseline shall correspond to Elevation.

The contractor shall be solely responsible to coordinate construction of the wall with bridge and roadway construction and ensure that the bridge and roadway construction, resulting or existing obstructions, shall not impact the construction or performance of the wall. Soil reinforcement shall be designed and placed to avoid damage by pile driving, guardrail post installation, utility and sign foundations. (See Roadway and Bridge Plans.)

The splay angle should be less than 15° and tensile capacity of splayed reinforcement shall be reduced by the cosine of the splay angle.

No reinforcement shall be left unconnected to the wall face or arbitrarily cut/bent in the field to avoid obstruction.

Where interference between the vertical obstruction and the soil reinforcement is unavoidable, the design of the wall near the obstruction may be modified using one of the alternatives in FHWA-NHI-10-24, Section 5.4.2. Show detail layout on the drawings. For wall designs with horizontal obstructions in reinforced soil mass, see FHWA-NHI-10-024, Section 5.4.3

⊗ Indicates location of borings.

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GENERIC DETAILS FOR NORTH WALL

STATE ROAD FROM ROUTE 109 TO ROUTE 141

ABOUT 0.2 MILES EAST OF ROUTE 109

STA. 369+30.79 ± @ RTE 100

Detailed OCT 2014
 Checked OCT 2014

Note: This drawing is not to scale. Follow dimensions.

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 Civil Engineering Design
 13523 Barrett Parkway Dr
 Suite 250
 St. Louis, MO 63021 Phone 314-394-3100
 Missouri Certificate of Authority: 001578

Eatherton Road
 Pedestrian Bridge
 Wildwood, Missouri

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Date: 12/1/2014
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 Checked by: CTW
 Approved by: CDL

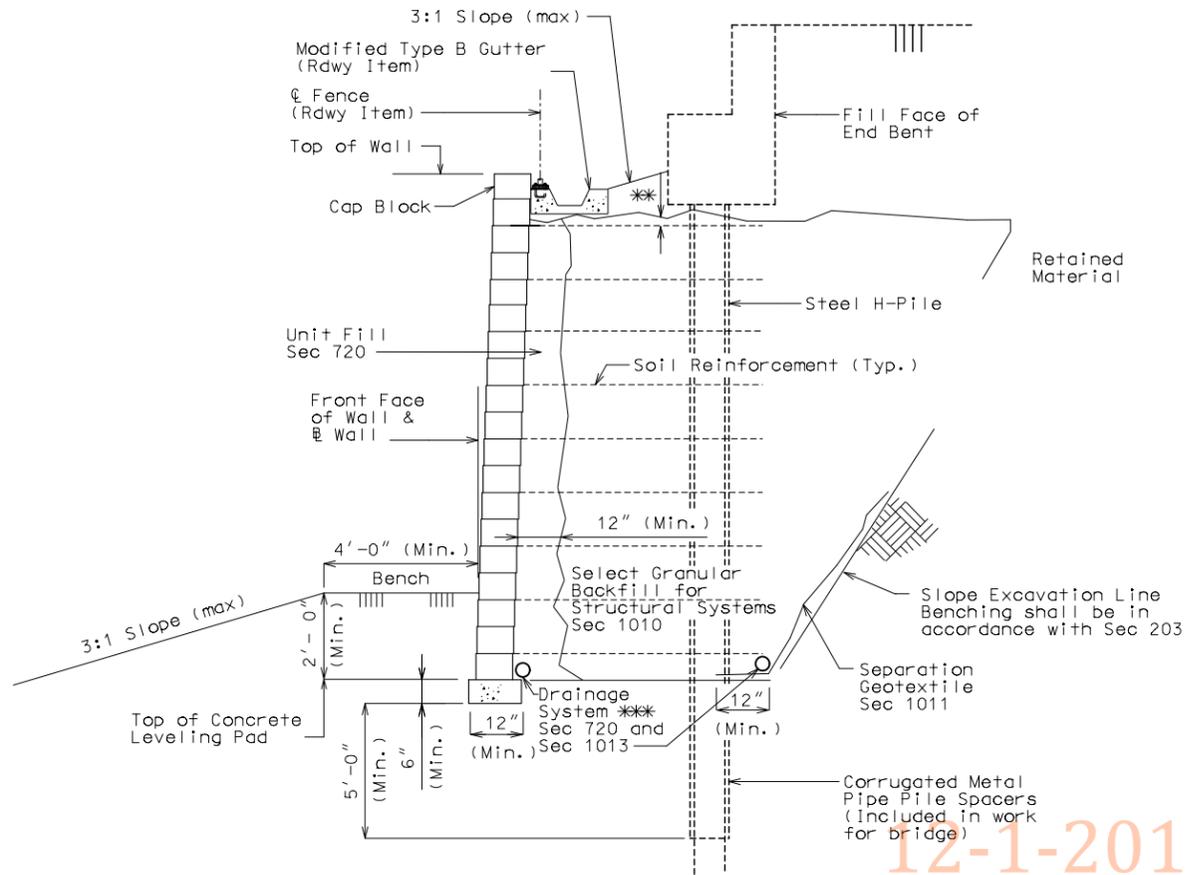
PROJECT NO. 1405

SHEET TITLE:
 NORTH WALL
 GENERAL PLAN
 AND ELEVATION

SHEET NUMBER:

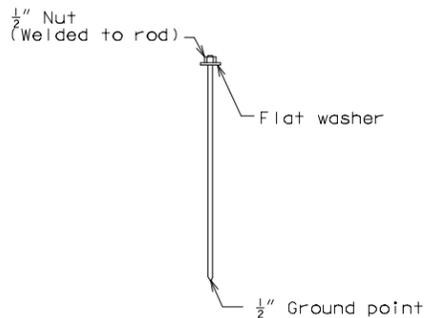
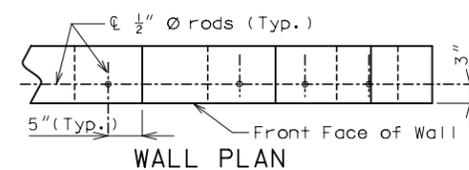
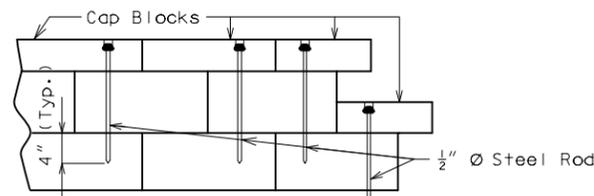
S1.1

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED



TYPICAL SECTION THRU SMALL BLOCK WALL

Note:
A minimum horizontal bench 4'-0" wide shall be provided in front of the wall



DETAILS OF 1/2" THREADED ROD OR REINFORCING ROD

Note:

Holes shall be 5/8" round and extended 4" into the third layer of blocks, recessed 2" deep by 1 1/2" round.

Rods or reinforcing bars shall be secured by an approved resin anchor system in accordance with Sec 1039.

Recess hole shall be backfilled with non-shrink cement grout.

** Topmost layer of reinforcement shall be fully covered with select granular backfill for structural systems, as approved by the wall manufacturer, before placement of the Separation Geotextile.

*** Minimum 6" diameter perforated PVC or PE pipe, unless larger size pipes are required by design by wall manufacturer.

Adjustment in the vertical alignment of the drainage pipes from that depicted in the plans may be necessary to ensure positive flow out of the drainage system.

Outlet ends of pipes shall be located to avoid clogging or flow into the drainage system.

For Modified Type B Gutter and Fence Post Connection Details, see Missouri Standard Plans No. 607.11.

For Type B Gutter details, see Missouri Standard Plans No. 609.00.

MSE Wall Systems Data Table

Proprietary Wall Systems		Combination Wall Systems			
Manufacturer	System	Facing Unit Manufacturer	Facing Unit	Geogrid Manufacturer	Geogrid

MSE Wall Systems Data Table is to be completed by construction personnel to record the manufacturer of the proprietary wall system or the manufacturers of the combination wall system that was used for constructing the MSE wall.

