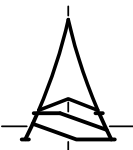
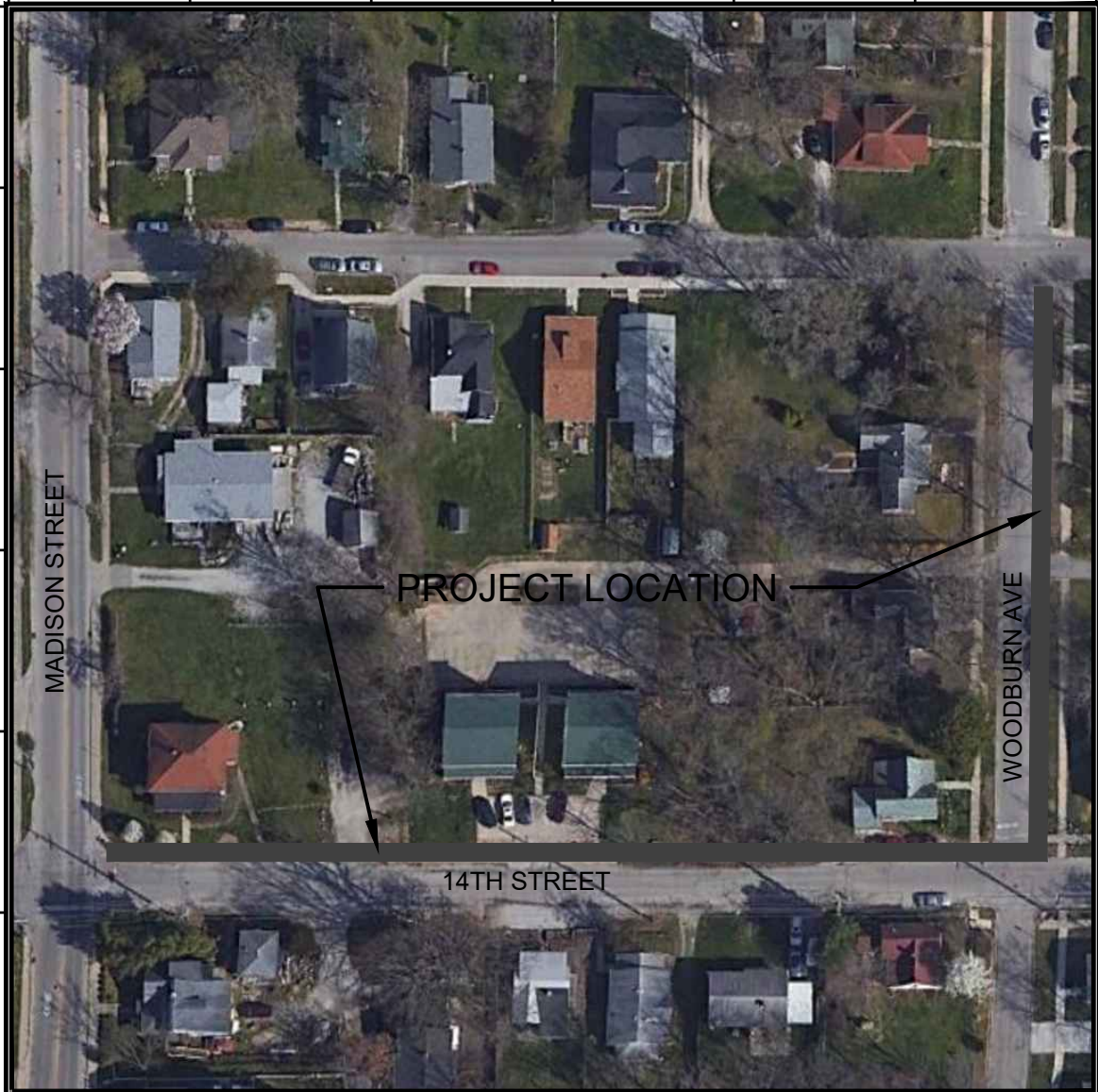


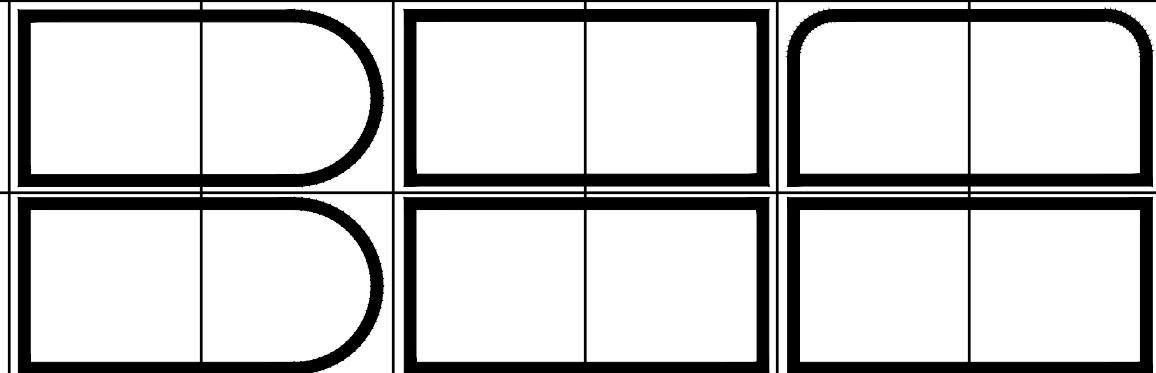
PROPOSED:  
14TH STREET SIDEWALK  
FROM MADISON STREET TO  
WOODBURN AVE  
BLOOMINGTON, INDIANA



VICINITY/LOCATION MAP  
NOT TO SCALE

| UTILITY CONTACT INFORMATION  |  |   |
|--|--|---|
| <b>GAS</b><br>VECTREN<br>205 S. MADISON ST.<br>BLOOMINGTON, IN 47401<br>1-800-227-1376         | <b>SEWER AND WATER</b><br>CITY OF BLOOMINGTON UTILITIES<br>600 E. MILLER DR.<br>BLOOMINGTON, IN 47402<br>NANCY AXSOM (812)349-3689 | <b>ELECTRIC</b><br>DUKE ENERGY<br>100 E. MAIN STREET<br>PLAINFIELD, INDIANA 46168                 |
| <b>TELEPHONE</b><br>AT&T<br>P.O. BOX 56<br>BLOOMINGTON, IN 47402<br>BRENT McCABE (812)334-4521 | <b>CABLE TELEVISION</b><br>COMCAST<br>2450 SOUTH HENDERSON STREET<br>BLOOMINGTON, IN 47404   | <b>UNDERGROUND UTILITY LOCATION</b><br>INDIANA UNDERGROUND<br>PLANT PROTECTION<br>1-(800)382-5544 |

| SHEET INDEX |                             |
|-------------|-----------------------------|
| SHEET NO.   | SHEET NO.                   |
| C101        | GENERAL NOTES & LEGENDS     |
| C102        | OEVERALL PROJECT PLAN SHEET |
| C201        | PR-1 PLAN AND PROFILE       |
| C202        | ST-1 PLAN AND PROFILE       |
| C301-C302   | MISCELLANEOUS DETAILS       |
| C401        | EROSION CONTROL DETAILS     |
| C501-C505   | CROSS SECTIONS PR-1         |

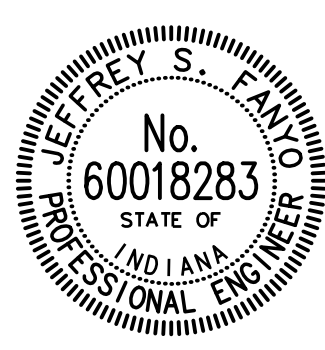


BYNUM FANYO & ASSOCIATES, INC.  
528 North Walnut Street  
Bloomington, Indiana 47404 (812) 332-8030

architecture  
civil engineering  
planning

OWNER/DEVELOPER:  
CITY OF BLOOMINGTON  
401 N. MORTON STREET  
BLOOMINGTON, IN 47404

THE CURRENT EDITION OF THE INDIANA DEPARTMENT OF  
TRANSPORATION STANDARD SPECIFICATIONS, THE  
MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND  
THE CITY OF BLOOMINGTON UTILITIES STANDARD  
SPECIFICATIONS ARE TO BE USED WITH THESE PLANS



Certified By:  
*Jeffrey S. Fanyo*  
JEFFREY S. FANYO, P.E.  
IND. REG. NO. 60018283

Revisions  
  
14TH STREET SIDEWALK  
PROJECT NO. 401940



## GENERAL LEGEND

|         |                                   |
|---------|-----------------------------------|
| ----    | PROPERTY LINE                     |
| ----    | PROPERTY LINE                     |
| XXX/XXX | DEED BOOK AND PAGE                |
| T.B.R.  | TO BE REMOVED                     |
| T.R.U.  | TO REMAIN UNDISTURBED             |
| X' SBL  | SETBACK LINE                      |
|         | PROPOSED ACCESSIBLE PARKING SPACE |
| S.S.E.  | SANITARY SEWER EASEMENT           |
| G.E.    | GAS EASEMENT                      |
| W.L.E.  | WATER LINE EASEMENT               |
| E.E.    | ELECTRIC EASEMENT                 |
| D.E.    | DRAINAGE EASEMENT                 |
| U.E.    | UTILITY EASEMENT                  |

## EXISTING LEGEND

|             |                                     |
|-------------|-------------------------------------|
| — X —       | EXISTING FENCE                      |
| — W —       | EXISTING WATER LINE                 |
| — OHE —     | EXISTING OVERHEAD ELECTRIC LINES    |
| — UGE —     | EXISTING UNDERGROUND ELECTRIC LINES |
| — OHT —     | EXISTING OVERHEAD TELEPHONE LINES   |
| — UGT —     | EXISTING UNDERGROUND TELEPHONE LINE |
| — GAS —     | EXISTING GAS LINE                   |
| --- XXX --- | EXISTING CONTOUR & ELEVATION        |
| → . . . →   | FLOW LINE                           |
| — SS — ○    | EXISTING SANITARY SEWER AND MANHOLE |
| — ST — □    | EXISTING STORM SEWER AND INLET      |

## SITE LEGEND

|        |  |
|--------|--|
| (A)    | PROPOSED ROAD BITUMINOUS PAVING  |
| (A1)   | PROPOSED HEAVY DUTY ROAD BITUMINOUS PAVING   |
| (W)    | PROPOSED ALL-PURPOSE TRAIL BITUMINOUS PAVING   |
| (C)    | PROPOSED REINFORCED CONCRETE PAVING  |
| (F)    | PROPOSED CONCRETE SIDEWALK   |
| (F1)   | PROPOSED MONOLITHIC CURB AND SIDEWALK  |
| (PP)   | PROPOSED CITY OF BLOOMINGTON STANDARD ROAD PAVEMENT PATCH  |
| (13)   | PROPOSED 6 IN. STANDING CURB   |
| (15)   | PROPOSED 6 IN. CONCRETE CURB AND GUTTER  |
| (R1)   | PROPOSED INDOT SIDEWALK ACCESSIBLE RAMP TYPE G   |
| (R2)   | PROPOSED INDOT SIDEWALK ACCESSIBLE RAMP TYPE A   |
| (R3)   | PROPOSED SIDEWALK ACCESSIBLE RAMP TYPE H   |
| (R4)   | PROPOSED SIDEWALK ACCESSIBLE RAMP TYPE K   |
| (R5)   | PROPOSED INDOT SIDEWALK ACCESSIBLE RAMP TYPE E   |
| (21)   | PROPOSED SOLID WHITE 4 IN. WIDE PAINTED PAVEMENT MARKING   |
| (29)   | PROPOSED SOLID WHITE 12 IN. WIDE PAINTED CROSS HATCH PAVEMENT MARKING - SPACED AT 5 FT. O.C. IN LIMITS SHOWN   |
| (20)   | PROPOSED SOLID BLUE 4 IN. WIDE PAINTED ADA PARKING MARKING   |
| (36)   | PROPOSED SOLID THERMOPLASTIC WHITE 24 IN. WIDE STOP BAR PAVEMENT MARKING   |
| (38)   | PROPOSED SOLID WHITE THERMOPLASTIC 24 IN. WIDE CROSSWALK PAVEMENT MARKING - 24 IN. SPACING   |
| (R1-1) | PROPOSED INDOT 30 IN. X 30 IN. ROAD STOP SIGN  |
| (RW)   | PROPOSED REINFORCED CONCRETE RETAINING WALL AND RAILING - REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS  |
| (XX)   | PROPOSED NUMBER OF PARKING SPACES PER LOT  |
| (B)    | PROPOSED BOLLARD   |
| (S)    | PROPOSED CONCRETE STAIRS SPACED 4 FT. O.C. MIN. AS REQUIRED, STEP HEIGHT VARIES, 7 IN. MAXIMUM, REFER TO GRADING PLAN FOR MORE INFORMATION   |
| (SI)   | PROPOSED WOOD STAIRS TO 2ND FLOOR AS REQUIRED, RISER HEIGHT VARIES, REFER TO GRADING AND ARCHITECTURAL PLANS FOR MORE INFORMATION  |
| (BP)   | PROPOSED BIKE PARKING AREA WITH CONCRETE PAD, REFER TO TYPICAL SIDEWALK CONCRETE DETAIL - REFER ALSO TO LANDSCAPE AND ARCHITECTURAL PLANS FOR ADDITIONAL DETAIL AND FOUNDATION INFORMATION |
| (PB)   | PROPOSED CONCRETE PARKING BUMPER BLOCK, 7 FT. LONG   |

## UTILITY LEGEND

|                 |  |
|-----------------|--|
| — FSL —         | PROPOSED DIP FIRE SERVICE LINE                               |
| — DSL —         | PROPOSED DOMESTIC SERVICE LINE                               |
|                 | PROPOSED WATER VALVE   |
|                 | PROPOSED FIRE HYDRANT  |
| — S.S.L. — C.O. | PROPOSED SANITARY SEWER LATERAL AND SANITARY SEWER CLEAN-OUT |
| — ST —          | PROPOSED STORM SEWER INLET AND PIPE                          |
| — BD —          | PROPOSED SCHEDULE 40 PVC BUILDING DRAIN                      |
| — GAS —         | PROPOSED GAS SERVICE LINE                                    |
| — ELEC —        | PROPOSED ELECTRIC SERVICE LINE                               |

## GRADING LEGEND

|             |   |
|-------------|---|
| — XXX —     | PROPOSED GRADE CONTOUR                                      |
| --- XXX --- | EXISTING GRADE CONTOUR                                      |
| — FL> —     | PROPOSED FLOWLINE   |
|             | PROPOSED SPOT GRADE ELEVATION                               |
|             | PROPOSED TOP OF CURB ELEVATION                              |
| FC=XXX.XX   | FINISH TOP OF CURB ELEVATION                                |
| FF=XXX.XX   | FINISH FLOOR ELEVATION                                      |
| FG=XXX.XX   | FINISH EARTH GRADE ELEVATION                                |
| FGH=XXX.XX  | FINISH EARTH GRADE ELEVATION ON HIGH SIDE OF RETAINING WALL |
| FGL=XXX.XX  | FINISH EARTH GRADE ELEVATION ON LOW SIDE OF RETAINING WALL  |
| FP=XXX.XX   | FINISH PATIO ELEVATION                                      |
| FR=XXX.XX   | FINISH RAMP ELEVATION                                       |
| FS=XXX.XX   | FINISH STEP ELEVATION                                       |
| FW=XXX.XX   | FINISH WALK ELEVATION                                       |
| TC=XXX.XX   | FINISH TOP OF CASTING                                       |
| TW=XXX.XX   | FINISH TOP OF RETAINING WALL                                |

## EROSION CONTROL LEGEND

|        |   |
|--------|---|
| — SF — | SILTATION FENCE (TEMPORARY)   |
| — CL — | CONSTRUCTION LIMITS   |
| (MS)   | MULCH SEEDING - SEE SPECIFICATIONS (TEMPORARY)                              |
|        | 20' X 50' STONE PAD, 6" DEEP TO KEEP FROM TRACKING MUD OFF SITE (TEMPORARY) |
| (CD)   | CHECK DAM (TEMPORARY)   |
| (CW)   | CONCRETE WASHOUT AREA (TEMPORARY)   |
| (ECB)  | EROSION CONTROL BLANKET (PERMANENT)   |
| (SBI)  | STRAW BALE (TEMPORARY) (TO BE USED ON ALL YARD INLETS)                      |

## PARKING AND PAVEMENT NOTES

- ☒ 1. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC DEVICES, 1988 EDITION AS AMENDED.
- ☐ 2. ALL PAVEMENT MARKINGS SHALL BE PAINTED WHITE ON ASPHALT PAVEMENT / YELLOW ON CONCRETE PAVEMENT AND SHALL BE FOUR (4) INCHES WIDE UNLESS INDICATED OTHERWISE.
- ☐ 3. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS INDICATED OTHERWISE. ALL CURB RADIUS ARE TO BE 5' UNLESS INDICATED OTHERWISE.
- ☐ 4. CONTRACTOR SHALL FURNISH AND INSTALL PAVEMENT MARKINGS AS SHOWN ON THE PLANS.
- ☐ 5. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES WITH OTHER CONTRACTORS ON THE SITE.
- ☒ 6. JOINTS OR SCORE MARKS ARE TO BE SHARP AND CLEAN WITHOUT SHOWING EDGES OF JOINTING TOOLS.
- ☒ 7. CONTRACTOR SHALL SAW-CUT TIE-INS AT EXISTING CURBS AS NECESSARY TO INSURE SMOOTH TRANSITIONS. CONTRACTOR SHALL SAW-CUT AND TRANSITION TO MEET EXISTING PAVEMENT AS NECESSARY AND AS DIRECTED BY INSPECTOR TO INSURE POSITIVE DRAINAGE. (TYPICAL AT ALL INTERSECTIONS).
- ☒ 8. CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY A.G.C. OF AMERICA, INC. AND THE HEALTH AND SAFETY REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.