Estimated Quantities for MSE Wall

Item	sq. foot	Total
Mechanically Stabilized Earth Wall Systems		911

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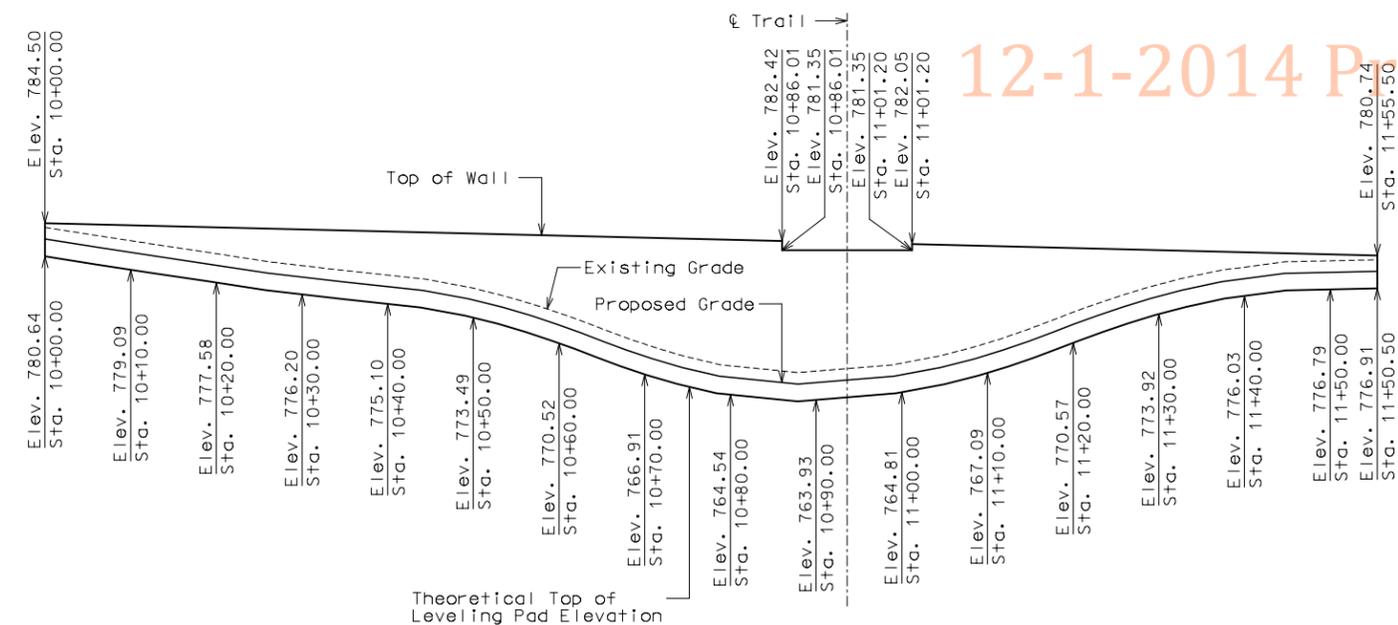
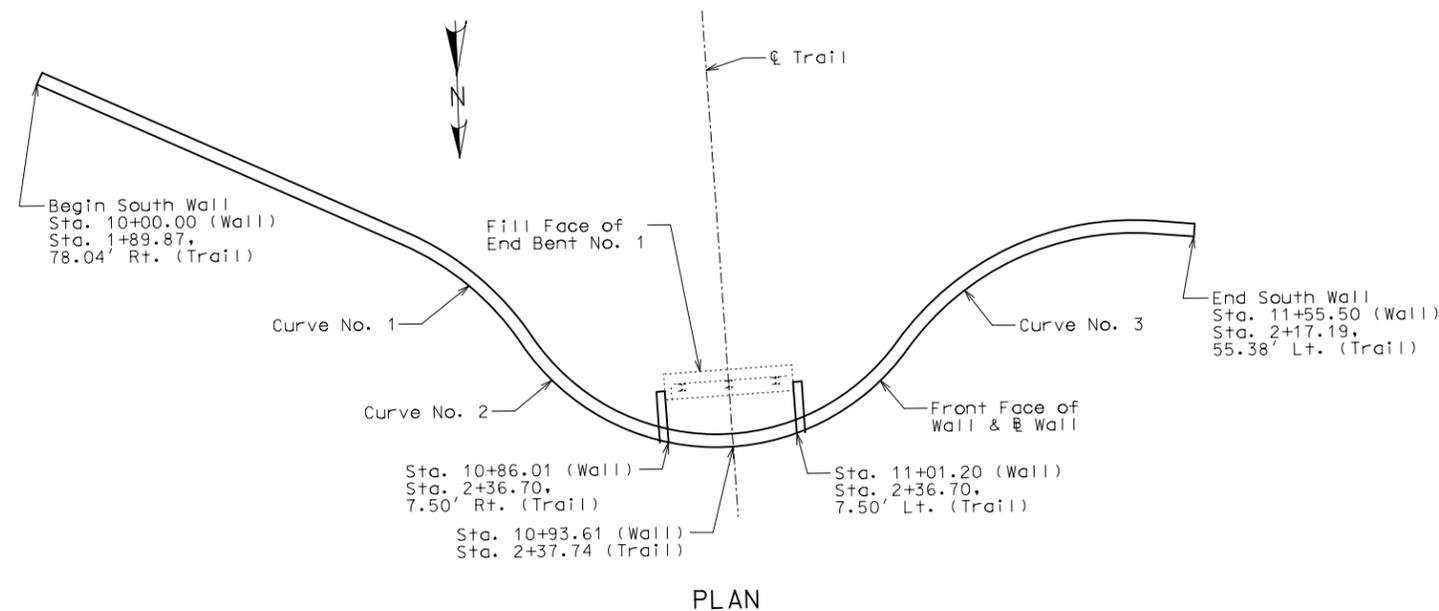
Date: 12/1/2014
Deskin/Drawn by: BTS
Checked by: CTW
Approved by: CDL

PROJECT NO. 1405

SHEET TITLE:
NORTH WALL
DETAILS

SHEET NUMBER:
S1.2

Path: Y:\414021_Wildwood Ped Bridge\03\NB\Bridging\1_South Wall Plan and Elev.dgn
 Plotted on: 12/1/2014



12-1-2014 Progress Set

GENERAL NOTES:
 Design Specifications:
 2002 - AASHTO 17th Edition
 Load Factor Design
 Seismic Performance Category B

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** Minimum embedment = maximum (2 feet, embedment based on Geotechnical Report and Global Stability requirements).

Curve No.	PI	PRC	PT	Δ	D	L	T	R
Curve No. 1	10+55.96	10+46.58	10+64.85	32° 12' 22.8" (RT)	176° 17' 40.9"	18.27'	9.38'	32.50'
Curve No. 2	11+04.17	10+64.85	11+17.67	110° 04' 02.1" (LT)	208° 20' 53.8"	52.83'	39.32'	27.50'
Curve No. 3	11+35.79	11+17.67	11+50.72	58° 15' 39.7" (RT)	176° 17' 40.9"	33.05'	18.11'	32.50'

Note: This drawing is not to scale. Follow dimensions.

Detailed OCT 2014
 Checked OCT 2014

GENERIC DETAILS FOR SOUTH WALL

STATE ROAD FROM ROUTE 109 TO ROUTE 141
 ABOUT 0.2 MILES EAST OF ROUTE 109
 STA. 369+30.79 ± ⊗ RTE 100

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 Checked by: CTW
 Approved by: CDL

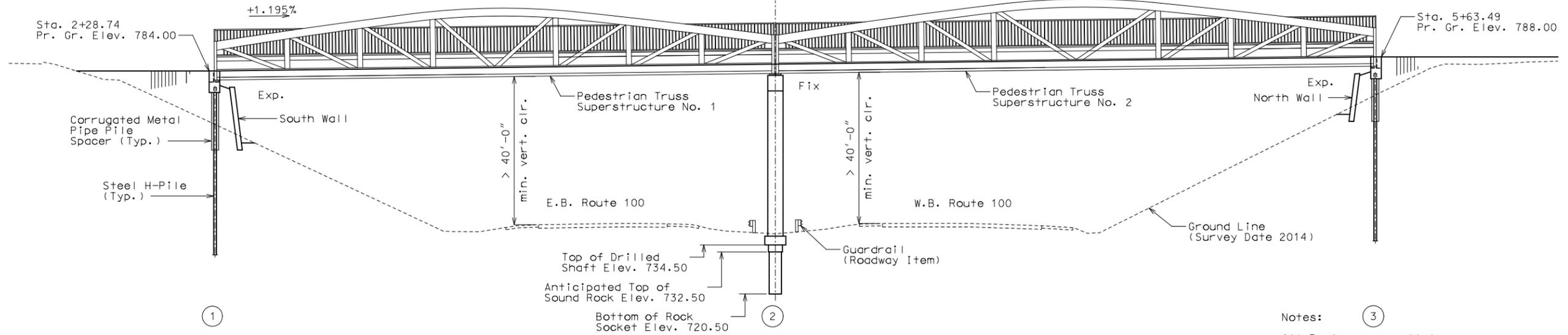
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SHEET TITLE:
 SOUTH WALL
 GENERAL PLAN
 AND ELEVATION

SHEET NUMBER:
 S2.1

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2 SPAN (160'-2" - 171'-6") BOWSTRING ARCH TRUSS



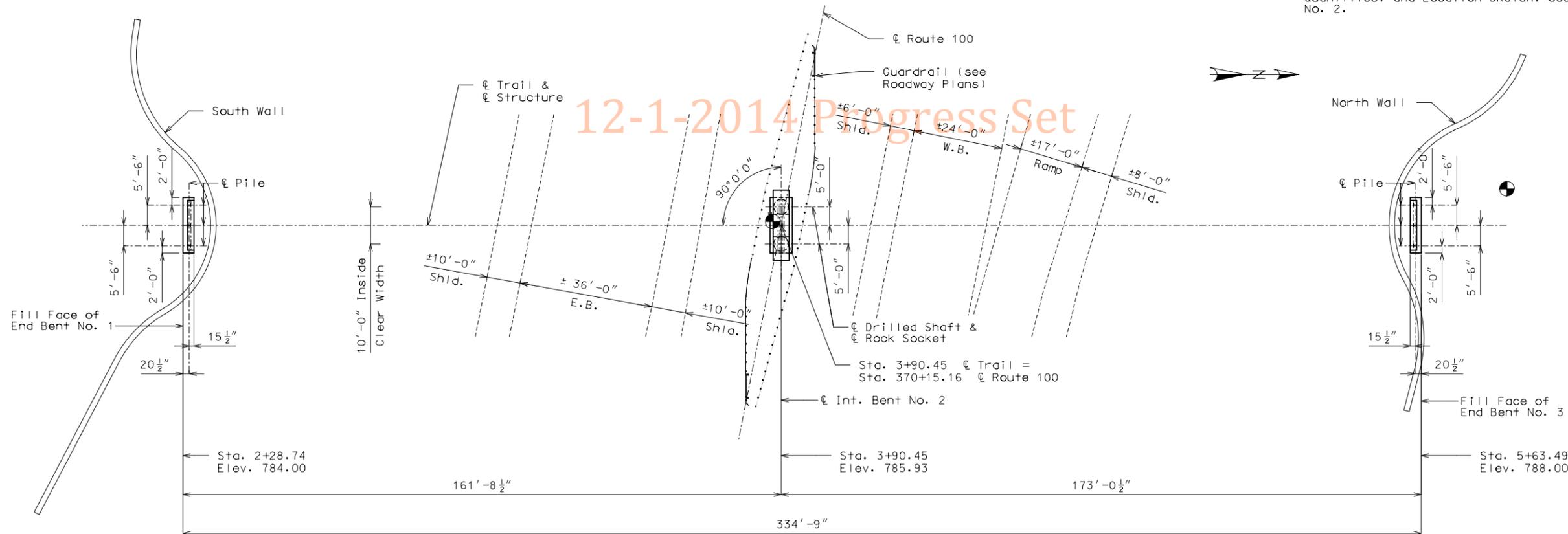
GENERAL ELEVATION

Notes: (3)

All Bents are parallel.