## GRADING NOTES

- ☒ 1. NEW FINISHED CONTOURS SHOWN ARE TOP OF FUTURE PAVING IN AREAS TO RECEIVE PAVEMENT AND TOP OF TOPSOIL IN AREAS TO BE SEED OR PLANTED.
- ☒ 2. AREAS OUTSIDE OF THE PARKING LOT PERIMETERS SHOWN TO BE SEED OR PLANTED SHALL RECEIVE 6" OF TOPSOIL. THIS TOPSOIL IS TO BE PLACED AND LEVELED BY THE CONTRACTOR.
- ☒ 3. CONTRACTOR SHALL NOTIFY AND COOPERATE WITH ALL UTILITY COMPANIES OR FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING, OR CONNECTING TO SAID FACILITIES. CONTRACTOR SHALL PAY ALL COSTS IN CONNECTION WITH ALTERATION OF OR RELOCATION OF THE FACILITY.
- ☒ 4. ALL AREAS NOT COVERED BY BUILDING OR PAVING ARE TO BE VEGETATED (SEED OR PER LANDSCAPE PLAN).
- ☒ 5. UNUSABLE EXCAVATED MATERIALS AND ALL WASTE RESULTING FROM CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF SITE BY CONTRACTOR.
- ☒ 6. ALL EXCAVATING IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED.
- ☒ 7. BEFORE ANY MACHINE WORK IS DONE, CONTRACTOR SHALL STAKE OUT AND MARK THE ITEMS ESTABLISHED BY THE SITE PLAN. CONTROL POINTS SHALL BE PRESERVED AT ALL TIMES DURING THE COURSE OF CONSTRUCTION. THE LACK OF PROPER WORKING POINTS AND GRADE STAKES MAY REQUIRE CESSATION OF OPERATIONS UNTIL SUCH POINTS AND GRADES HAVE BEEN PLACED TO THE OWNER'S SATISFACTION.
- ☐ 8. CONTRACTOR SHALL COMPACT AND MAINTAIN A 30,000 SQ. FT. STONEBASE CONSTRUCTION LAYDOWN AREA W/ STONE ACCESS FROM THE CONSTRUCTION ENTRANCE AND STONE ACCESS TO THE BUILDING PAD.
- ☐ 9. THESE DOCUMENTS ARE SCHEMATIC IN NATURE AND CANNOT SHOW EVERY ITEM NEEDED FOR A COMPLETE OPERATIONAL STORM SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE OPERATING STORM SYSTEM.
- ☒ 10. ALL FILL SHALL BE FREE OF VEGETABLE MATTER, RUBBISH, LARGE ROCK, AND OTHER DELETERIOUS MATERIAL. THE FILL MATERIAL SHOULD BE PLACED IN LAYERS NOT TO EXCEED SIX (6) INCHES IN LOOSE THICKNESS AND SHOULD BE SPRINKLED WITH WATER AS REQUIRED TO SECURE SPECIFIED COMPACTION. EACH LAYER SHOULD BE UNIFORMLY COMPACTED BY MEANS OF SUITABLE EQUIPMENT AS DICTATED BY THE TYPE OF FILL MATERIAL. UNDER NO CIRCUMSTANCES SHOULD A BULLDOZER OR SIMILARLY TRACKED VEHICLE BE USED AS COMPACTING EQUIPMENT. MATERIAL CONTAINING AN EXCESS OF WATER SHOULD BE SPREAD AND DRIED TO A MOISTURE CONTENT THAT WILL PERMIT PROPER COMPACTION. ALL FILL SHOULD BE COMPACTED TO THE SPECIFIED PERCENTAGE OF THE MAXIMUM DENSITY OBTAINED IN ACCORDANCE WITH ASTM DENSITY TEST D-698 (95 PERCENT OF MAXIMUM DRY DENSITY). IF THE SPECIFIED COMPACTION LIMITS ARE NOT MET, SUCH AREAS SHOULD BE REWORKED AND RETESTED AS REQUIRED UNTIL THE SPECIFIED LIMITS ARE REACHED.

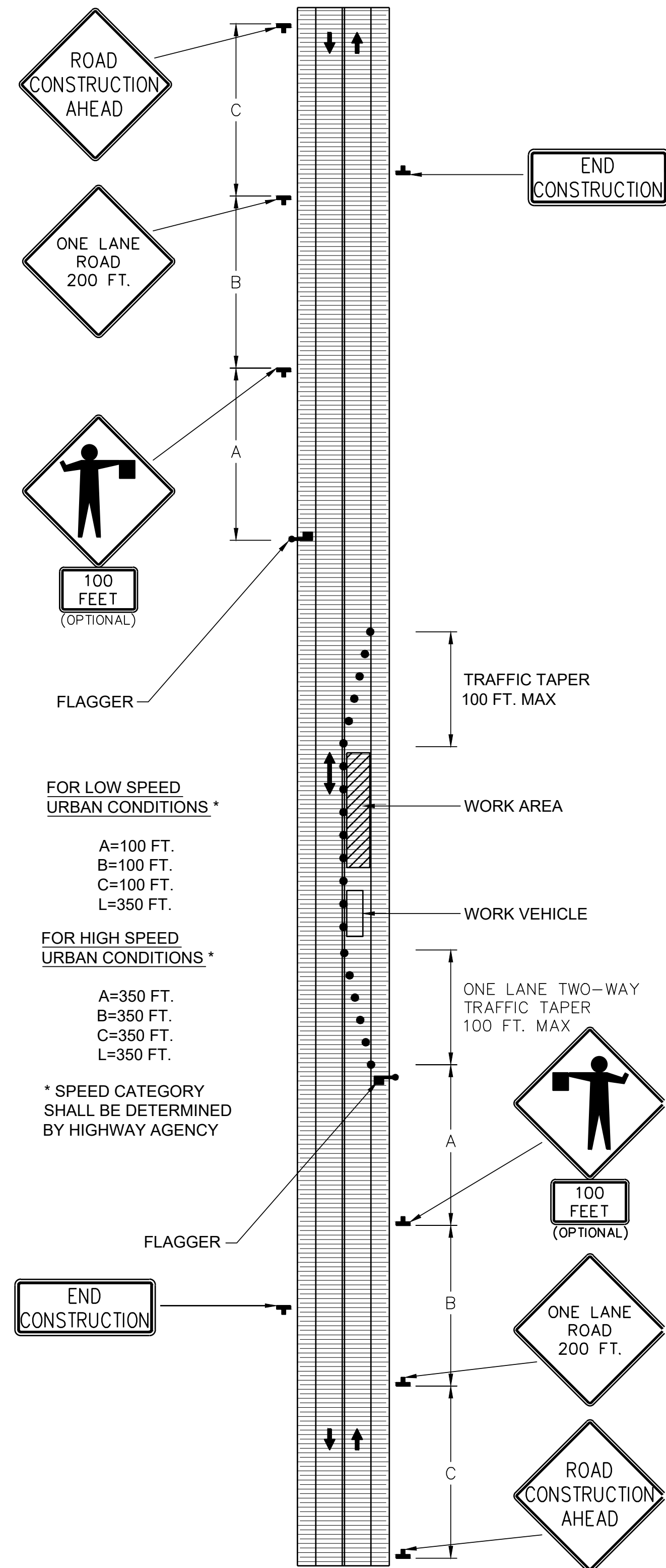
## LANDSCAPE NOTES

- ☐ 1. ALL PLANT MATERIAL SHALL ARRIVE ONSITE IN A HEALTHY, VIGOROUS CONDTION AND BE FREE OF PESTS AND DISEASE.
- ☐ 2. ALL PLANTS SHALL BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
- ☐ 3. ALL TREES SHALL BE STRAIGHT-TRUNKED, FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
- ☐ 4. ALL TREES SHALL BE GUYED OR STAKED PLUMB AS SHOWN IN THE DETAILS.
- ☐ 5. ALL PLANTING MASS BEDS SHALL BE SPADE CUT UNLESS SPECIFIED WITH A MOW STRIP OR OTHER INSTALL EDGING. TREES TO HAVE A 5' DIAMETER MULCH RING.
- ☐ 6. ALL PLANTING AREAS SHALL BE COMPLETELY MULCHED WHERE SPECIFIED.
- ☐ 7. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION. PLANTING LOCATIONS MAY REQUIRE ADJUSTMENTS IN FIELD TO AVOID OVERHEAD AND UNDERGROUND UTILITIES.
- ☐ 8. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND SPECIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
- ☐ 9. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING AND LAWN AREAS INCLUDING, BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, PRUNING, FERTILIZING, ETC., UNTIL WORK IS ACCEPTED IN FULL BY THE OWNER.
- ☐ 10. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF TOTAL ACCEPTANCE. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE PERIOD.
- ☐ 11. THE OWNER SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION.
- ☐ 12. AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST OR DRIP IRRIGATION SYSTEM PRIOR TO INSTALLATION. WATER ALL SPECIMENS WITHIN 24 HOURS OF PLANTING.
- ☐ 13. ANY NEW OR TRANSPLANTED PLANT MATERIAL WHICH DIES, TURNS BROWN OR DEFOOLIATES PRIOR TO TOTAL ACCEPTANCE OF THE WORK SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY AND SIZE TO MEET ALL PLANT LIST SPECIFICATIONS.
- ☐ 14. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
- ☐ 15. ALL SHRUB, GROUNDCOVER, ANNUAL AND HERBACEOUS PERENNIAL PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH HARDWOOD MULCH TO A MINIMUM DEPTH OF FOUR INCHES.
- ☐ 16. DURING THE GROWING SEASON ALL ANNUALS AND HERBACEOUS PERENNIALS SHALL REMAIN IN A HEALTHY CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
- ☐ 17. ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN ON PLANS.
- ☒ 19. ALL DISTURBED AREAS NOT INCLUDED IN LANDSCAPE MULCH BEDS ARE TO BE DEBRIS-RAKED AND FINED-GRADED AS NEEDED, THEN MULCH SEEDED (OR SOODED, PER PLAN) AND WATERED UNTIL A HEALTHY STAND OF TURF IS ESTABLISHED.
- ☐ 20. ANY PLANT OR OTHER LANDSCAPE MATERIAL SUBSTITUTIONS INSTALLED WITHOUT DESIGNER AND/OR OWNER APPROVAL SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE OWNER BEFORE, DURING AND AFTER INSTALLATION.

NOTE: ONLY NOTES ON THIS SHEET MARKED WITH AN ☒ APPLY TO THIS PROJECT.

## NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.



DETAIL - TRAFFIC CONTROL PLAN (AT TWO LANE ROAD)

NOT TO SCALE

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING  
BYNUM FANYO & ASSOCIATES, INC.  
Bloomington, Indiana  
(812) 332-2990 (Fax)

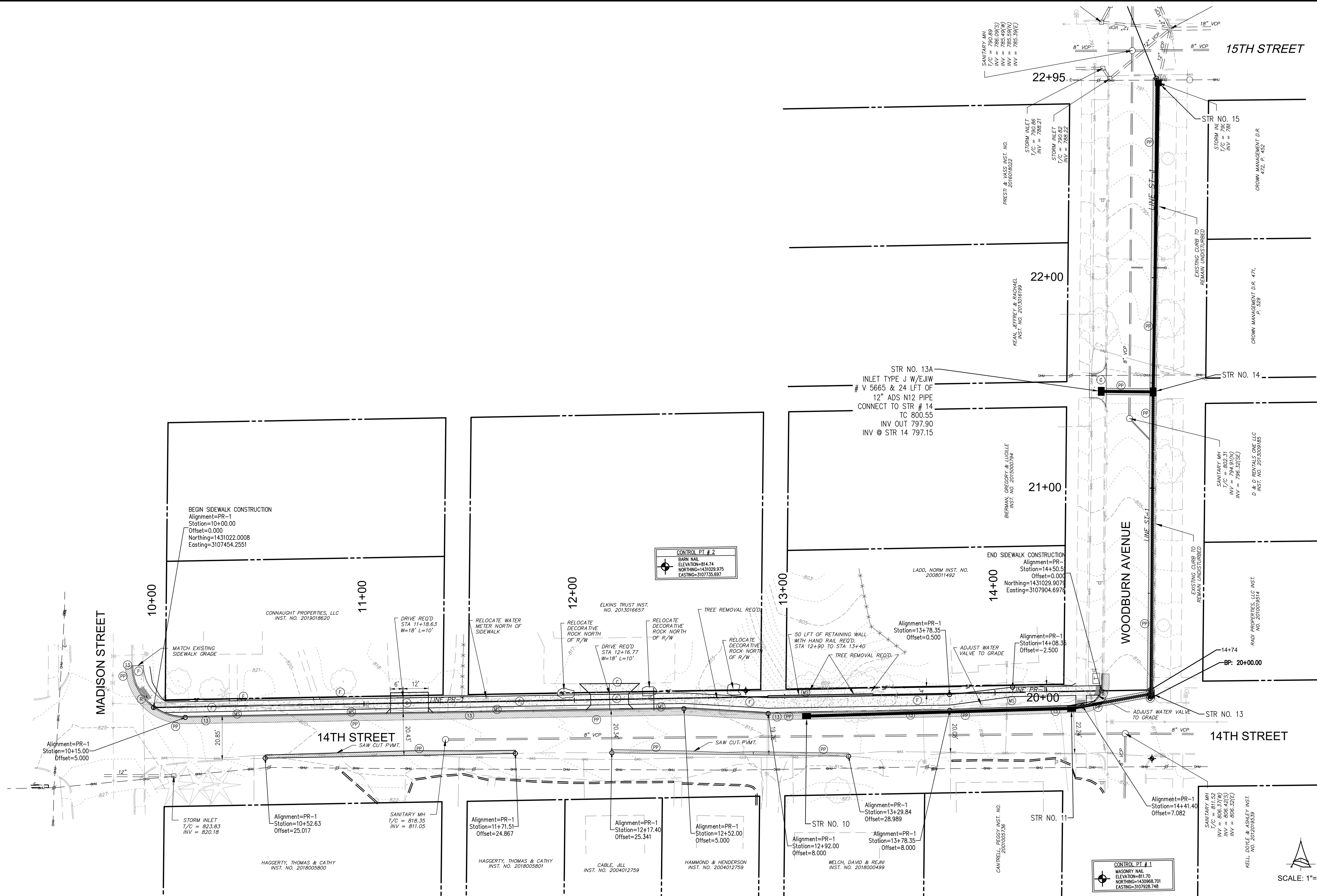
JEFFREY S. FANYO  
No. 60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER  
10-29-20  
certified by *gm*

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

title: GENERAL NOTES & LEGENDS

designed by: RLC  
drawn by: RLC  
checked by: JSF  
sheet no: C101  
project no.: 401940





CONTROL PT # 1  
MASONRY NAIL  
ELEVATION=811.70  
NORTHING=143068.701  
EASTING=3107928.748

NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

BYNUM FANYO & ASSOCIATES, INC.  
528 north walnut street  
(812) 332-8030

bloomington, indiana  
(812) 339-2990 (Fax)

60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER  
10/29/20

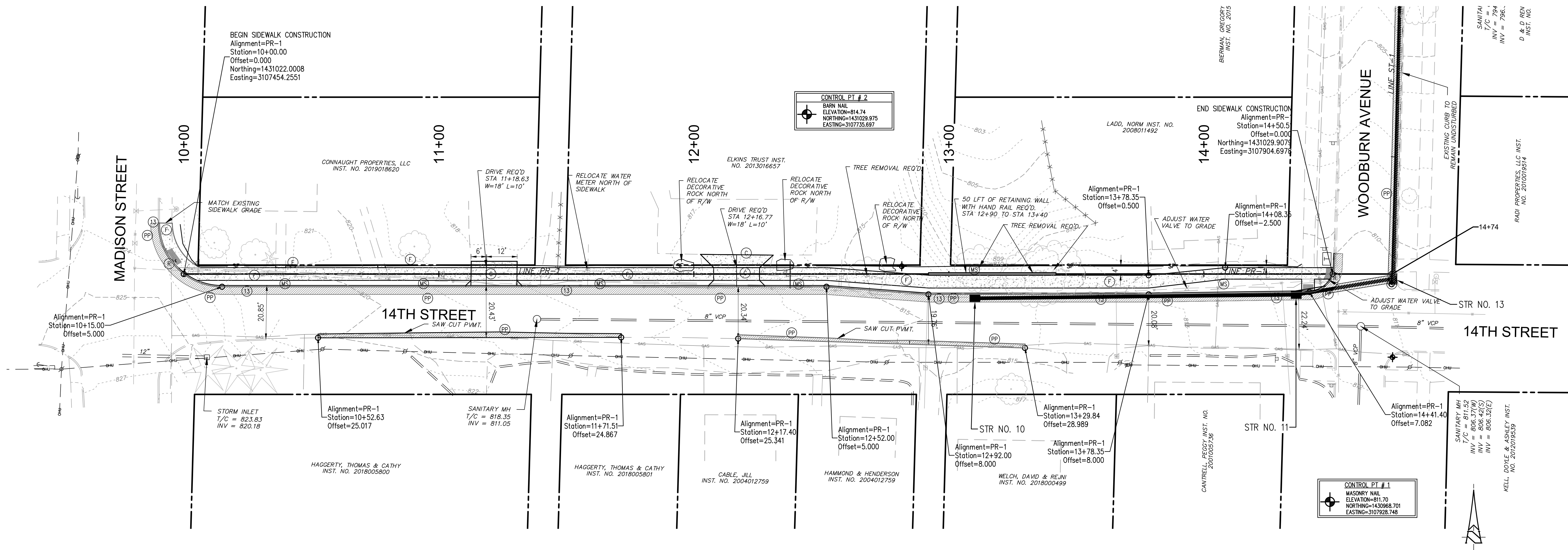
certified by *[Signature]*

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

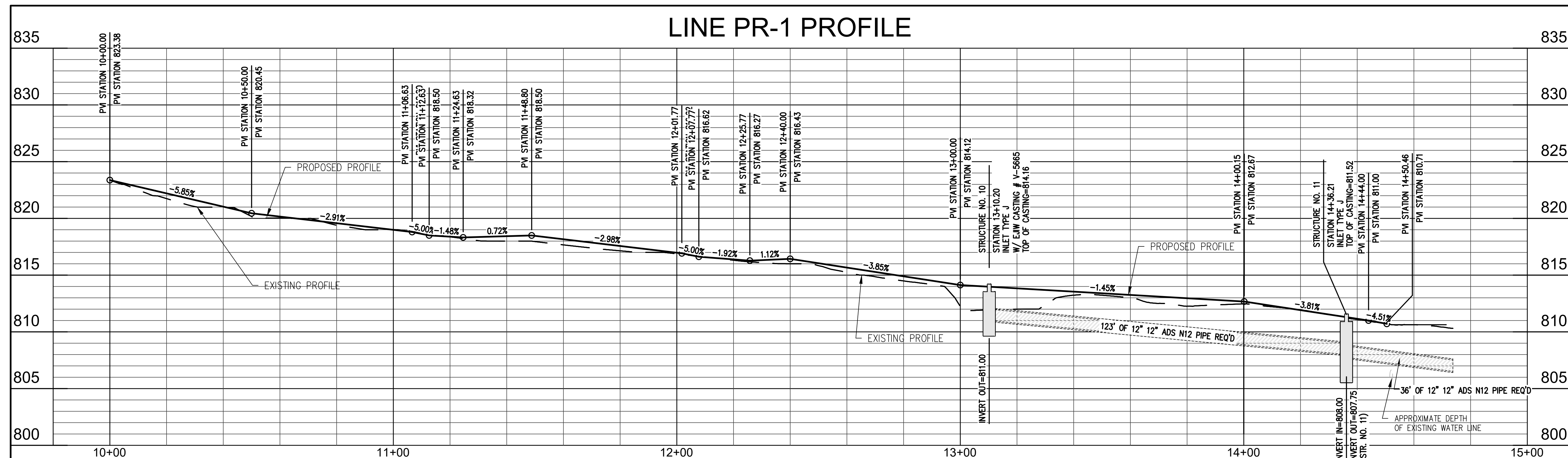
title: OVERALL PLAN

designed by: RLC  
drawn by: RLC  
checked by: JSF  
sheet no: C102  
project no.: 401940





SCALE 1" = 20' HORIZ.  
1" = 5' VERT.



#### NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

Bloomington, Indiana  
(812) 332-2990 (Fax)

BYNUM FANYO & ASSOCIATES, INC.

528 north walnut street  
(812) 332-8030

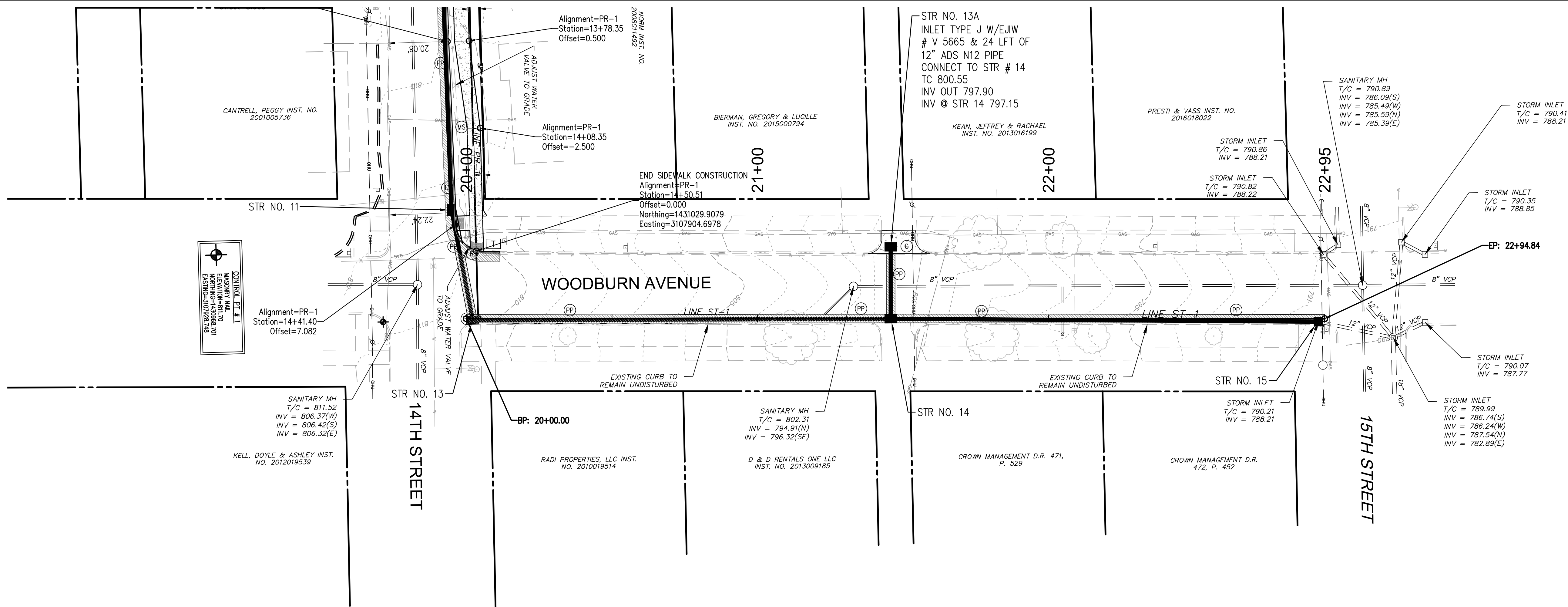
certified by

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

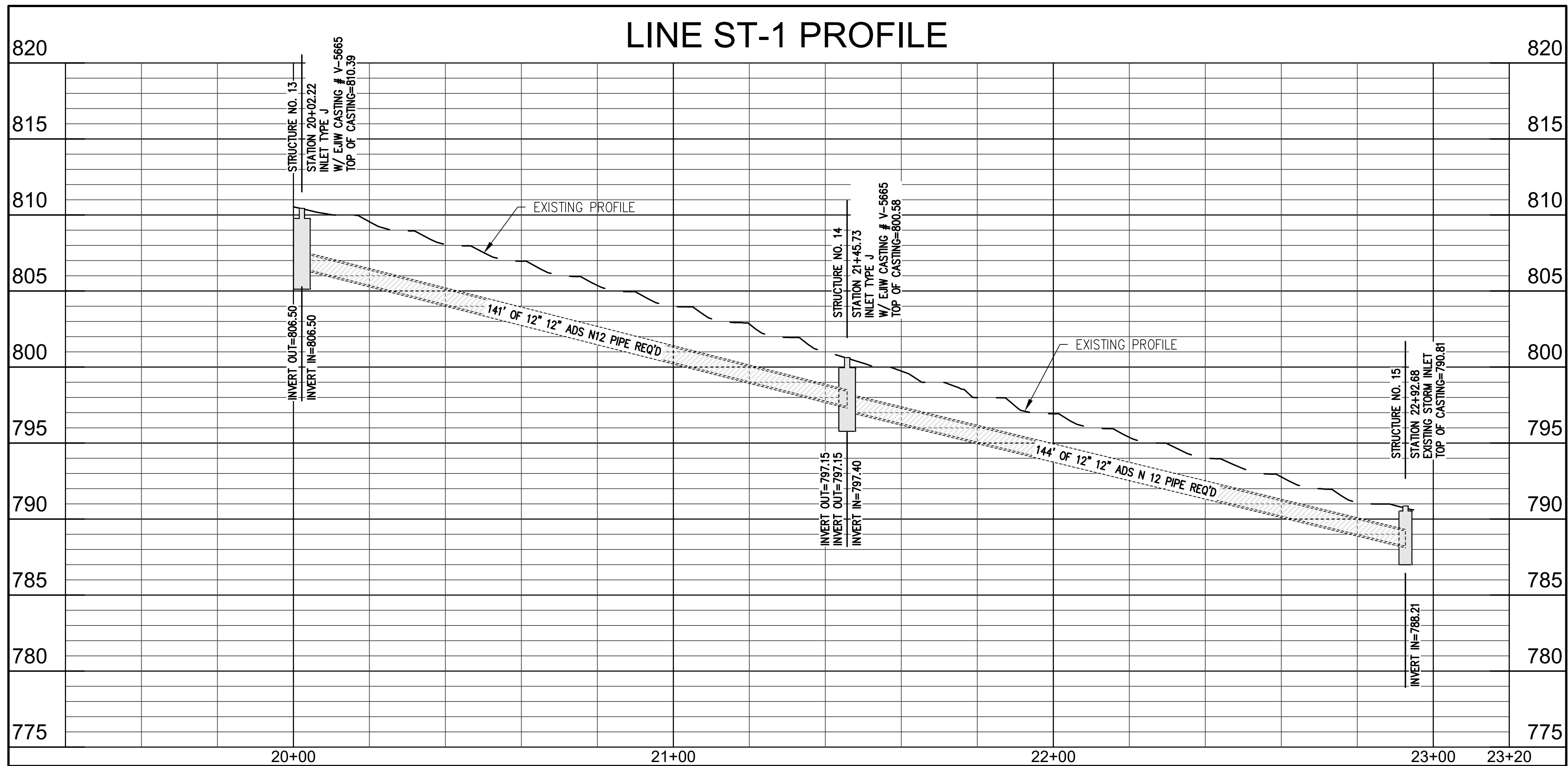
title: LINE PR-1 PLAN & PROFILE

designed by: RLC  
drawn by: RLC  
checked by: JSF  
sheet no.: C201  
project no.: 401940





SCALE 1" = 20' HORIZ.  
1" = 5' VERT.



#### NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

Bloomington, Indiana  
(812) 332-2990 (Fax)

BYNUM FANYO & ASSOCIATES, INC.

528 north walnut street  
(812) 332-8030

JEFFREY S. FANYO  
No. 60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER  
10-29-20  
certified by *[Signature]*