All dimensions are horizontal.

For General Notes, Foundation Data, Estimated Quantities, and Location Sketch, see Sheet No. 2.



PLAN

⊕ Indicates location of borings.

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Detailed OCT 2014
Checked OCT 2014

Note: This drawing is not to scale. Follow dimensions.

**BRIDGE: OLD EATHERTON ROAD (TRAIL)
OVER ROUTE 100**
STATE ROAD FROM ROUTE 109 TO ROUTE 141
ABOUT 0.2 MILES EAST OF ROUTE 109
STA. 370+15.16 ± & RTE 100

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S3.1

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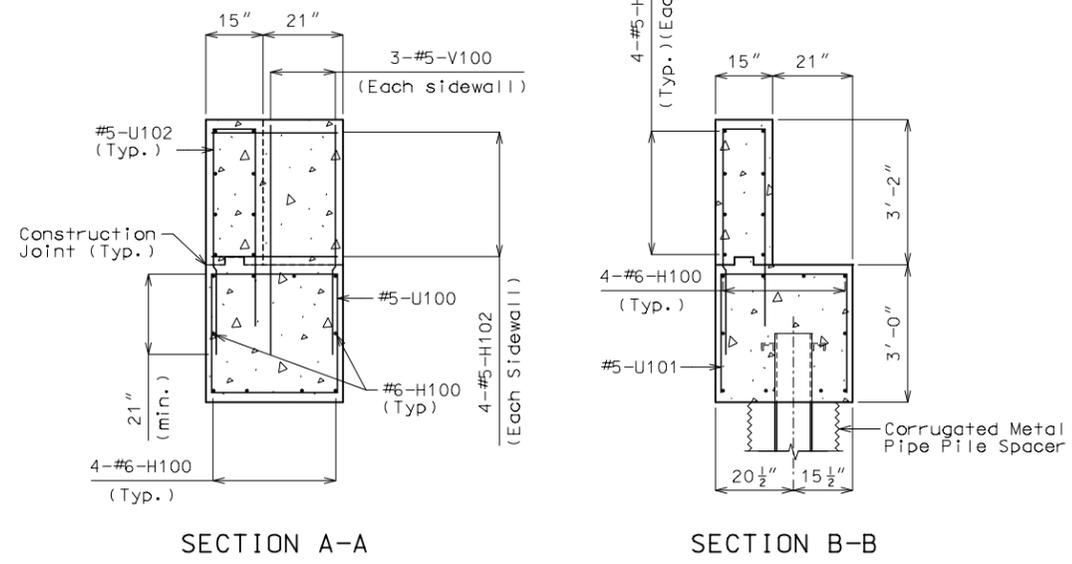
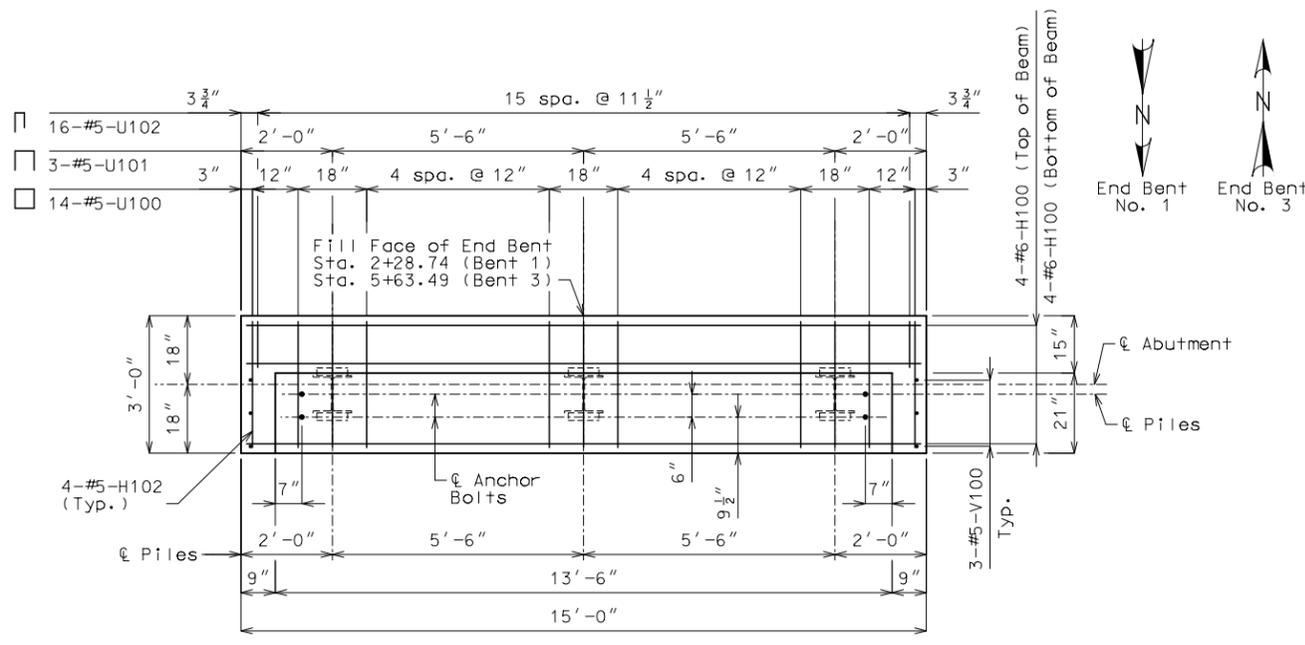
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SHEET TITLE:
**DETAILS OF
 END BENTS**

SHEET NUMBER:

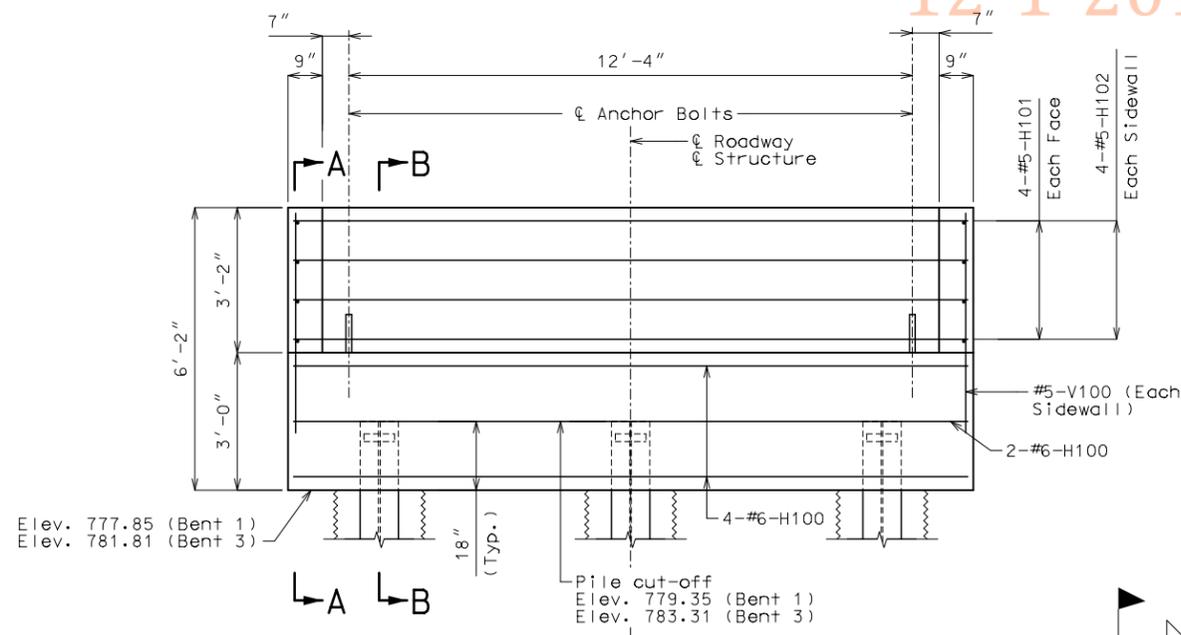
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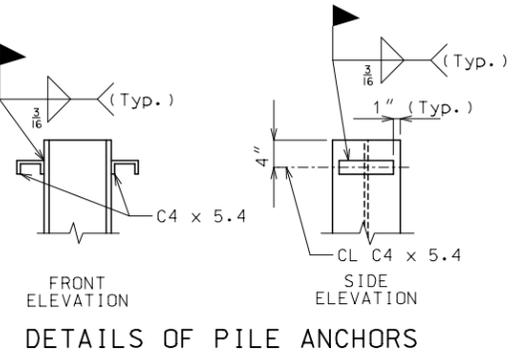
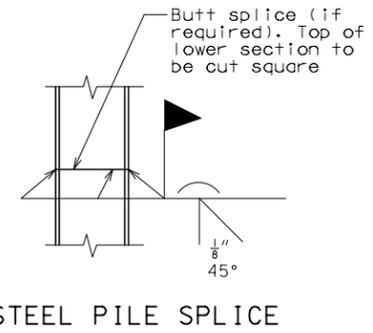
PLAN OF BEAM SHOWING DIMENSIONS AND REINFORCEMENT

12-1-2014 Progress Set

Notes:
 Anchor bolts shown for information only. Anchor bolt size and location shall be specified by the bridge manufacturer.
 Provide steel shim plates under bearings as required.



SECTION NEAR END BENT



DETAILS OF PILE ANCHORS

Item	Quantity
Structural Steel Pile (10in.)	linear foot 141
Pre-Bore for Piling	linear foot 45
Pile Point Reinforcement	each 3
Class B Concrete (Substructure)	cu. yard 7.5
Reinforcing Steel (Bridges)	pound 750
Anchor Bolts	each 4
Corrugated Metal Pipe Pile Spacers	each 3

Item	Quantity
Structural Steel Pile (10in.)	linear foot 147
Pre-Bore for Piling	linear foot 36
Pile Point Reinforcement	each 3
Class B Concrete (Substructure)	cu. yard 7.5
Reinforcing Steel (Bridges)	pound 750
Anchor Bolts	each 4
Corrugated Metal Pipe Pile Spacers	each 3

Cost of channel shear connectors C4 x 5.4 (ASTM A709 Grade 36) in place will be considered completely covered by the contract unit price for Structural Steel Piles (10 in.).

These quantities are included in the estimated quantities table on Sheet S3.2

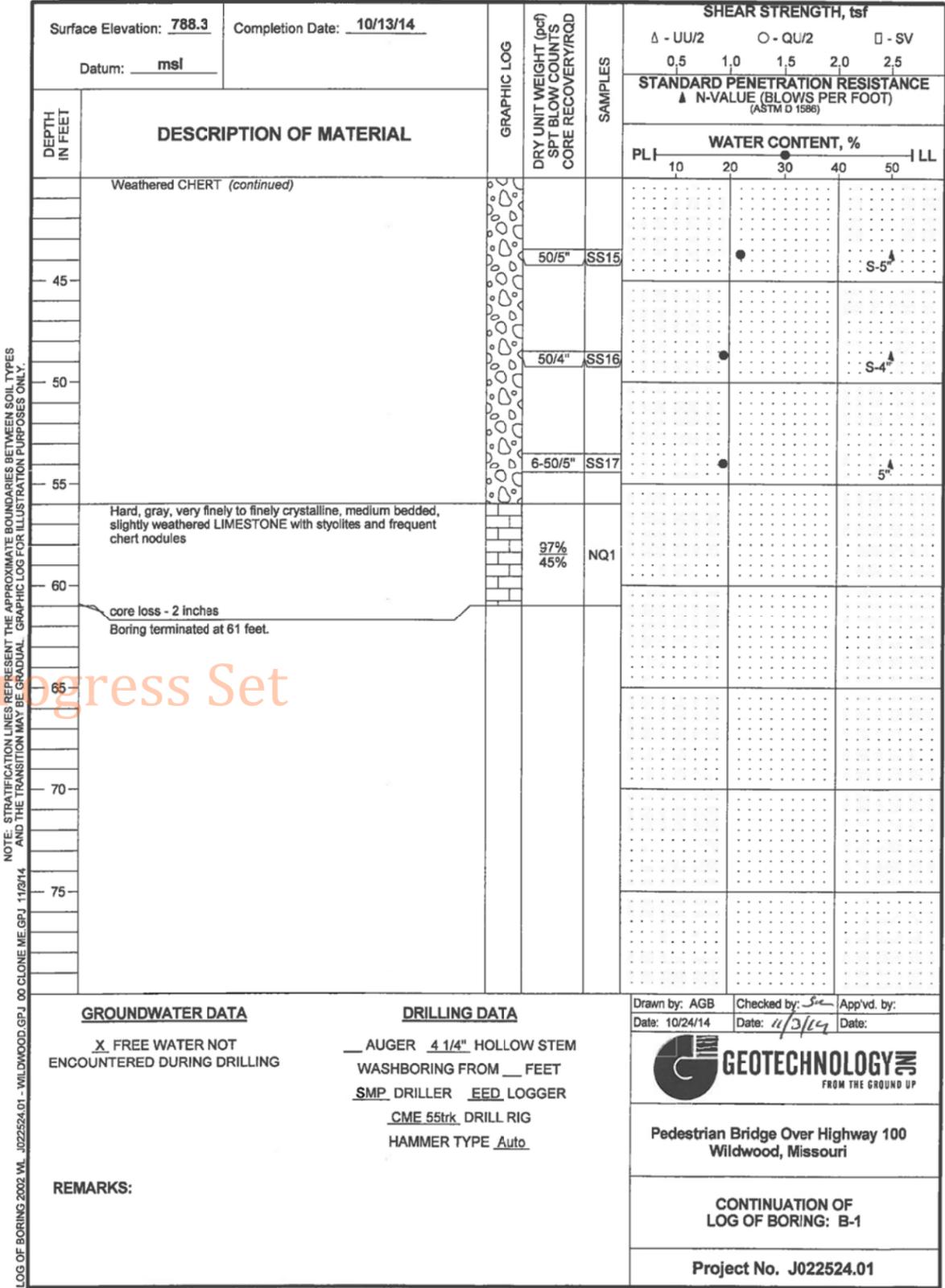
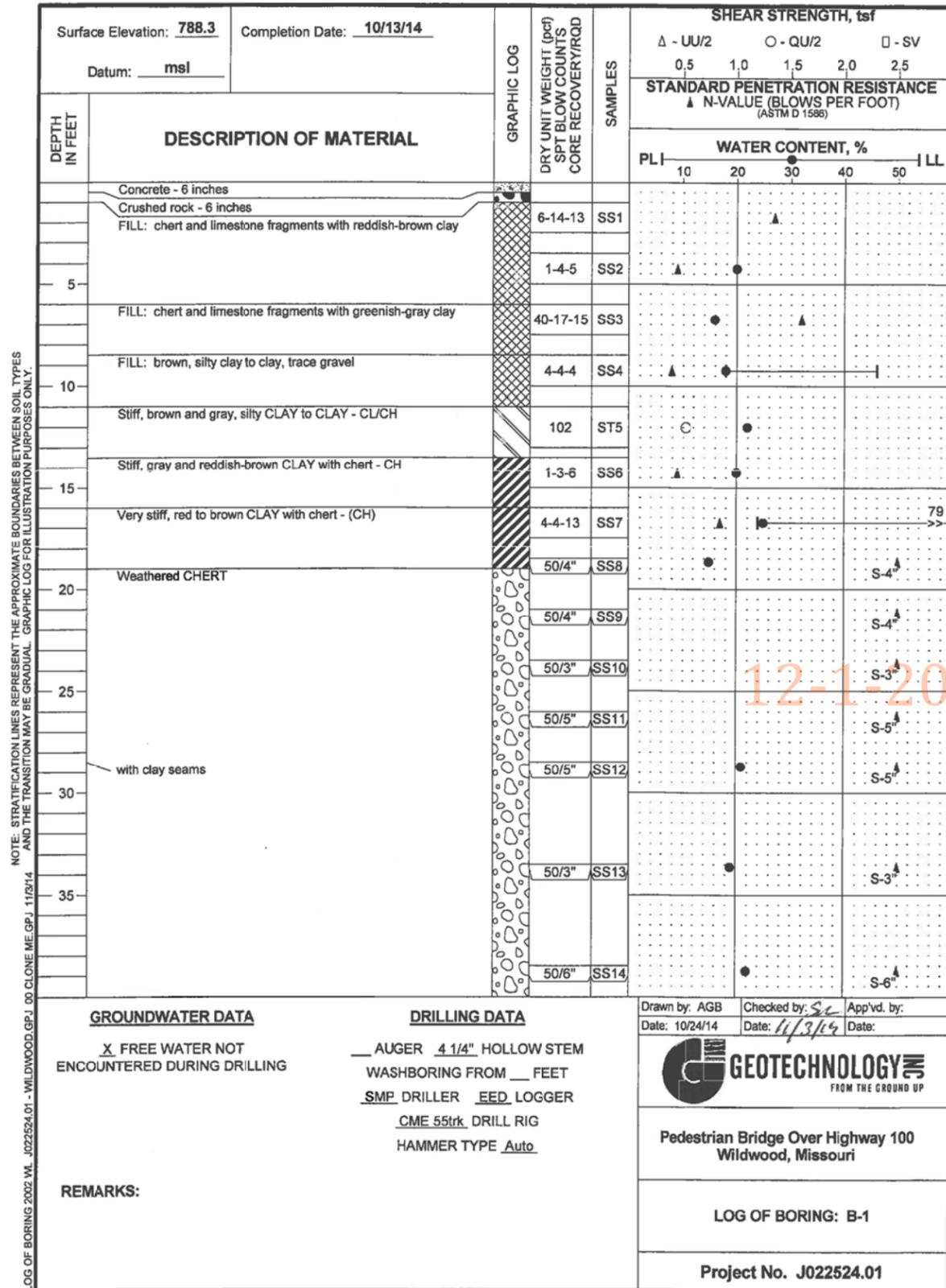
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 Plotted on: 12/1/2014

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BORING DATA

Note: For locations of borings, see Sheet No. S3.1.