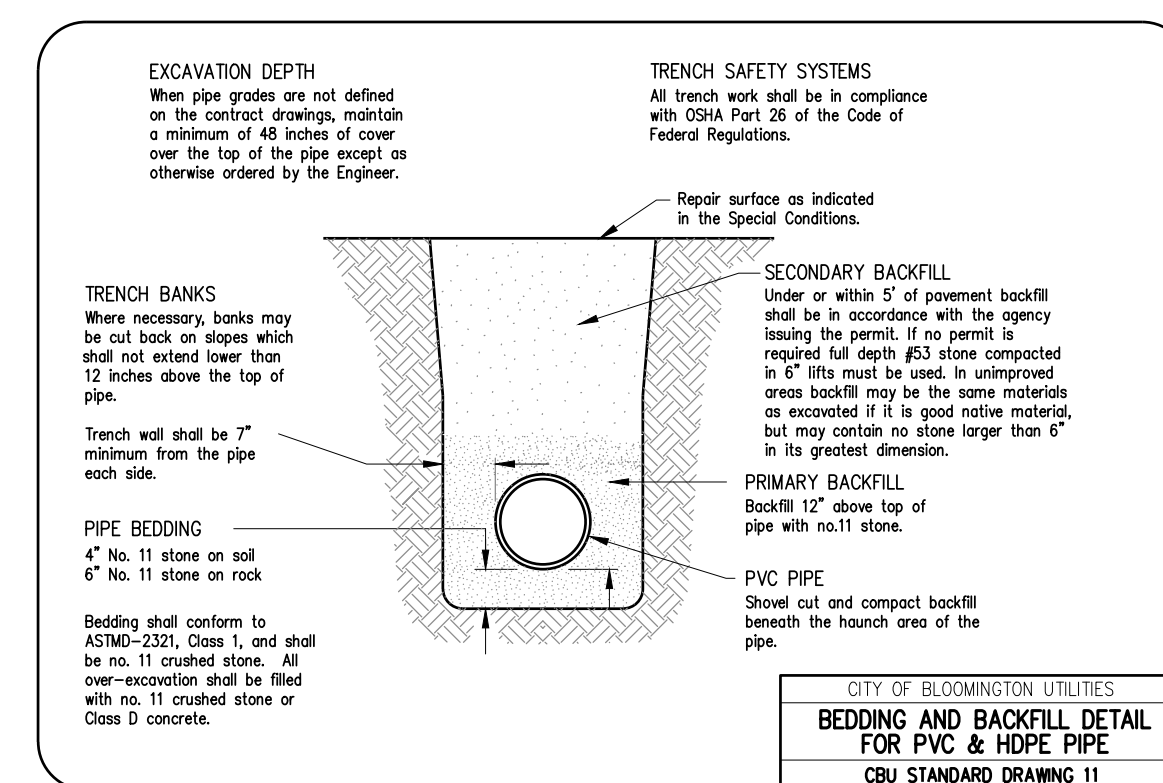
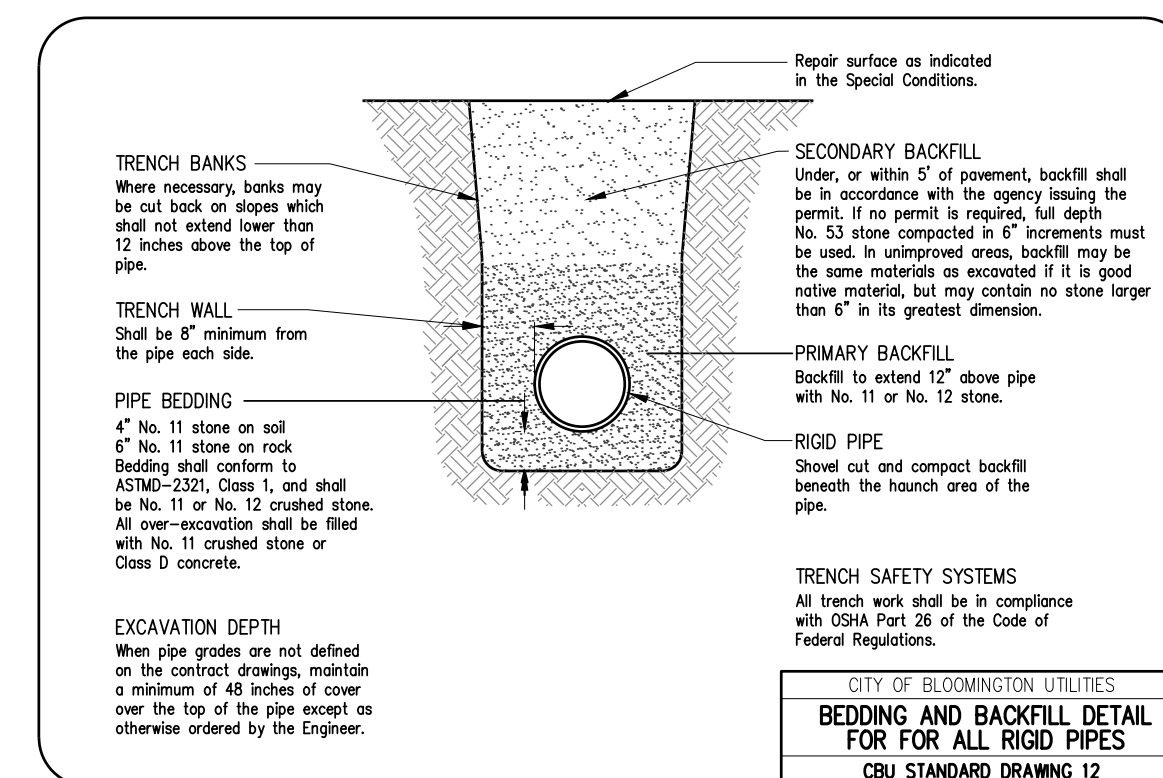
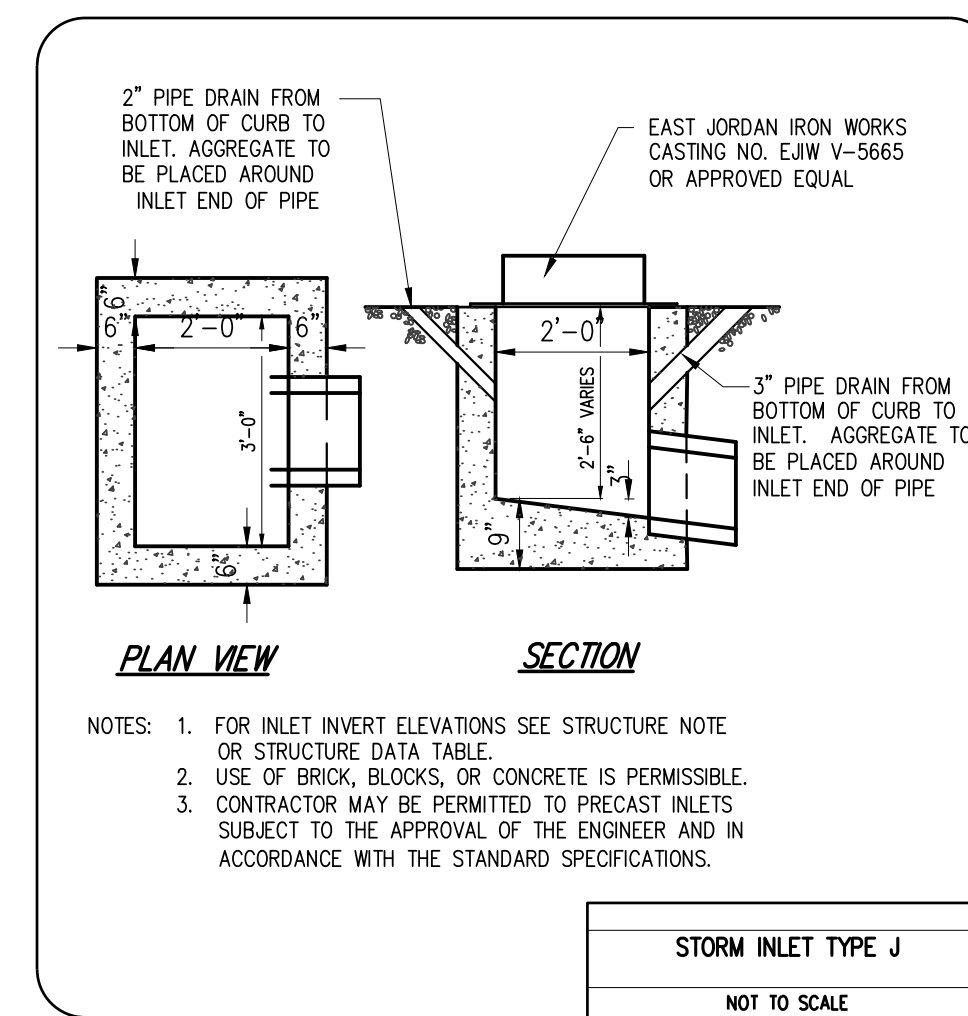
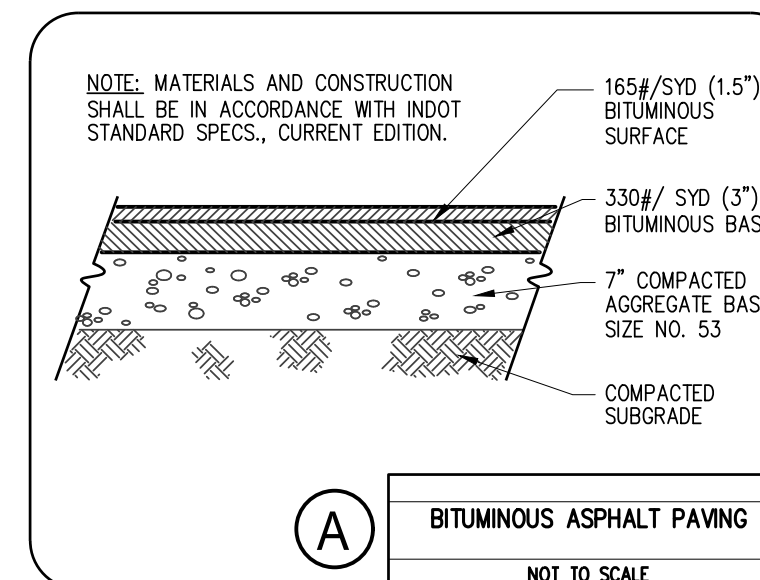
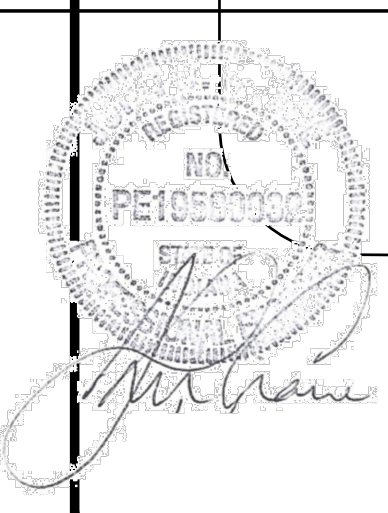
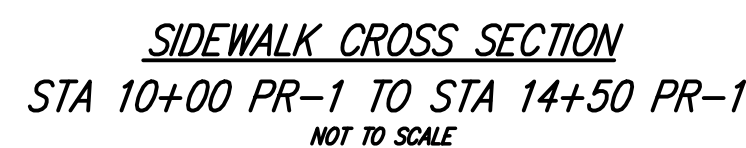
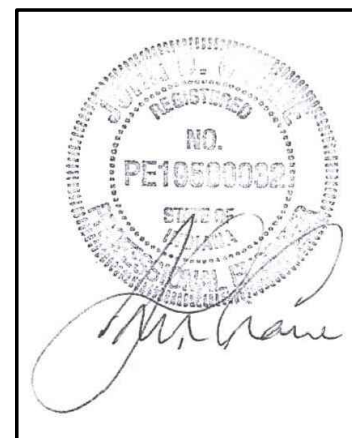
PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

title: LINE ST-1 PLAN & PROFILE

designed by: RLC  
drawn by: RLC  
checked by: JSF  
sheet no: C202  
project no.: 401940



- 1) All formwork to be constructed per ACI 301.4. Exposed edges to have 3/4" chamfer.
- 2) Concrete shall be placed per ACI 301.8. Any Embedded items (sleeves, etc) shall be installed per ACI 301.6.
- 3) Curing and protection of concrete shall be per ACI 301.12.
- 4) Footing Concrete shall be 3500 psi, Wall 4000 psi; proportioned per ACI 301.3, and include an air entraining admixture per ACI 301.2.2.1.1
- 5) Wall surface tolerance to be per ACI 10.1, Rough Form Finish to be per ACI 10.2.2
- 6) All reinforcement shall be furnished and installed per ACI 301.5
- 7) All foundation concrete shall be placed on undisturbed soils to indicated depths.
- 8) Coordinate layout and location of wall with Site and Grading Plans prepared by BFA.
- 9) A Minimum allowable soil bearing pressure of 2500 PSF is required. A Geotechnical Engineer shall be retained by the owner to ensure that the subgrade on which the footing is placed has this required allowable bearing capacity.
- 10) Brace wall as required during backfill operations.



CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

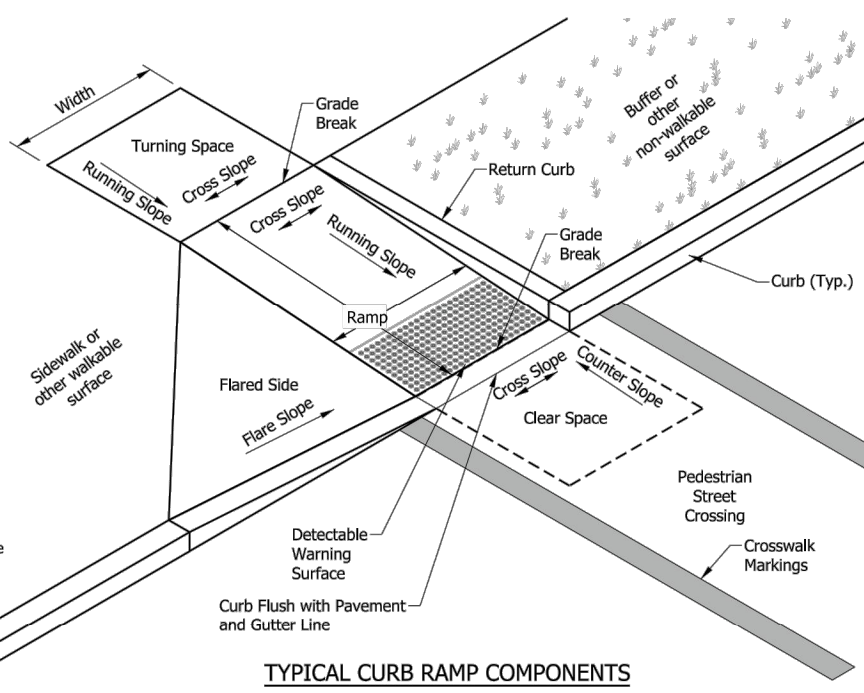
designed by: RLC  
drawn by: RLC  
checked by: JSF  
sheet no: C301  
project no.: 401940



| SHEET NO. | INDEX  |
|-----------|--|
| 1         | Curb Ramp Drawing Index and General Notes  |
| 2-3       | Perpendicular Curb Ramp Typical Placement  |
| 4         | Perpendicular Curb Ramp Component Details  |
| 5         | One-Way Directional Perpendicular Curb Ramp Typical Placement                              |
| 6         | One-Way Directional Perpendicular Curb Ramp Component Details                              |
| 7         | Parallel Curb Ramps Typical Placement  |
| 8         | Parallel Curb Ramp Component Details   |
| 9         | Blended Transition Curb Ramp, Depressed Curb Ramp and Diagonal Curb Ramp Typical Placement |
| 10        | Blended Transition Curb Ramp Component Details   |
| 11        | Median Cut-Through and Median Perpendicular Curb Ramp Typical Placement                    |
| 12-13     | Detachable Warning Surface Placement and Configuration                                     |
| 14        | Detachable Warning Surface Details   |

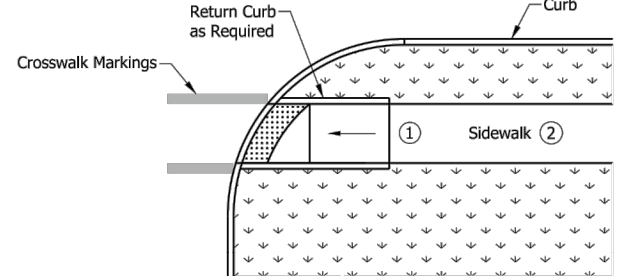
#### GENERAL NOTES:

- At slopes are steeper than relative to the sidewalk or roadway grade. Slopes at least 0.50% less than the maximum are preferred.
- Ramp or Blended Transition. A ramp or blended transition shall be used to lower or raise the sidewalk to connect with the street or highway.
- Turning Space. A turning space shall be provided at the top of a perpendicular ramp, bottom of a parallel ramp, or where the pedestrian travel requires a change in direction. A common turning space may be shared by adjacent ramps. The turning space shall have a minimum clear dimension of 4 ft x 4 ft. Where the turning space is constrained at the back of the sidewalk by a curb, retaining wall, building, or feature over 2 inches in height, the minimum clear dimension shall be 4 ft x 5 ft, with the 5-ft dimension in the direction of the ramp running slope.
- Flared Side. A flared side shall be used adjacent to a walkable surface. A flared side may be used adjacent to a non-walkable surface. A flared side shall have a maximum slope of 10.00% measured parallel to the back of the curb.
- Return Curb. A return curb is placed perpendicular to the roadway curb. A return curb may be used adjacent to a non-walkable surface. A return curb shall not be used adjacent to a walkable surface. The return curb may be omitted where the non-walkable surface is flared and the curb adjacent the roadway is tapered to meet the flush curb at the bottom of the ramp.
- Clear Space. A clear space shall be provided beyond the bottom grade break of a curb ramp wholly contained within the crosswalk and wholly outside the parallel vehicle travel path. The clear space shall have a minimum clear dimension of 4 ft x 4 ft.
- Detachable Warning Surface. A detachable warning surface shall consist of truncated domes and be placed at each street, highway, or railroad crossing. The detachable warning surface shall extend a minimum of 2 ft in the direction of pedestrian travel and be placed the entire width of a ramp, blended transition, or turning space.
- Running Slope. The running slope of a ramp, blended transition, or turning space shall be measured parallel to the direction of pedestrian travel.
  - A running slope of 2.00% or less is considered level.
  - A ramp shall have a maximum running slope of 8.33% but shall not require a ramp length to exceed 15 ft.
  - A blended transition shall have a maximum running slope of 5.00%.
  - A turning space shall have a maximum running slope of 2.00%.
- Width. Unless otherwise noted, minimum width of a ramp, blended transition, or turning space, excluding flared sides or return curbs, shall be 4 ft.
- Grade Break. A grade break at the top and bottom of a ramp, blended transition, or turning space shall be perpendicular to the running slope. Grade breaks shall not be within the ramp, blended transition, turning space, or detachable warning surface. Grade breaks shall be flush. Vertical discontinuities shall not be greater than 1/2 in. Where a discontinuity is greater than 1/2 in, the surface shall be leveled with a slope not steeper than 10:1.
- Cross Slope Exceptions. The cross slope of a ramp, blended transition, or turning space shall be measured perpendicular to the direction of pedestrian travel.
  - The maximum cross slope at a pedestrian street crossing without yield or stop control shall be 5.00%.
  - The maximum cross slope at a pedestrian street crossing with yield or stop control shall be 2.00%.
  - The maximum cross slope at a midblock crossing shall be the established grade of the adjacent roadway.
- Counter Slope. A counter slope is the cross slope of the gutter or street adjacent the running slope of the ramp, blended transition, or turning space. See Standard Drawing E 604-SWCR-14 for counter slope details.
- Objects such as a utility cover, vault frame, and grating shall be placed outside the curb ramp.
- Curb ramps shall be placed within the marked crosswalk area.
- Drainage inlets should be located uphill from a curb ramp to prevent ponding in the path of pedestrian travel.