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PROJECT NO. 1405

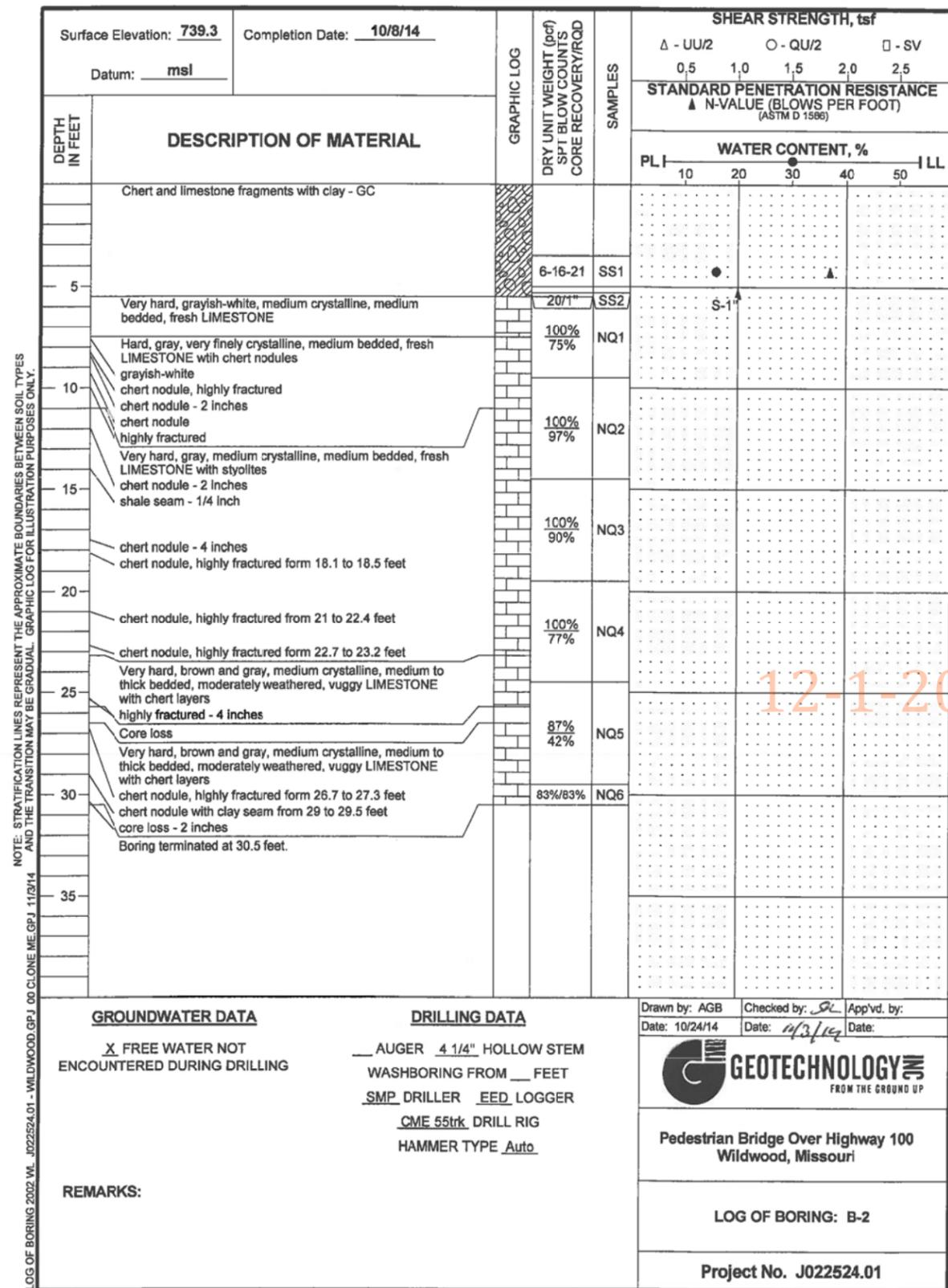
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 BORING LOGS

SHEET NUMBER:
 S3.8

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 Plotted on: 12/1/2014

Detailed OCT 2014
 Checked OCT 2014



12-1-2014 Progress Set

GROUNDWATER DATA

FREE WATER NOT ENCOUNTERED DURING DRILLING

DRILLING DATA

AUGER 4 1/4" HOLLOW STEM WASHBORING FROM ___ FEET
 SMP DRILLER EED LOGGER
 CME 55trk DRILL RIG
 HAMMER TYPE Auto

REMARKS:

Drawn by: AGB Checked by: *SL* App'vd. by:
 Date: 10/24/14 Date: 11/3/14 Date:



Pedestrian Bridge Over Highway 100
 Wildwood, Missouri

LOG OF BORING: B-2

Project No. J022524.01

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PROJECT NO. 1405

SHEET TITLE:
 BORING LOGS

SHEET NUMBER:
 S3.9

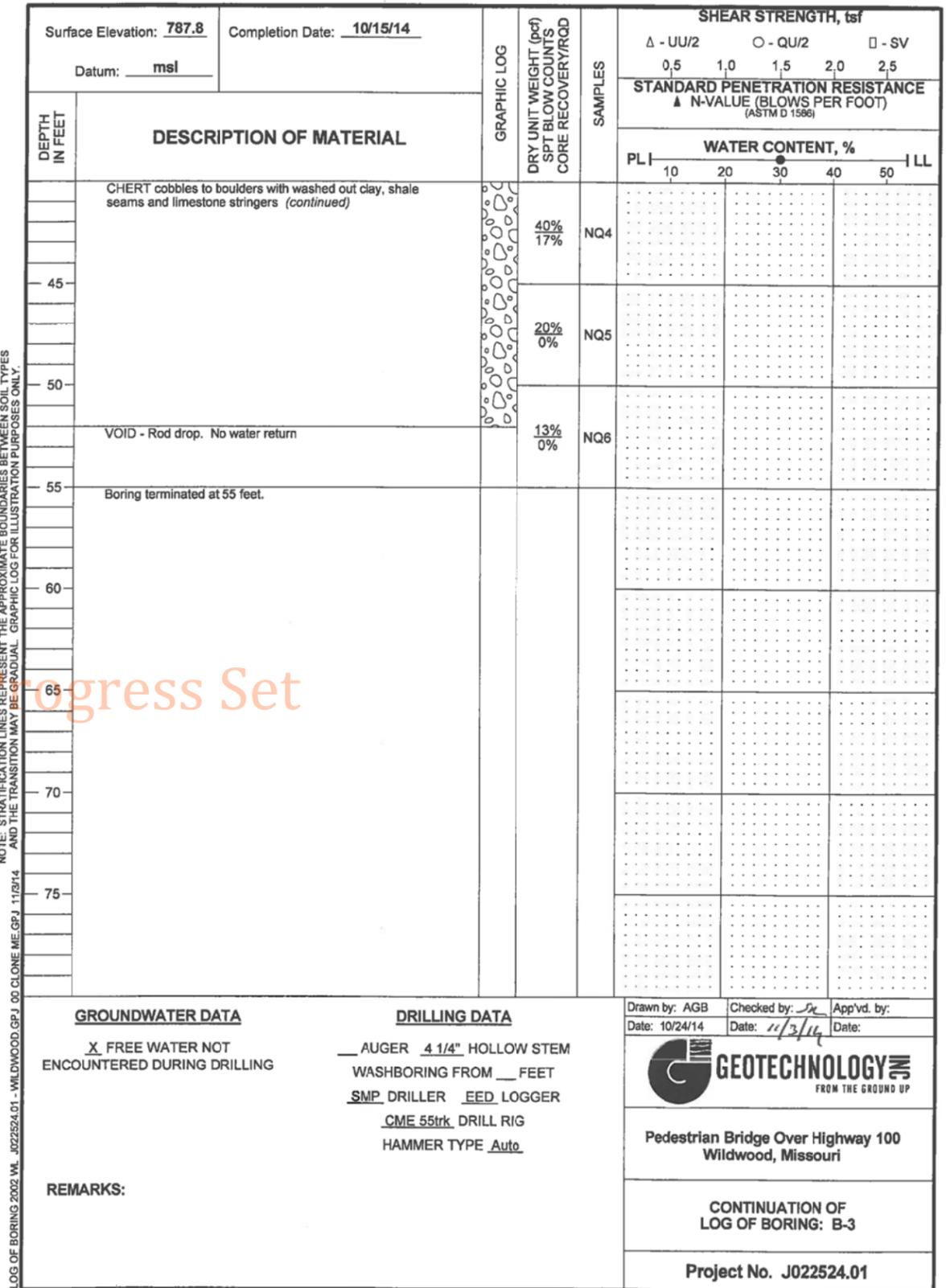
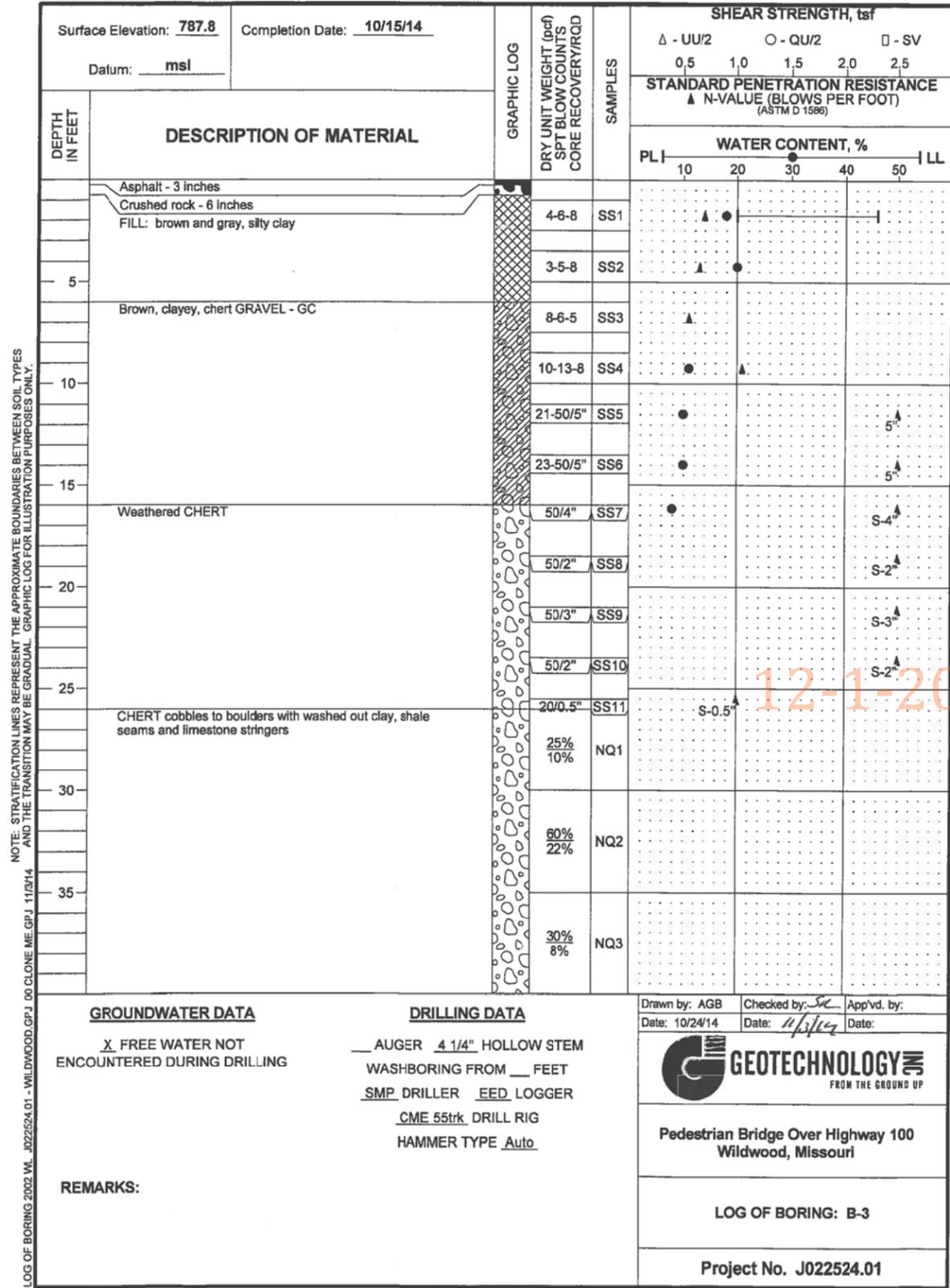
BORING DATA

Note: For locations of borings, see Sheet No. S3.1.

Note: This drawing is not to scale. Follow dimensions.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED

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 Plotted on: 12/1/2014



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BORING DATA

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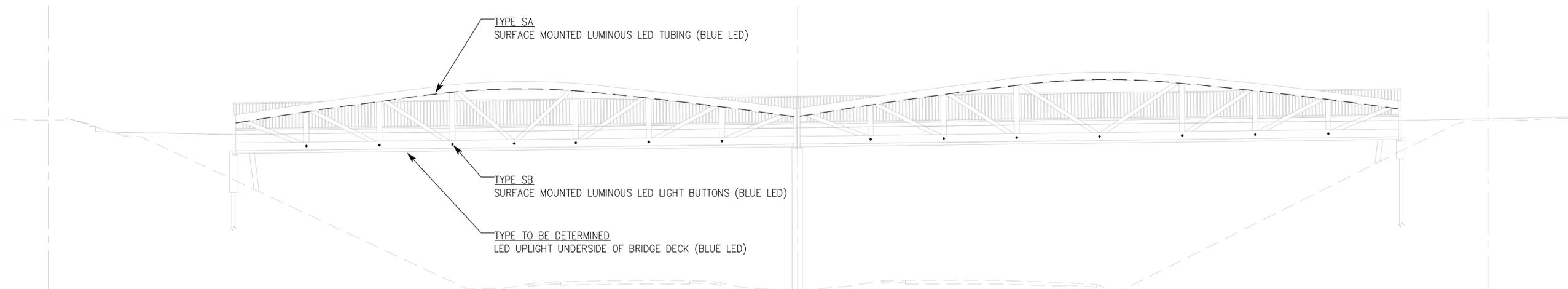
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 Design/Drawn by: BTS
 Checked by: CTW
 Approved by: CDL

PROJECT NO. 1405

SHEET TITLE:
 BORING LOGS

SHEET NUMBER:
 S3.10

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1 AESTHETIC LIGHTING INTENT
 SCALE: 1/16"=1'-0"

Plexineon Color Series - Cool Colors

PRODUCT SUMMARY

PRODUCT FEATURES

- Bright, even-to-red color
- Durable construction
- Long life
- Energy efficient
- Low voltage
- Easy to install
- Cool to the touch
- For use as exterior or interior accent lighting, direct view or indirect view applications, coves & more

Light Colors

- Blue
- Green
- Magenta*
- Rose**
- Teal

Diffuser Color (when not illuminated)

- Frosted
- Red*
- Light Pink**

Lengths Available

- Standard lengths: 2', 4', 6', 8' (610 mm, 1219 mm, 1830 mm, 2438 mm)
- Factory custom lengths available to the nearest 1/8" (1.5mm) +/- 0.25" (6mm)
- 2' (610mm) field cuttable pieces
- Illuminated outside corner pieces
- Factory convex or concave bends to minimum inside radius of 5" (127mm)
- Factory "easy bends" to a 3/4" (6mm) radius
- Gentle field bends to a 48" (1219mm) radius

Power Supply

- Class 2 24VDC, 100 Watts - must be supplied by iLight
- Primary voltage: 120 or 120-277 depending on model
- Secondary voltage: 24VDC 4.1 A. Max
- Maximum illumination length of a single 100W power supply: 32 feet (9.75m)

Power Supply Tips

- 20% overage for breaker for primary current draw
- Do not plug multiple power supplies into one run of Plexineon
- All iLight power supplies should be on an independent circuit
- Recommend surge protection upstream from power supply
- Verify correct voltage prior to wiring to non-switching power supplies

Low Voltage Cable

Maximum distance of low voltage cable in any given run:

- 14 AWG: 40 feet (12.19m)
- 12 AWG: 60 feet (18.29m)
- 10 AWG: 100 feet (30.48m)

1. Drawing required for production
 2. Field bending allowed only on fixtures without C-channel

ORDERING INFORMATION

CLASS	VOLTAGE	COLOR	HOUSING	LENGTH	CHANNEL	VERSION
T	24		S			
TT = Trim	24 = 24V	BLU = Blue GRN = Green MAG = Magenta ROS = Rose TEA = Teal	S = Silver	2F = 2 Feet 4F = 4 Feet 6F = 6 Feet 8F = 8 Feet CL = Custom Length PC = OUTSIDE CORNER RT = 2 Foot Corner Outtable TT = 2 Foot Outtable BE = Bend - Edge BN = Bend - Convex BV = Bend - Concave	NC = No Channel SC = Stainless Steel CC = Clear	00 = With Connectors 01 = Without Connectors

Specifications are subject to change without notice. For the most recent version, please refer to www.ilighttech.com.

iLight Technologies • 118 South Clinton, Suite 330 • Chicago, IL 60661 • T 312.976.9630 • F 312.976.9631 • www.ilight-tech.com 3-2014-A

2 AESTHETIC LIGHTING - TYPE SA
 SCALE: NTS

SPECIFICATION SHEET

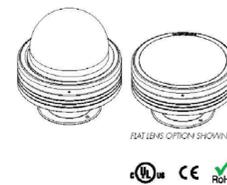
lumendome™
 MEDIUM WHITE

Client: _____
 Project name: _____
 Order #: _____
 Type: _____ Qty: _____

FEATURES AND BENEFITS

Physical :

- Low copper content machined aluminum housing
- Electro-statically applied polyester powder coat finish
- High impact UV protected polycarbonate lens
- Sealing gasket included
- Canopy or Wall Mount mounting options
- Flat lens option
- 1.54 kg / 3.41 lbs
- IP66
- Corrosion-resistant option for marine environments

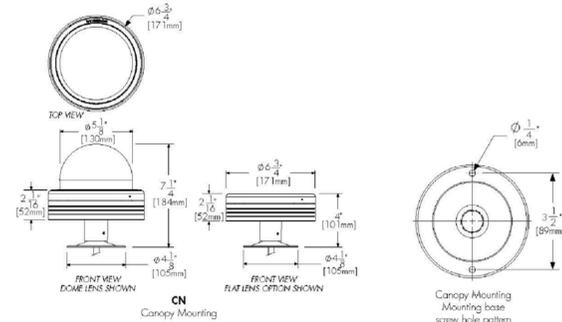


Performance :

- 2700K, 3000K, 3500K, 4000K color temperatures available
- Lumen maintenance 120,000 hrs [L70 @ 25°C]
- Operating temperatures: 25° C to 50° C [-13F to 122F]

Electrical :

- 48V DC luminaire, remote driver & data supply available for 100 to 277V AC (not included, see page 2 for details)
- Power and data in 1 cable, 3ft / 1m cord (#18)
- 12 watts DC (total consumption varies according to remote power supply efficiency)
- DMX dimming option