| INDIANA DEPARTMENT OF TRANSPORTATION      |                                  |          |      |
|---|----------------------------------|----------|------|
| CURB RAMP DRAWING INDEX AND GENERAL NOTES |                                  |          |      |
| SEPTEMBER 2018                            |                                  |          |      |
| STANDARD DRAWING NO.                      | E 604-SWCR-01                    |          |      |
|   | <i>/s/ Elizabeth W. Phillips</i> | 03/29/18 | DATE |
|   | DESIGN STANDARDS ENGINEER        |          |      |
|   | <i>/s/ John Leckie</i>           | 04/25/18 | DATE |
|   | CHIEF ENGINEER                   |          |      |

#### ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP ADJACENT CURB



#### ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP WITH BUFFER

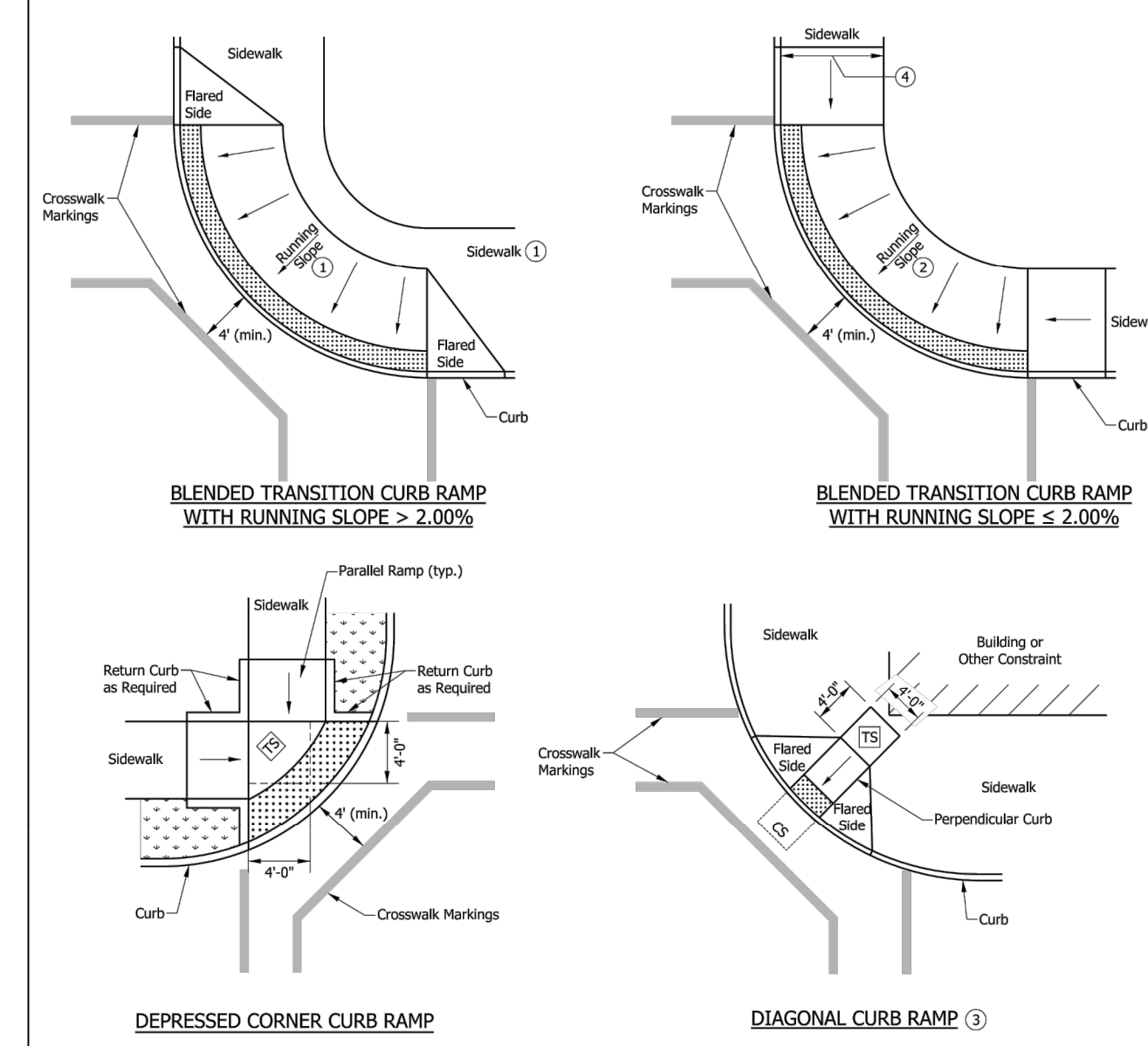
#### NOTES:

- A turning space is not required at the top of the ramp for a one-way directional perpendicular curb ramp.
- Where there is no buffer between the sidewalk and curb the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SWCR for sidewalk details.

#### LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detachable Warning Surface
- Turning Space
- Clear Space

| INDIANA DEPARTMENT OF TRANSPORTATION                          |                                  |          |      |
|---|----------------------------------|----------|------|
| ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP TYPICAL PLACEMENT |                                  |          |      |
| SEPTEMBER 2016  |                                  |          |      |
| STANDARD DRAWING NO.  | E 604-SWCR-05                    |          |      |
|   | <i>/s/ Elizabeth W. Phillips</i> | 03/15/16 | DATE |
|   | DESIGN STANDARDS ENGINEER        |          |      |
|   | <i>/s/ Mark A. Miller</i>        | 03/18/16 | DATE |
|   | CHIEF ENGINEER                   |          |      |



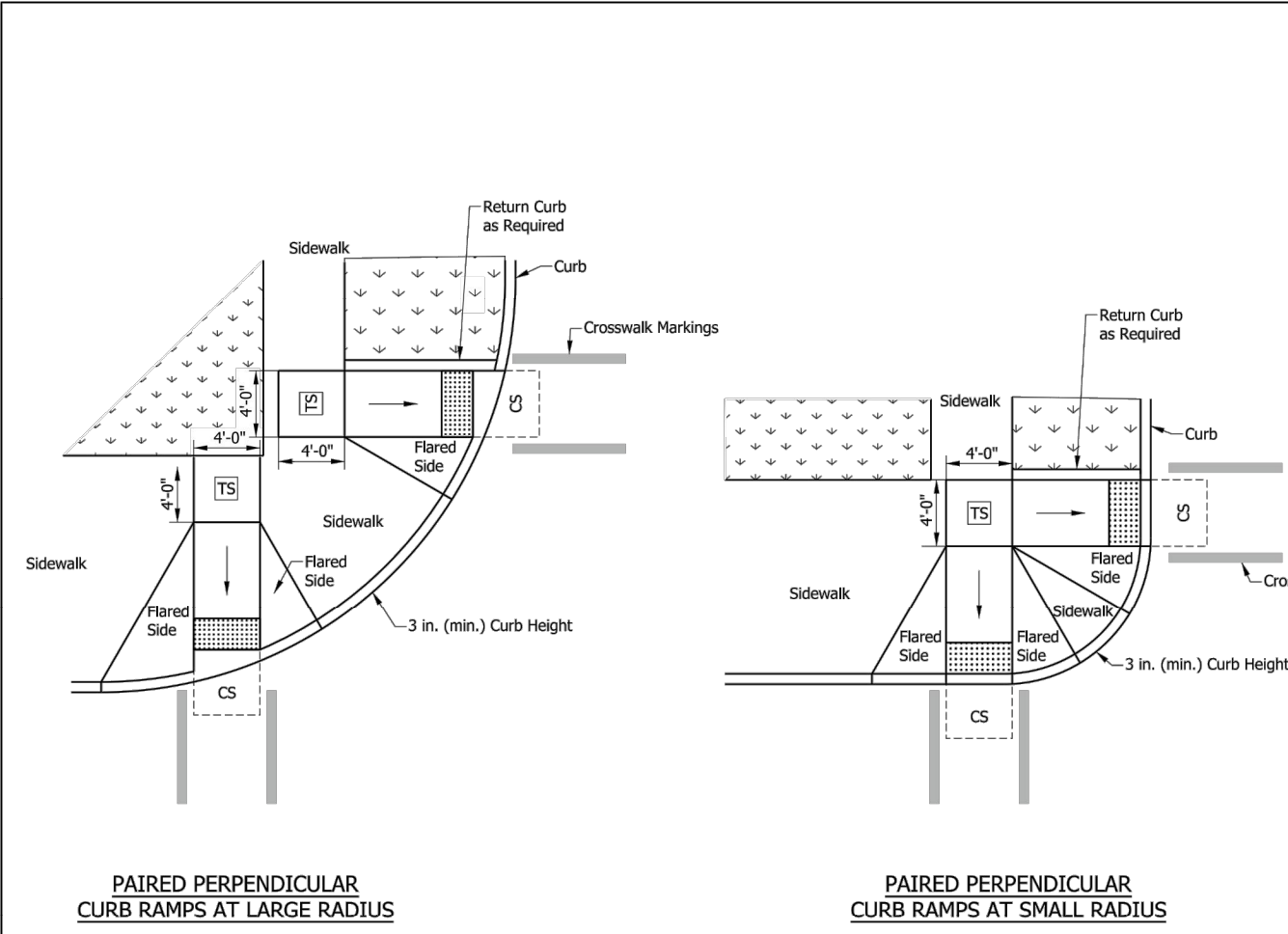
#### NOTES:

- Where the running slope is greater than 2.00%, a 4-ft minimum sidewalk shall continue behind the blended transition. The running slope shall not exceed 5.00%.
- Where the running slope is less than or equal to 2.00% a 4-ft minimum sidewalk is not required behind the blended transition.
- A diagonal curb ramp shall not be used for new construction. For an alteration project, a diagonal curb ramp shall be used only when existing physical conditions prevent parallel curb ramps, a blended transition curb ramp, or a depressed corner curb ramp from being provided.
- Where there is no buffer between the sidewalk and curb the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SWCR for sidewalk details.

#### LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detachable Warning Surface
- Turning Space
- Clear Space

| INDIANA DEPARTMENT OF TRANSPORTATION  |                                  |          |      |
|---|----------------------------------|----------|------|
| BLENDED TRANSITION CURB RAMP, DEPRESSED CORNER CURB RAMP AND DIAGONAL CURB RAMP TYPICAL PLACEMENT |                                  |          |      |
| SEPTEMBER 2018  |                                  |          |      |
| STANDARD DRAWING NO.  | E 604-SWCR-09                    |          |      |
|   | <i>/s/ Elizabeth W. Phillips</i> | 03/29/18 | DATE |
|   | DESIGN STANDARDS ENGINEER        |          |      |
|   | <i>/s/ John Leckie</i>           | 04/25/18 | DATE |
|   | CHIEF ENGINEER                   |          |      |



#### NOTE:

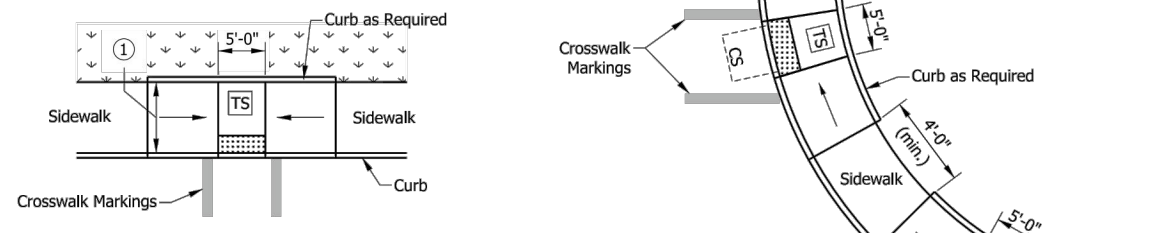
- The turning space shall have a minimum clear dimension of 4 ft x 4 ft and a running slope of 2.00% maximum. Where the turning space is constrained at the back of the sidewalk, the minimum clear dimension shall be 4 ft x 5 ft, with the 5-ft dimension in the direction of the ramp running slope.

#### LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detachable Warning Surface
- Turning Space
- Clear Space

| INDIANA DEPARTMENT OF TRANSPORTATION             |                                  |          |      |
|--|----------------------------------|----------|------|
| PAIRED PERPENDICULAR CURB RAMP TYPICAL PLACEMENT |                                  |          |      |
| SEPTEMBER 2016                                   |                                  |          |      |
| STANDARD DRAWING NO.                             | E 604-SWCR-03                    |          |      |
|  | <i>/s/ Elizabeth W. Phillips</i> | 03/15/16 | DATE |
|  | DESIGN STANDARDS ENGINEER        |          |      |
|  | <i>/s/ Mark A. Miller</i>        | 03/18/16 | DATE |
|  | CHIEF ENGINEER                   |          |      |

#### MIDBLOCK CROSSING CURB RAMP



#### PAIRED PARALLEL CURB RAMP ALONG LARGE RADIUS



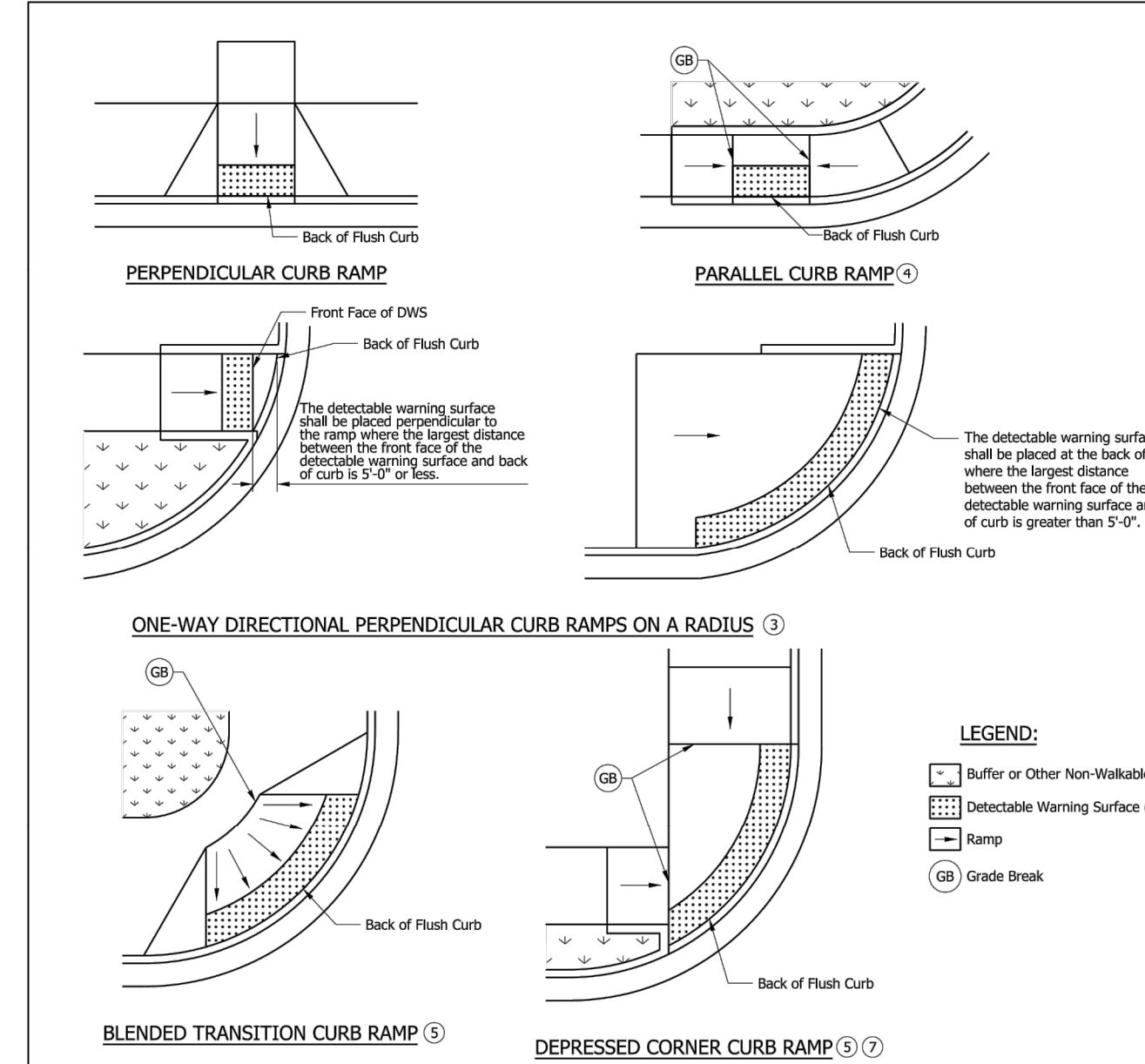
#### NOTES:

- Where there is no buffer between the sidewalk and curb the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SWCR for sidewalk details.
- The turning space shall have a minimum clear dimension of 4 ft x 4 ft and a running slope of 2.00% maximum. Where the turning space is constrained at the back of the sidewalk, the minimum clear dimension shall be 4 ft x 5 ft, with the 5-ft dimension in the direction of the ramp running slope.

#### LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detachable Warning Surface
- Turning Space
- Clear Space

| INDIANA DEPARTMENT OF TRANSPORTATION  |                                  |          |      |
|---|----------------------------------|----------|------|
| PAIRED PARALLEL CURB RAMP AND MIDBLOCK CROSSING CURB RAMP TYPICAL PLACEMENT |                                  |          |      |
| SEPTEMBER 2016  |                                  |          |      |
| STANDARD DRAWING NO.  | E 604-SWCR-07                    |          |      |
|   | <i>/s/ Elizabeth W. Phillips</i> | 03/15/16 | DATE |
|   | DESIGN STANDARDS ENGINEER        |          |      |
|   | <i>/s/ Mark A. Miller</i>        | 03/18/16 | DATE |
|   | CHIEF ENGINEER                   |          |      |

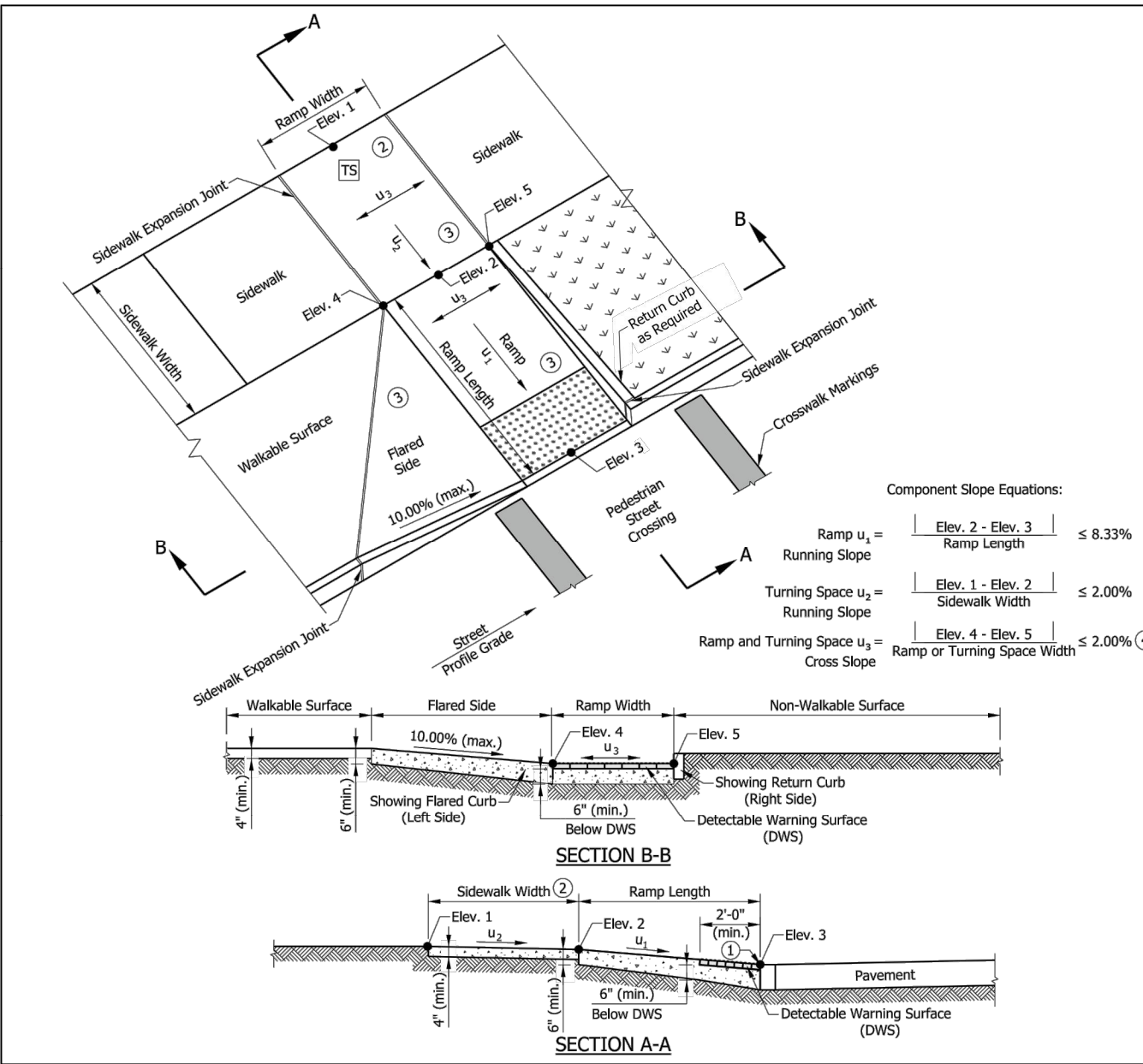


#### NOTES:

- A detachable warning surface shall be placed at each street, highway, or railroad crossing. See Standard Drawing E 604-SWCR-03 for a detachable warning surface placement at a sidewalk driveway crossing.
- The detachable warning surface shall extend a minimum of 2 ft in the direction of pedestrian travel and extend the full width as shown. The detachable warning surface shall not be placed across a grade break.
- Where the distance from the face of the detachable warning surface is 5 ft or less from the back of curb, the detachable warning surface shall be placed perpendicular to the ramp. Where the distance from the face of the detachable warning surface is more than 5 ft from the back of curb, the detachable warning surface shall be placed at the back of curb as shown or in an alternate placement configuration. See Standard Drawing E 604-SWCR-13 for alternate detachable warning surface placement.
- The detachable warning surface on a parallel curb ramp shall be placed on the turning space at the back of curb.
- The detachable warning surface on a blended transition or depressed corner shall be placed at the back of curb as shown or in an alternate placement configuration. See Standard Drawing E 604-SWCR-13 for alternate detachable warning surface placement.
- See Standard Drawing E 604-SWCR-14 for detachable warning surface details.

#### INDIANA DEPARTMENT OF TRANSPORTATION

| DETECTABLE WARNING SURFACE PLACEMENT AND CONFIGURATION |                                  |          |      |
|--|----------------------------------|----------|------|
| SEPTEMBER 2018   |                                  |          |      |
| STANDARD DRAWING NO.                                   | E 604-SWCR-12                    |          |      |
|  | <i>/s/ Elizabeth W. Phillips</i> | 03/29/18 | DATE |
|  | DESIGN STANDARDS ENGINEER        |          |      |
|  | <i>/s/ John Leckie</i>           | 04/25/18 | DATE |
|  | CHIEF ENGINEER                   |          |      |



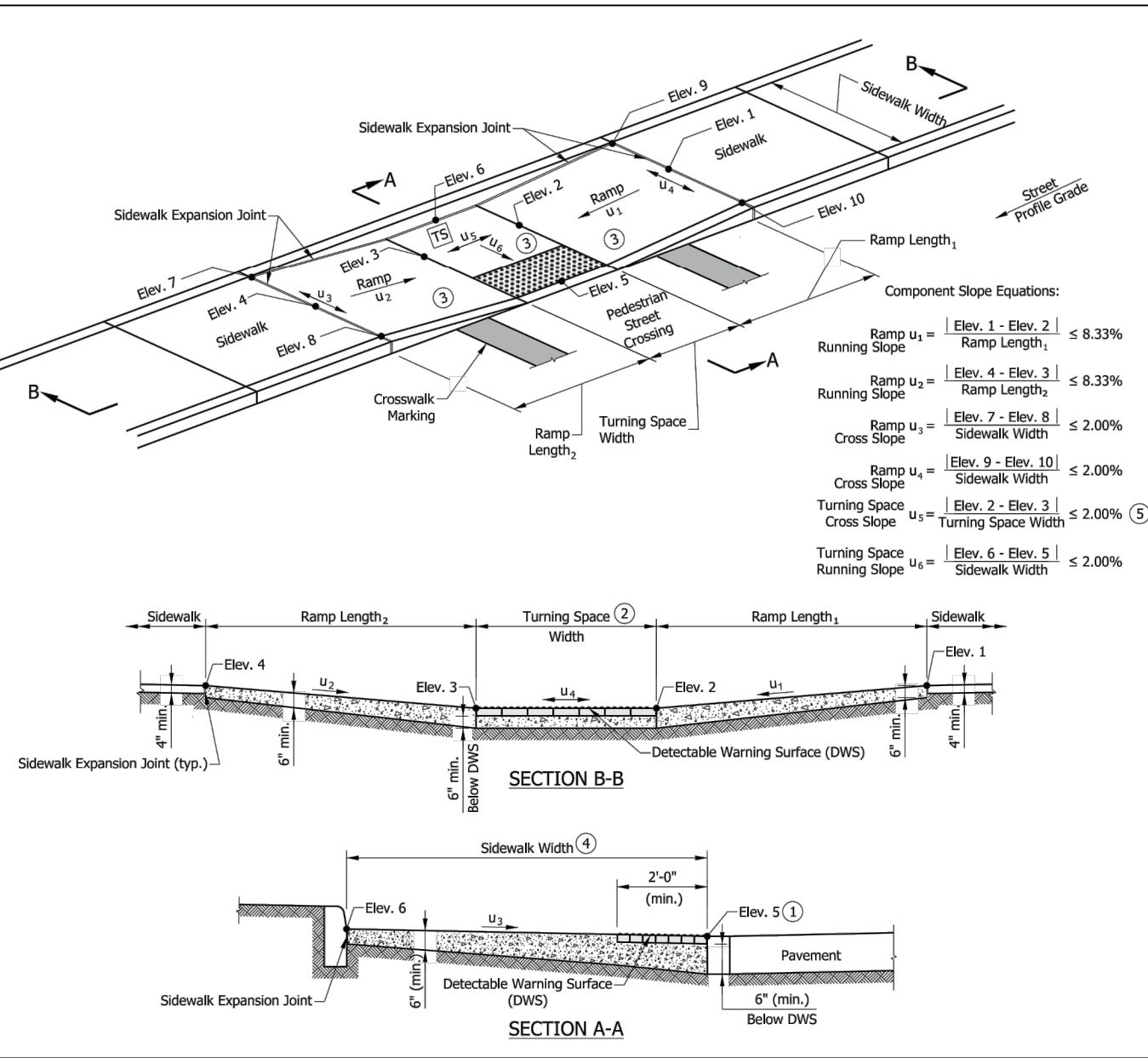
#### NOTES:

- The bottom edge of the ramp and top of curb shall be flush with the edge of adjacent pavement and gutter line.
- The turning space shall have a minimum clear dimension of 4 ft x 4 ft. Where the turning space is constrained at the back of the sidewalk, the minimum clear dimension shall be 4 ft x 5 ft, with the 5-ft dimension in the direction of the ramp running slope. Where a flared perpendicular curb ramp is used, a constrained turning space shall have a minimum clear dimension of 5 ft x 5 ft.
- Curb ramp surface shall be coarse broomed transverse to the running slope.
- See Standard Drawing E 604-SWCR-01 for cross slope exceptions.
- See Standard Drawing E 604-SWCR-12, -13, and -14 for Detectable Warning Surface placement, configuration, and details.
- See Standard Drawing E 604-CS3-01 for sidewalk expansion joint details.

#### LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detachable Warning Surface
- Turning Space

| INDIANA DEPARTMENT OF TRANSPORTATION      |                                  |          |      |
|---|----------------------------------|----------|------|
| PERPENDICULAR CURB RAMP COMPONENT DETAILS |                                  |          |      |
| SEPTEMBER 2018                            |                                  |          |      |
| STANDARD DRAWING NO.                      | E 604-SWCR-04                    |          |      |
|   | <i>/s/ Elizabeth W. Phillips</i> | 03/29/18 | DATE |
|   | DESIGN STANDARDS ENGINEER        |          |      |
|   | <i>/s/ John Leckie</i>           | 04/25/18 | DATE |
|   | CHIEF ENGINEER                   |          |      |



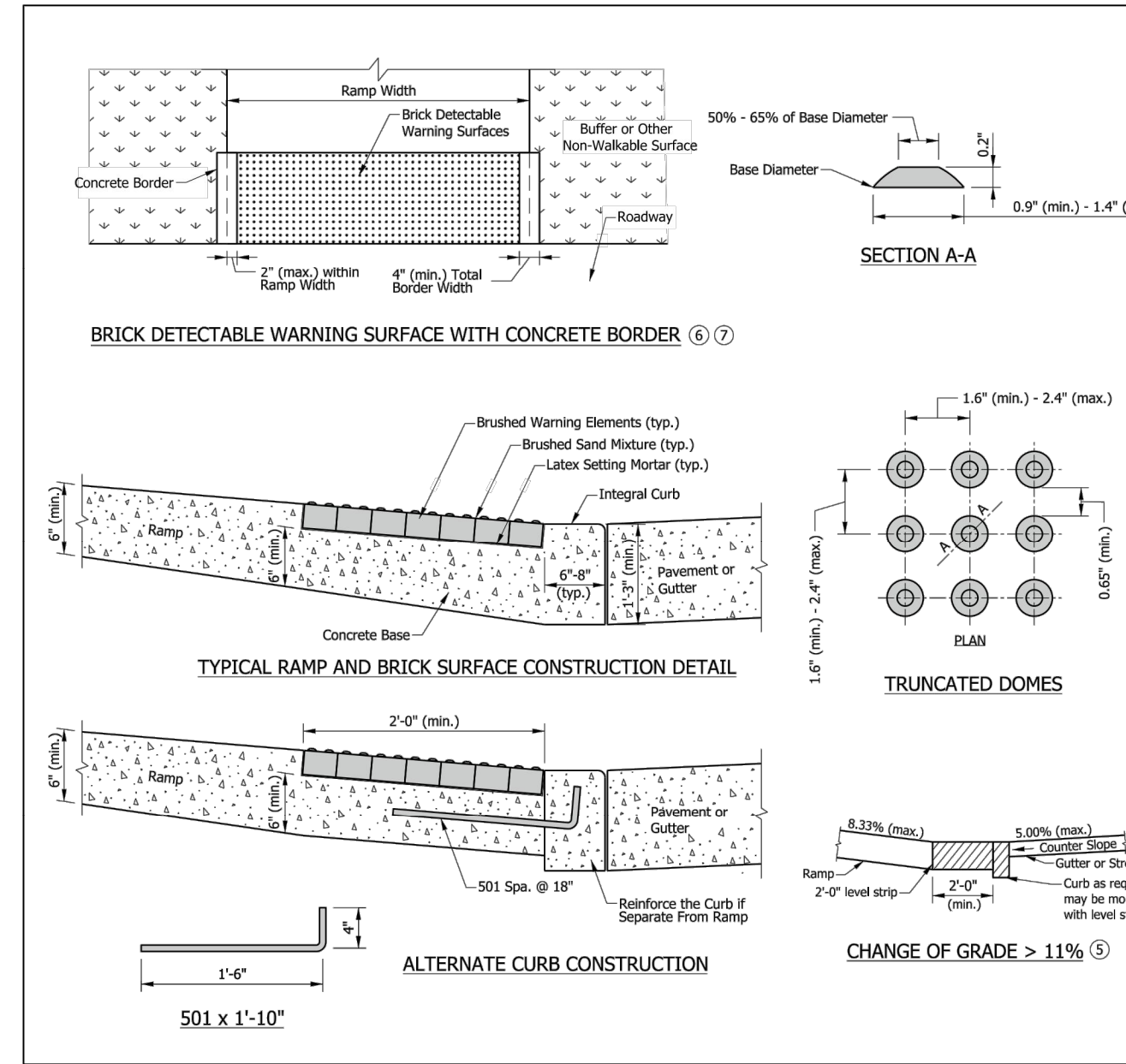
#### NOTES:

- The bottom edge of the turning space and top of curb shall be flush with the edge of adjacent pavement and gutter line.
- The turning space shall have a minimum clear dimension of 4 ft x 4 ft and a running slope of 2.00% maximum. Where the turning space is constrained at the back of the sidewalk, the minimum clear dimension shall be 4 ft x 5 ft, with the 5-ft dimension in the direction of the ramp running slope.
- Curb ramp surface shall be coarse broomed transverse to the running slope.
- Where there is no buffer between the sidewalk and curb, the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SWCR for sidewalk details.
- See Standard Drawing E 604-SWCR-01 for cross slope exceptions.
- See Standard Drawing E 604-SWCR-12, -13, and -14 for Detectable Warning Surface placement, configuration, and details.
- See Standard Drawing E 604-CS3-01 for sidewalk expansion joint details.

#### LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detachable Warning Surface
- Turning Space

| INDIANA DEPARTMENT OF TRANSPORTATION |                                  |          |      |
|--------------------------------------|----------------------------------|----------|------|
| PARALLEL CURB RAMP COMPONENT DETAILS |                                  |          |      |
| SEPTEMBER 2018                       |                                  |          |      |
| STANDARD DRAWING NO.                 | E 604-SWCR-08                    |          |      |
|                                      | <i>/s/ Elizabeth W. Phillips</i> | 03/29/18 | DATE |
|                                      | DESIGN STANDARDS ENGINEER        |          |      |
|                                      | <i>/s/ John Leckie</i>           | 04/25/18 | DATE |
|                                      | CHIEF ENGINEER                   |          |      |



#### NOTES:

- Detachable warning surface shall consist of truncated domes. Domes shall be aligned in a square or radial grid pattern with diameter and center-to-center spacing within the ranges specified.
- The detachable warning surface may be field cut. Truncated dome spacing between adjacent panels shall be within the ranges specified.
- The detachable warning surface shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.
- The detachable warning surface shall extend a minimum of 2 ft in the direction of pedestrian travel and extend the full width as shown. The detachable warning surface shall not be placed across a grade break.
- The maximum counter slope of the gutter or street at the bottom of the ramp shall be 5.00%. Where the algebraic difference between the running slope and the counter slope exceeds 1.1%, a 2-ft minimum leveling strip should be provided at the bottom of the ramp.
- Where a concrete border is used for forming, the border shall be cast monolithically with the curb ramp concrete. The concrete border shall not reduce the ramp width by more than 2 in. on each side.
- Where forming other than a concrete border is used, the edge restraint shall not encroach upon the ramp width.

NOTE: DETECTABLE WARNING SURFACE TO CONFORM TO CITY OF BLOOMINGTON SPECIFICATIONS. BRICK SURFACES WILL NOT BE ALLOWABLE.

#### INDIANA DEPARTMENT OF TRANSPORTATION

| DETECTABLE WARNING SURFACE DETAILS |                                  |          |      |
|------------------------------------|----------------------------------|----------|------|
| SEPTEMBER 2018                     |                                  |          |      |
| STANDARD DRAWING NO.               | E 604-SWCR-14                    |          |      |
|                                    | <i>/s/ Elizabeth W. Phillips</i> | 03/29/18 | DATE |
|                                    | DESIGN STANDARDS ENGINEER        |          |      |
|                                    | <i>/s/ John Leckie</i>           | 04/25/18 | DATE |
|                                    | CHIEF ENGINEER                   |          |      |

#### NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

#### revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

BYNUM FANYO & ASSOCIATES, INC.

Bloomington, Indiana  
(812) 332-2990 (Fax)

528 north walnut street  
(812) 332-8030

JEFFREY S. FANYO  
No. 60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

10-29-20

certified by *[Signature]*

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

title: MISCELLANEOUS DETAILS

designed by: RLC  
drawn by: RLC  
checked by: JSF  
sheet no: C302  
project no.: 401940



MS PRACTICE 3.12 PERMANENT SEEDING

**REQUIREMENTS** **Site and seedbed preparation:** Graded, and lime and fertilizer applied. **Plant Species:** Selected on the basis of soil type, soil pH, region of the state, time of year, and planned use of the area to be seeded (see Exhibit 3.12-C). **Mulch:** Clean grain, straw, hay, wood, fibre, etc., to protect seedbed and encourage plant growth. The mulch may need to be anchored to reduce removal by wind or water, or erosion control blankets may be considered.

**APPLICATION** (Exhibit 3.12-B, C, and D) Permanently seed all final grade areas (e.g., landscape berms, drainage swales, erosion control structures, etc.) as each is completed and all areas where additional work is not scheduled for a period of more than a year.

SITE PREPARATION:

1. Install practices needed to control erosion, sedimentation, and runoff prior to seeding. These include temporary and permanent diversions, sediment traps and basins, silt fences, and straw bale dams (Practices 3.21, 3.22, 3.72, 3.73, 3.74, and 3.75).
2. Grade the site and fill in depressions that can collect water.
3. Add topsoil to achieve needed depth for establishment of vegetation (Practice 3.02).

SEEDBED PREPARATION:

1. Test soil to determine pH and nutrient levels. (Contact your county SWCD or Cooperative Extension office for assistance and soils information, including available soil testing services.)
2. If soil pH is unsuitable for the species to be seeded, apply lime according to test recommendations.
3. Fertilize as recommended by the soil test. If testing was not done, consider applying 400–600 lbs./acre of 12–12–12 analysis, or equivalent, fertilizer.
4. Till the soil to obtain a uniform seedbed, working the fertilizer and lime into the soil 2–4 in. deep with a disk or rake operated across the slope (Exhibit 3.12-B).

SEEDING:

Optimum seeding dates are Mar. 1–May 10 and Aug. 10–Sept. 30. Permanent seeding done between May 10 and Aug. 10 may need to be irrigated. As an alternative, use temporary seeding (Practice 3.11) until the preferred date for permanent seeding.

1. Select a seeding mixture and rate from Exhibit 3.12-C, based on site conditions, soil pH, intended land use, and expected level of maintenance.
2. Apply seed uniformly with a drill or cultipacker–seeder (Exhibit 3.12-D) or by broadcasting, and cover to a depth of 1/4–1/2 in.
3. If drilling or broadcasting, firm the seedbed with a roller or cultipacker.
4. Mulch all seeded areas (Practice 3.15). Consider using erosion blankets on sloping areas (Practice 3.17). (NOTE: If seeding is done with a hydroseeder, fertilizer and mulch can be applied with the seed in a slurry mixture.)

Exhibit 3.12-C. Permanent Seeding Recommendations

This table provides several seeding options. Additional seed species and mixtures are available commercially. When selecting a mixture, consider site conditions, including soil properties (e.g., soil pH and drainage), slope aspect, and the tolerance of each species to shade and droughtiness.

Seed species and mixtures

| Seed species and mixtures | Rate per acre | Optimum soil pH |
|---------------------------|---------------|-----------------|
| 1. Perennial ryegrass     | 35 to 50 lbs. | 5.6 to 7.0      |
| + white or ladino clover* | 1 to 2 lbs.   |                 |
| 2. Kentucky bluegrass     | 20 lbs.       | 5.5 to 7.5      |

|                           |               |            |
|---------------------------|---------------|------------|
| + switchgrass             | 3 lbs.        |            |
| + timothy                 | 4 lbs.        |            |
| + perennial ryegrass      | 10 lbs.       |            |
| + white or ladino clover* | 1 to 2 lbs.   |            |
| 3. Perennial ryegrass     | 15 to 30 lbs. | 5.6 to 7.0 |
| + prairie switch grass    | 15 to 30 lbs. |            |
| 4. Prairie switch grass   | 35 to 50 lbs. | 5.5 to 7.5 |
| + ladino or white clover* | 1 to 2 lbs.   |            |

STEEP BANKS AND CUTS, LOW MAINTENANCE AREAS (NOT MOWED)

|                              |               |            |
|------------------------------|---------------|------------|
| 2. Prairie switch grass      | 35 to 50 lbs. | 5.5 to 7.5 |
| + white or ladino clover*    | 1 to 2 lbs.   |            |
| 3. Prairie switch grass      | 35 to 50 lbs. | 5.5 to 7.5 |
| + red clover*                | 10 to 20 lbs. |            |
| (Recommended north of US 40) |               |            |
| 4. Orchardgrass              | 20 to 30 lbs. | 5.6 to 7.0 |
| + red clover*                | 10 to 20 lbs. |            |
| + ladino clover*             | 1 to 2 lbs.   |            |

LAWNS AND HIGH MAINTENANCE AREAS

|   |                 |            |
|---|-----------------|------------|
| 1. Bluegrass                                      | 105 to 150 lbs. | 5.5 to 7.0 |
| 2. Perennial ryegrass (turf-type)                 | 45 to 60 lbs.   | 5.6 to 7.0 |
| + bluegrass                                       | 70 to 90 lbs.   |            |
| 3. Prairie switch grass(turf-type)130 to 107 lbs. |                 | 5.5 to 7.5 |
| + bluegrass                                       | 20 to 30 lbs.   |            |

|   |                 |            |
|---|-----------------|------------|
| CHANNLES AND AREAS OF CONCENTRATED FLOW |                 |            |
| 1. Perennial ryegrass                   | 100 to 150 lbs. | 5.6 to 7.0 |
| + white or ladino clover*               | 1 to 2 lbs.     |            |
| 2. Kentucky bluegrass                   | 20 lbs.         | 5.5 to 7.5 |

|                           |                 |            |
|---------------------------|-----------------|------------|
| + switchgrass             | 3 lbs.          |            |
| + timothy                 | 4 lbs.          |            |
| + perennial ryegrass      | 10 lbs.         |            |
| + white or ladino clover* | 1 to 2 lbs.     |            |
| 3. Prairie switch grass   | 100 to 150 lbs. | 5.5 to 7.5 |
| + ladino or white clover* | 1 to 2 lbs.     |            |
| 4. Prairie switch grass   | 100 to 150 lbs. | 5.5 to 7.5 |
| + Perennial ryegrass      | 15 to 20 lbs.   |            |
| + Kentucky bluegrass      | 15 to 20 lbs.   |            |

\* For best results: (a) legume seed should be inoculated; (b) seeding mixtures containing legumes should preferably be spring-seeded, although the grass may be fall-seeded and the legume frost-seeded (Practice 3.13); and (c) if legumes are fall-seeded, do so in early fall.

NOTE: An oat or wheat companion or nurse crop may be used with any of the above permanent seeding mixtures. If so, it is best to seed during the fall seeding period, especially after Sept. 15, and at the following rates: spring oats–1.4 to 3/4 bu./acre; wheat–no more than 1/2 bu./acre.

- MAINTENANCE**
- Inspect periodically, especially after storm events, until the stand is successfully established. (Characteristics of a successful stand include: vigorous dark green or bluish-green seedlings; uniform density with nurse plants, legumes, and grasses well inter-mixed; green leaves; and the perennials remaining green throughout the summer, at least at the plant base.)
  - Plan to add fertilizer the following growing season according to soil test recommendations.
  - Repair damaged, bare or sparse areas by filling any gullies, re-fertilizing, over- or re-seeding, and mulching.
  - If plant cover is sparse or patchy, review the plant materials chosen, soil fertility, moisture condition, and mulching; then repair the affected area either by over-seeding or by re-seeding and mulching after re-preparing the seedbed.
  - If vegetation fails to grow, consider soil testing to determine acidity or nutrient deficiency problems. (Contact your SWCD or Cooperative Extension office for assistance.)
  - If additional fertilization is needed to get a satisfactory stand, do so according to soil test recommendations.

CW TEMPORARY CONCRETE WASHOUT AREA

**REQUIREMENTS** **Capacity:** Temporary washout facilities shall be constructed above or below grade at the option of the contractor. Temporary washout facilities shall be constructed and maintained in sufficient quality and size to contain all liquid and concrete waste generated by washout operations.

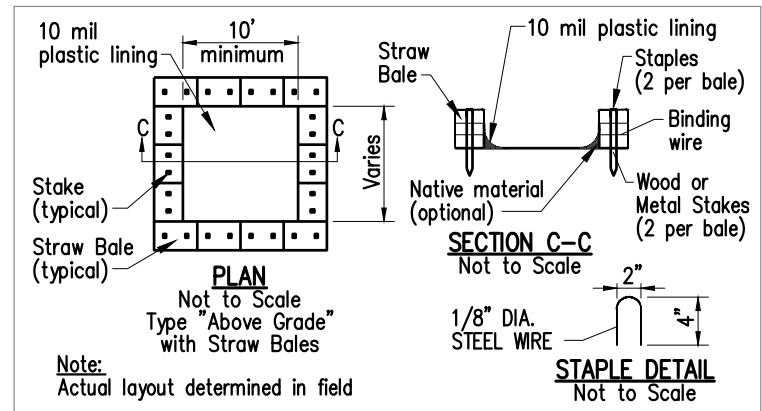
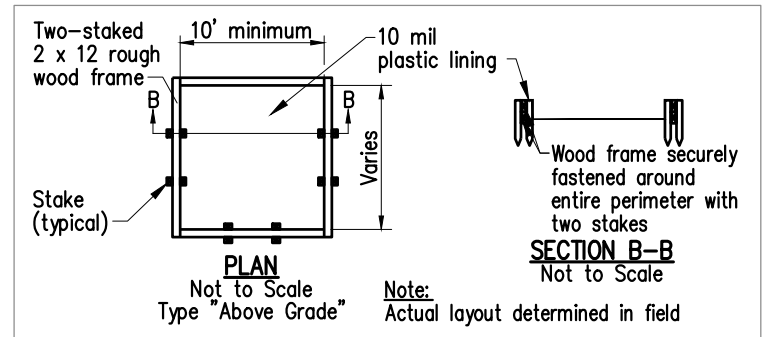
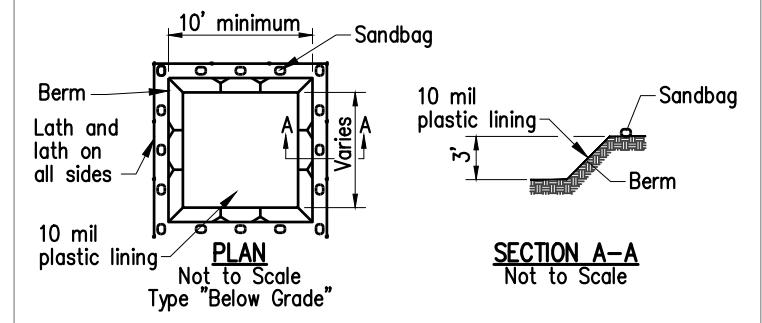
**Type:** Below grade concrete washout facilities are typical. Above grade facilities are used if excavation is not practical.

**Location:** Facilities shall be located a minimum of 50' from storm drain inlets, open drainage facilities, and water courses.

**Plastic Lining Material:** Minimum 10 mil polyethylene sheeting and should be free of holes, tears or other defects.

**Straw Bale Dimensions:** Approximately 14 in. x 18 in. x 36 in.

**Bale Anchoring:** Two 36-in. long (minimum) steel rebars or 2 x 2-in. hardwood stakes driven through each bale.



**INSTALLATION** • Temporary concrete washout facilities shall be constructed as shown in the above details, and as described below. All temporary washout facilities shall have at minimum 10' width, 3' depth, and sufficient length to contain all liquid and concrete waste generated.

- "Below Grade"**
1. A pit shall be excavated with a minimum width of 10', depth of 3' and to contain all liquid and concrete waste generated.
  2. The pit should be lined with a minimum 10 mil plastic lining which overhangs the pit rim by 5' in each direction.
  3. Sandbags shall be placed on top of the plastic lining at 3' intervals along the rim of the excavated pit.
  4. Lath and flagging shall be installed on all sides of the excavated pit to clearly mark its location.

- "Above Grade"**
1. A wood frame shall be constructed using two 2 x 12 boards staked on edge with a minimum width of 10' and length sufficient to contain all liquid and concrete waste generated.
  2. The wood frame shall be securely fastened around the entire perimeter using steel rebar or 2 in. x 2 in. hardwood stakes.
  3. The wood frame shall be lined with 10 mil plastic sheeting which shall be attached to the outside face of the wood frame.
  4. Straw bales shall be arranged such that they create a basin with a minimum width of 10' and length sufficient to contain all liquid and concrete waste generated.
  5. The straw bales shall be securely staked using steel rebar or 2 in. x 2 in. hardwood stakes. (two per bale)
  6. The basin shall be lined with 10 mil plastic sheeting which is attached to the straw bales using 4" steel wire staples. (two per bale)

- MAINTENANCE**
- Temporary concrete washout facilities should be maintained to provide adequate holding capacity with a minimum freeboard of 4 in. for above grade facilities and 12 in. for below grade facilities. Maintaining temporary concrete washout facilities should include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials should be removed and disposed of.
  - Washout facilities must be cleaned, or new facilities must be constructed ready for use once the washout is 75% full.
  - At the conclusion of concrete construction activities the temporary concrete washout area shall be removed and returned to its original condition.