5 year warranty

1/7 Lumapulse 1751 Richardson, Suite 1505, Montreal (Quebec) Canada H3K 1G6 1.877.937.3003 P. 514.937.3003 F. 514.937.6289
 info@lumapulse.com www.lumapulse.com
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lumenpulse
 Sustainable architectural LED lighting systems

3 AESTHETIC LIGHTING - TYPE SB
 SCALE: NTS



4 AESTHETIC LIGHTING - DESIGN INSPIRATION IMAGE
 SCALE: NTS

PLANS - VLS-1405-01 - Eatherton Road Ped Bridge/Club Viewshed no watermark

RANDY BURKETT LIGHTING DESIGN
 609 E. LOCKWOOD AVE.
 SUITE 201
 ST. LOUIS, MO 63119
 P:314.961.6650
 F:314.961.7640
 WWW.RBLDI.COM

**Eatherton Road Pedestrian Bridge
 Wildwood, Missouri**

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 Mark Edward Meyer
 E-2000150043

Expiration Date: Dec. 31, 2014

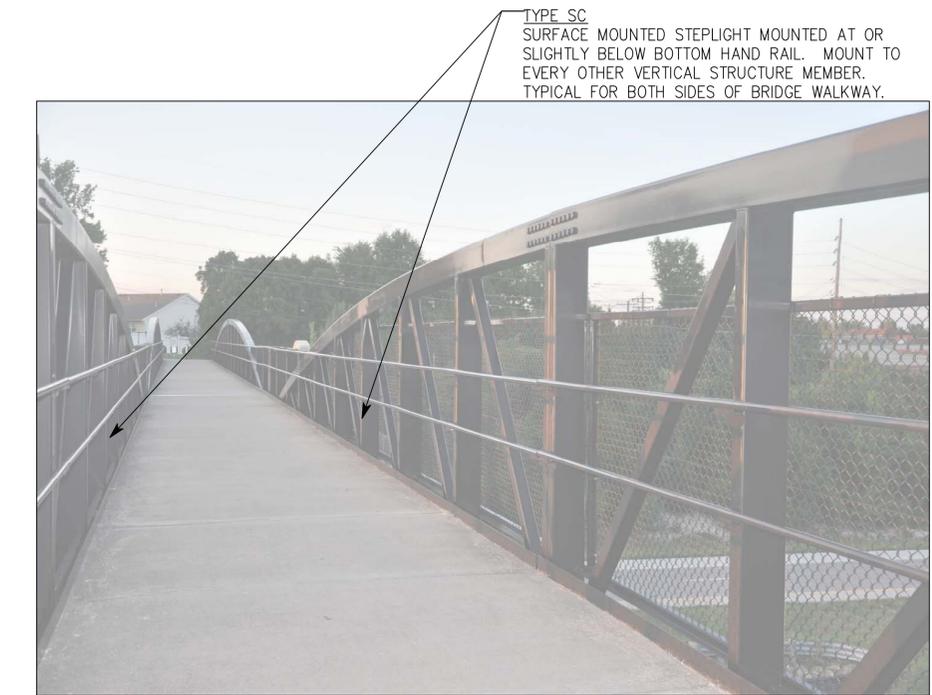
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Date: DEC. 2014
 Design/Drawn by: EA
 Checked by: RK
 Approved by: RK

PROJECT NO. 1405

SHEET TITLE:
AESTHETIC LIGHTING

SHEET NUMBER:
 EL1
 1 OF 2



1 AESTHETIC LIGHTING INTENT – WALKWAY
 SCALE: NTS

Wall luminaires with fixed light distribution

Housing: One piece die-cast aluminum supplied with universal mounting bracket for direct attachment to 3/4" or 4" wiring box. Die castings are marine grade, copper free (c 0.3% copper content) A360.0 aluminum alloy.

Enclosure: One piece die-cast aluminum cover frame, secured by captive socket head, stainless steel screws threaded into stainless steel inserts. Interior of lamp compartment painted gloss white. Clear safety glass. Fully gasketed for weather tight operation using a molded silicone rubber gasket. Pure anodized aluminum reflector.

Electrical: 13W LED luminaire, 15 total system watts, -30° C start temperature. Integral 120V-277V electronic LED Driver. 0-10V dimming. Standard LED color temperature is 3000K with an 85 CRI. Available in 4000K (85 CRI); add suffix K4 to order.

Note: Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK), White (WHI), Bronze (BRZ), Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards. Protection class: IP64.
Weight: 3.3 lbs.

Type:
 BEGA Product:
 Project:
 Voltage:
 Color:
 Options:
 Modified:

Luminaire Lumens: 479
 Tested in accordance with LM-79-08



Fixed light distribution			
Lamp	A	B	C
3642 LED	13 W LED	4%	7% 4%

BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com
 ©Copyright BEGA-US 2014 Updated 06/14



2 AESTHETIC LIGHTING – TYPE SA
 SCALE: NTS

RBLDI - 1405 - Eatherton Road Ped Bridge/Club/Viewshed no seal/du.jpg

RANDY BURKETT LIGHTING DESIGN
 609 E. LOCKWOOD AVE.
 SUITE 201
 ST. LOUIS, MO 63119
 P:314.961.6650
 F:314.961.7640
 WWW.RBLDI.COM

**Eatherton Road Pedestrian Bridge
 Wildwood, Missouri**

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Expiration Date: Dec. 31, 2014

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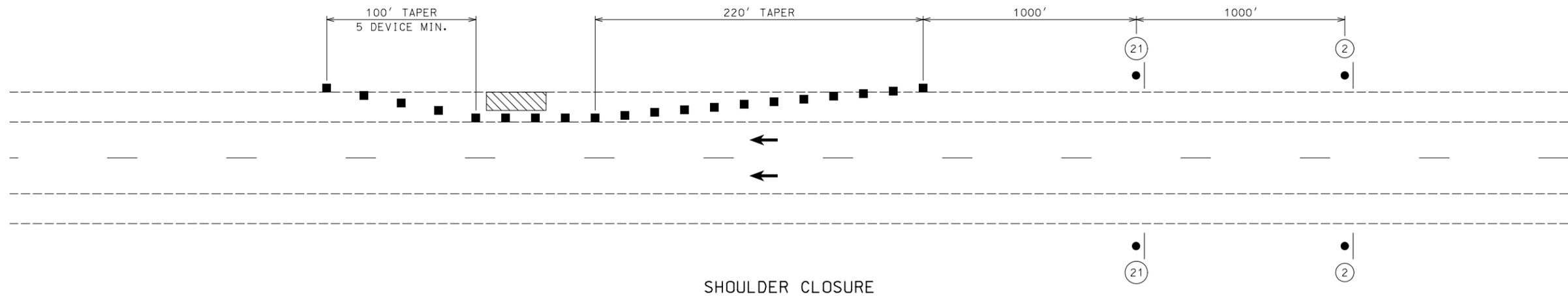
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 Design/Drawn by: EA
 Checked by: RK
 Approved by: RK

PROJECT NO. 1405

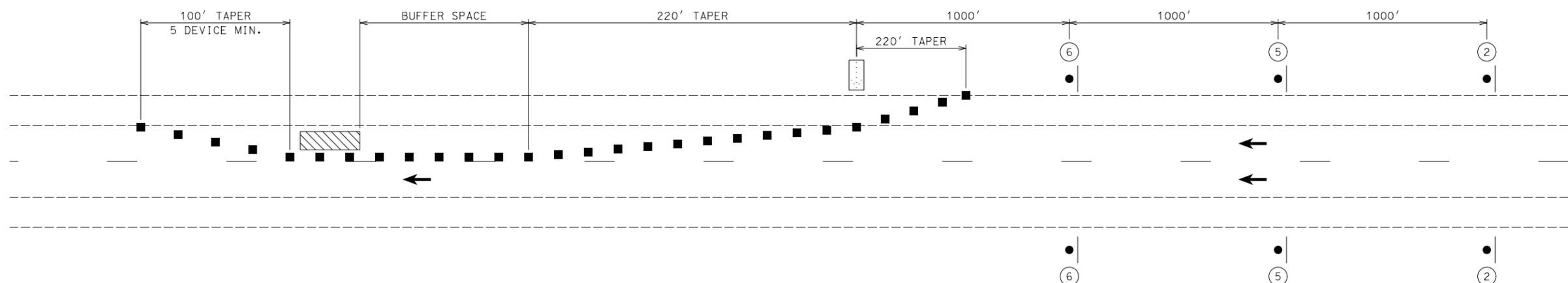
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AESTHETIC LIGHTING

SHEET NUMBER:
 EL2
 2 OF 2

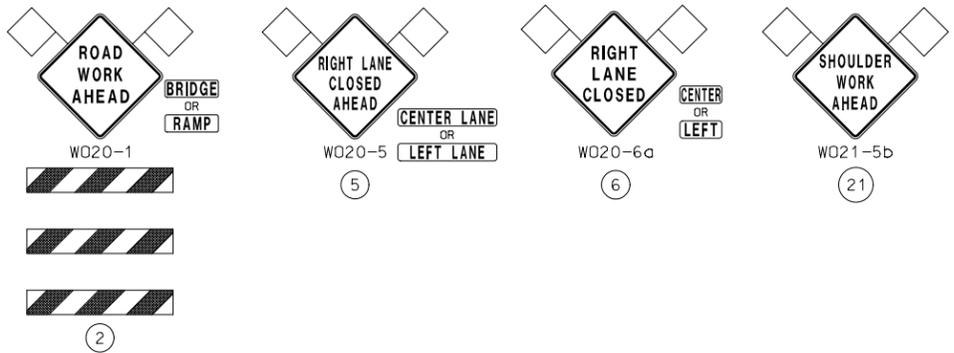
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 Plotted on: 12/3/2014



SHOULDER CLOSURE



LEFT LANE CLOSURE



NOTES:
 1. SIGNS MAY BE ADJUSTED AS NECESSARY TO MEET EXISTING CONDITIONS.

EFK Moen, LLC
 Civil Engineering Design
 13523 Barrett Parkway Dr
 Suite 250 St. Louis, MO 63021 Phone 314-394-3100
 Missouri Certificate of Authority: 001578

Eatherton Road
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 Wildwood, Missouri

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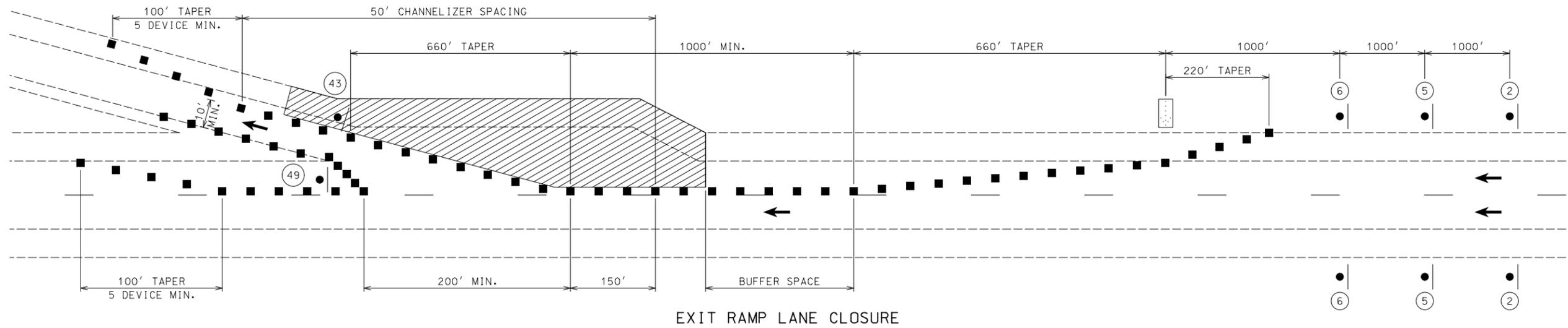
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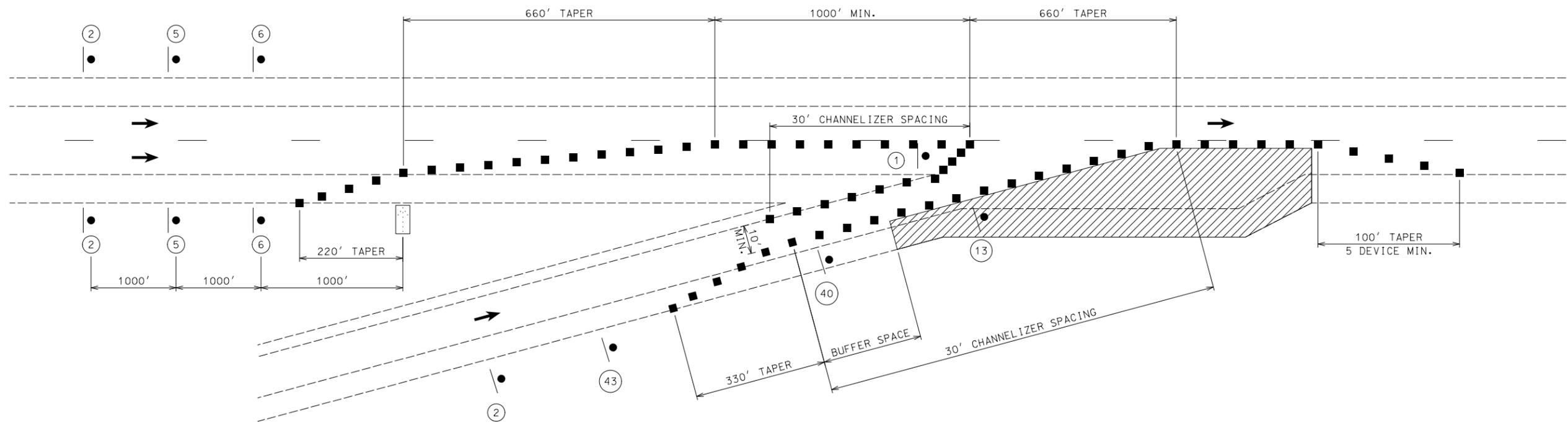
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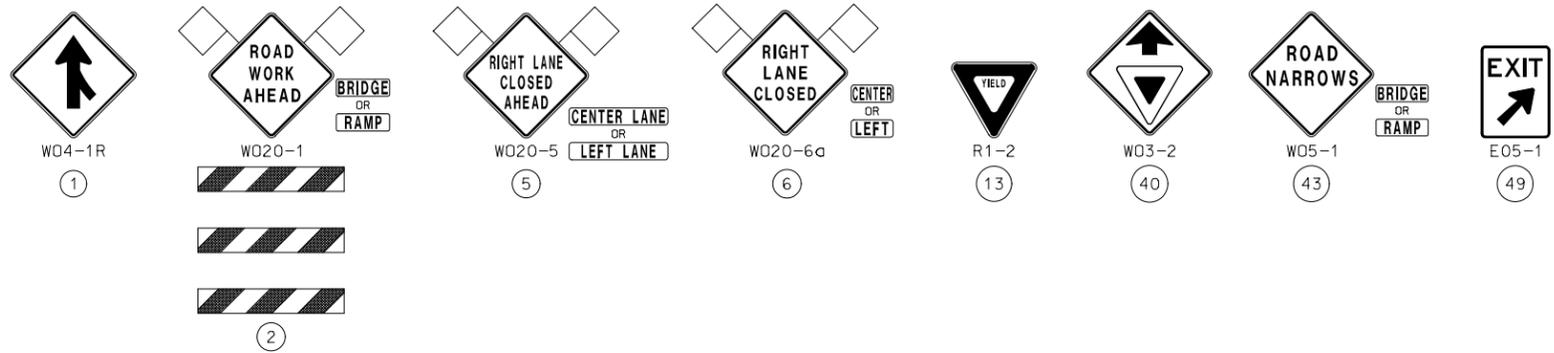
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EXIT RAMP LANE CLOSURE



ENTRANCE RAMP LANE CLOSURE



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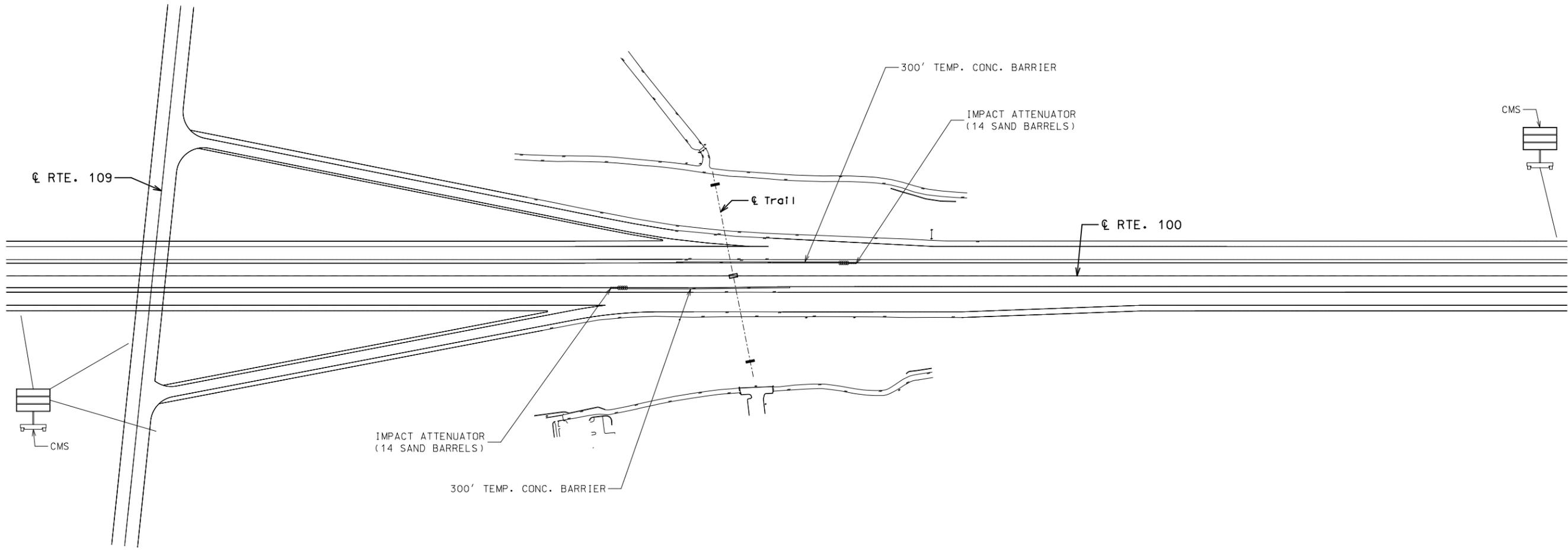
Date: 12/3/2014
 Design/Drawn by: BTS
 Checked by: CTW
 Approved by: CDL

PROJECT NO. 1405

SHEET TITLE:
 TRAFFIC CONTROL

SHEET NUMBER:
 T2

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SHEET TITLE:
TRAFFIC CONTROL

SHEET NUMBER:
T3

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