SP TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT PAD

**PURPOSE** • To provide a stable entrance/exit condition from the construction site. • To keep mud and sediment off public roads.

**REQUIREMENTS** (Exhibit 3.01-B) **Material:** 2–3 in. washed stone (NDOT CA No. 2) over a stable foundation.

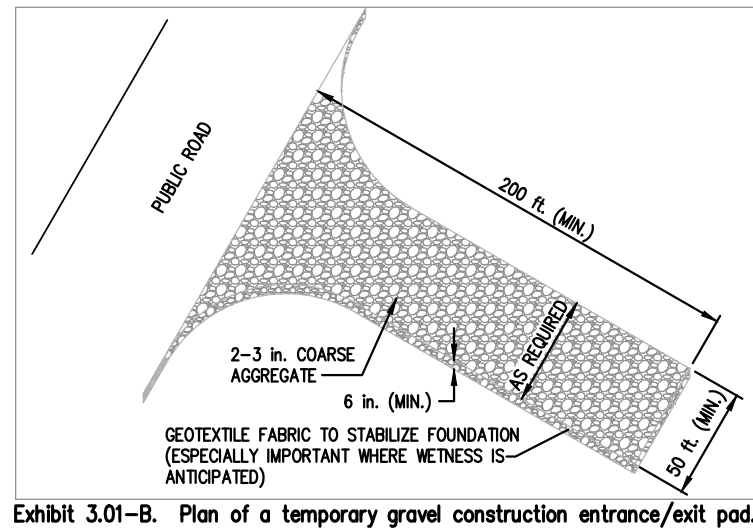
**Thickness:** 6 in. minimum

**Width:** 50 ft. minimum or full width of entrance/exit roadway, whichever is greater.

**Length:** 200 ft. minimum. The length can be shorter for small sites such as for an individual home.

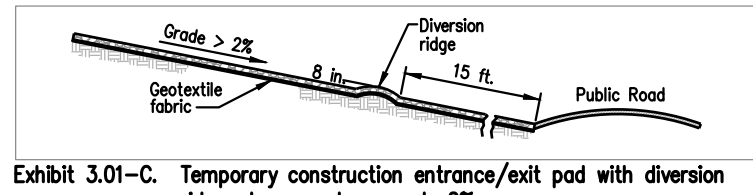
**Washing facility (optional):** Level area with 3 in. washed stone minimum or a commercial rack, and waste water diverted to a sediment trap or basin (Practice 3.72).

**Geotextile fabric underliner:** May be used under wet conditions or for soils within a high seasonal water table to provide greater bearing strength.



**INSTALLATION** (Exhibit 3.01-C) 1. Avoid locating on steep slopes or at curves in public roads.

2. Remove all vegetation and other objectionable material from the foundation area, and grade and crown for positive drainage.
3. If slope towards the road exceeds 2%, construct a 6–8 in.–high water bar (ridge) with 3:1 side slopes across the foundation area about 15 ft. from the entrance to divert runoff away from the road (Practice 3.24) (see Exhibit 3.01-C).
4. Install pipe under the pad if needed to maintain proper public road drainage.
5. If wet conditions are anticipated, place geotextile fabric on the graded foundation to improve stability.
6. Place stone to dimensions and grade shown in the erosion/sediment control plan, leaving the surface smooth and slope for drainage.
7. Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.



- MAINTENANCE**
- Inspect entrance pad and sediment disposal area weekly and after storm events or heavy use.
  - Reshape pad as needed for drainage and runoff control.
  - Top dress with clean stone as needed.
  - Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping. Flushing should only be used if the water is conveyed into a sediment trap or basin.
  - Repair any broken road pavement immediately.

GP PRACTICE 3.61-B GRAVEL CURB INLET PROTECTION

**REQUIREMENTS** (Exhibit 3.61-B) **Contributing drainage area:** 1 acre maximum.

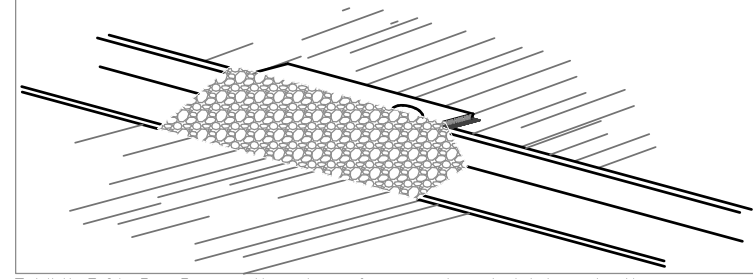
**Capacity:** Runoff from a 2–yr. frequency, 24-hr. duration storm event entering the storm drain without bypass flow.

**Location:** At curb inlets where ponding is more likely to cause inconvenience or damage.

**Gravel:** 1–2 in. diameter (NDOT CA No. 2)

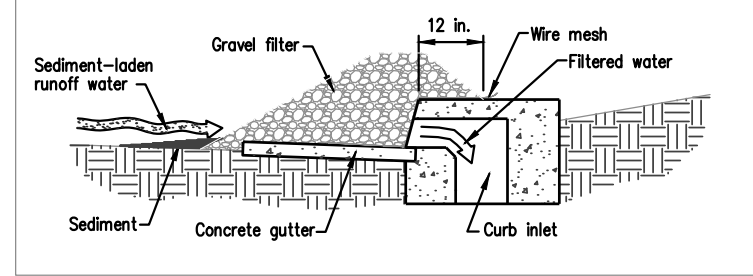
**Wire mesh:** Chicken wire or hardware cloth with 1/2-in. openings.

**Geotextile fabric (optional):** For Filtration.



**INSTALLATION** (Exhibit 3.61-B) 1. Install gravel curb inlet protections as soon as the streets are paved in a new development situation or before land-disturbing activities in stabilized areas.

2. Place wire mesh over the curb inlet opening and/or grate so it extends at least 12 in. beyond both top and bottom of the opening/grate.
3. Install geotextile fabric over the wire mesh for additional filtration (optional).
4. Pile gravel over the wire mesh to anchor it against the curb, covering the inlet opening completely.



- MAINTENANCE**
- After each storm event, remove sediment and replace the gravel; replace the geotextile filter fabric if used.
  - Periodically remove sediment and tracked-on soil from the street (but not by flushing with water) to reduce the sediment load on the curb inlet practice.
  - Inspect periodically, and repair damage caused by vehicles.
  - When the contributing drainage area has been stabilized, remove the gravel, wire mesh, geotextile fabric, and any sediment, and dispose of them properly.

SF PRACTICE 3.74 SILT FENCE (SEDIMENT FENCE)

**PURPOSE** To retain sediment from small, sloping disturbed areas by reducing the velocity of sheet flow.

(NOTE: Silt fence captures sediment by ponding water to allow deposition, not by filtration. Although the practice usually works best in conjunction with temporary basins, traps, or diversions, it can be sufficiently effective to be used alone. A silt fence is not recommended for use as a diversion; nor is it to be used across a stream, channel or anywhere that concentrated flow is anticipated.)

**REQUIREMENTS** (Exhibit 3.74-B and C) **Drainage Area:** Limited to 1/4 acre per 100 ft. of fence; further restricted by slope steepness (see Exhibit 3.74-B).

**Location:** Fence nearly level, approximately following the land contour, and at least 10 ft. from toe of slope to provide a broad, shallow sediment pad.

**Trench:** 8 in. minimum depth, flat-bottom or v-shaped, filled with compacted soil or gravel to bury lower portion of support wire and/or fence fabric.

**Support posts:** 2 x 2-in. hardwood posts (if used) or steel fence posts set at least 1 ft. deep.\* (Steel posts should projections for fastening fabric.)

**Spacing of posts:** 8 ft. maximum if fence supported by wire, 6 ft. for extra-strength fabric without wire backing.

| Land slope    | Max. distance above fence |
|---------------|---------------------------|
| Less than 2%  | 100 ft.                   |
| 2 to 5%       | 75 ft.                    |
| 5 to 10%      | 50 ft.                    |
| 10 to 20%     | 25 ft.                    |
| More than 20% | 15 ft.                    |

**Fence fabric:** Woven or non-woven geotextile fabric with specified filtering efficiency and tensile strength (see Exhibit 3.74-C) and containing UV inhibitors and stabilizers to ensure 8-mo. minimum life at temperatures 0°–120°.

\* Some commercial silt fences come ready to install, with support posts attached and requiring no wire support.

Exhibit 3.74-C. Specifications Minimums for Silt Fence Fabric.

| Physical Property                  | Woven Fabric         | Non-woven fabric     |
|------------------------------------|----------------------|----------------------|
| Filtering efficiency               | 85%                  | 85%                  |
| Tensile strength at 20% elongation | 30lbs./linear in.    | 50lbs./linear in.    |
| Standard strength                  | 50lbs./linear in.    | 70lbs./linear in.    |
| Extra strength                     | 70lbs./linear in.    | 100lbs./linear in.   |
| Slurry flow rate                   | 0.3 gal./min./sq.ft. | 4.5 gal./min./sq.ft. |
| Water flow rate                    | 15 gal./min./sq.ft.  | 220 gal./min./sq.ft. |
| UV resistance                      | 70%                  | 85%                  |

**Outlet (optional):** To allow for safe storm flow bypass without overtopping fence. Placed along fence line to limit water depth to 1 1/2 ft. maximum; crest=1 ft. high maximum; weir width=4 ft. maximum; splash pad=5 ft. wide, 3 ft. long, 1 ft. thick minimum.

**INSTALLATION** **SITE PREPARATION:** 1. Plan for the fence to be at least 10 ft. from the toe of the slope to provide a sediment storage area. 2. Provide access to the area if sediment cleanout will be needed.

OUTLET CONSTRUCTION (OPTIONAL)

1. Determine the appropriate location for a reinforced, stabilized bypass flow outlet.
2. Set the outlet elevation so that water depth cannot exceed 1 1/2 ft. at the lowest point along the fence line.
3. Locate the outlet weir support posts no more than 4 ft. apart, and install a horizontal brace between them. (Weir height should be no more than 1 ft. and water depth no more than 1 1/2 ft. anywhere else along the fence.)
4. Excavate the foundation for the outlet splash pad to minims of 1 ft. deep, 5 ft. wide and 5 ft. long on level grade.
5. Fill the excavated foundation with NDOT CA No. 1 stone, being careful that the finished surface blends with the surrounding area, allowing no overfill.
6. Stabilize the area around the pad.

OUTLET CONSTRUCTION (OPTIONAL)

1. Along the entire intended fence line, dig an 8 in. deep flat-bottomed or V-shaped trench.
2. On the downslope side of the trench, drive the wood or steel support posts at least 1 ft. into the ground, spacing them no more than 8 ft. apart if the fence is supported by wire or 6 ft. if extra strength fabric is used without support wire. Adjust spacing, if necessary, to ensure that posts are set at the low points along the fence line. (NOTE: If the fence has pre-attached posts or stakes, drive them deep enough so the fabric is satisfactory in the trench as described in step 6.)
3. Fasten support wire fence to the upslope side of the posts, extending it 8 in. into the trench.
4. Run a continuous length of geotextile fabric in front of the support wire and posts avoiding joints, particularly at low points in the fence line.
5. If a joint is necessary, nail the overlap to the nearest post with a lath.
6. Place the bottom 1 ft. of fabric in the 8 in. deep trench, extending the remaining 4 in. toward the upslope side.
7. Backfill the trench with compacted earth or gravel.

NOTE: If using a pre-packed commercial silt fence rather than constructing one, follow the manufacturer's installation instructions.

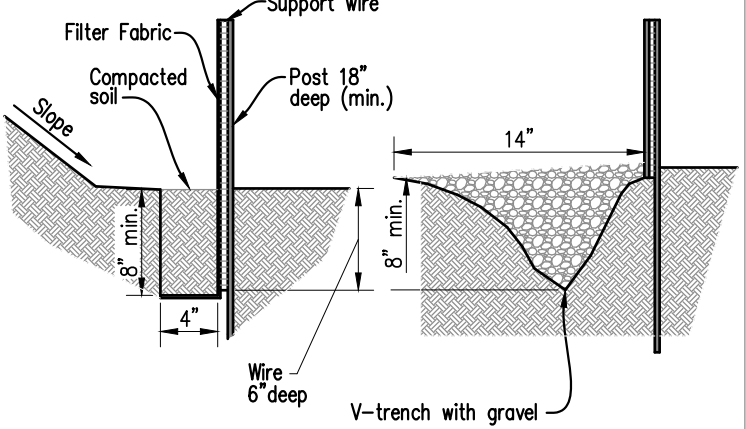
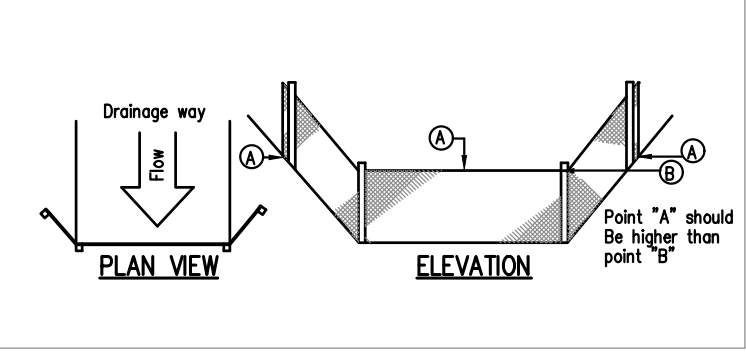


Exhibit 3.74-E. Detailed example of silt fence installation.



- MAINTENANCE**
- Inspect the silt fence periodically and after each storm event.
  - If fence fabric tears, starts to decompose or no longer becomes ineffective, replace the affected portion immediately.
  - Remove deposited sediment when it reaches half the height of the fence at its lowest point or is causing the fabric to bulge.
  - Take care to avoid undermining the fence during clean out.
  - After the contributing area has been stabilized, remove the fence and sediment deposits, bring the disturbed area to grade, and stabilize.

revisions:

|                                |                   |          |                      |
|--------------------------------|-------------------|----------|----------------------|
| ARCHITECTURE                   | CIVIL ENGINEERING | PLANNING | bloomington, indiana |
| BYNUM FANYO & ASSOCIATES, INC. |                   |          | (812) 332-8030       |
| 528 north walnut street        |                   |          |                      |
| (812) 332-8030                 |                   |          |                      |



certified by *gm*

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

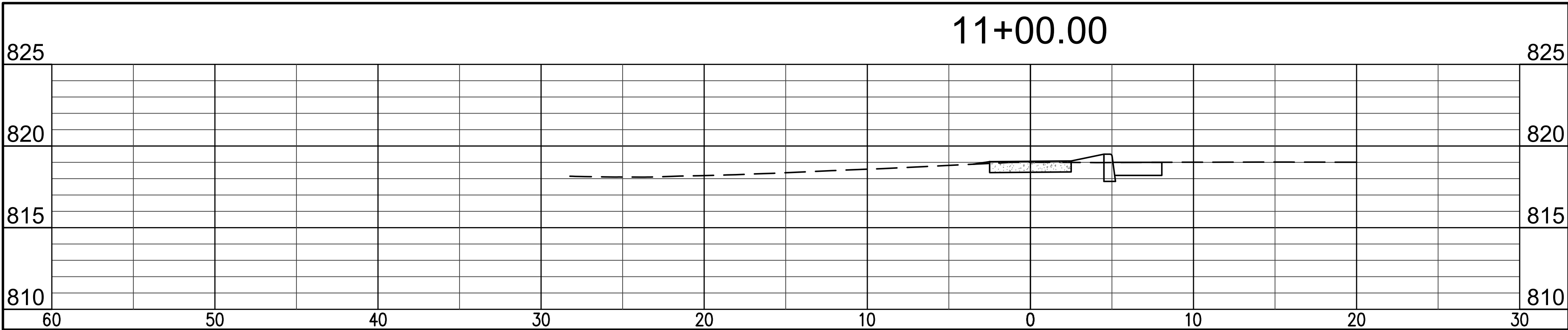
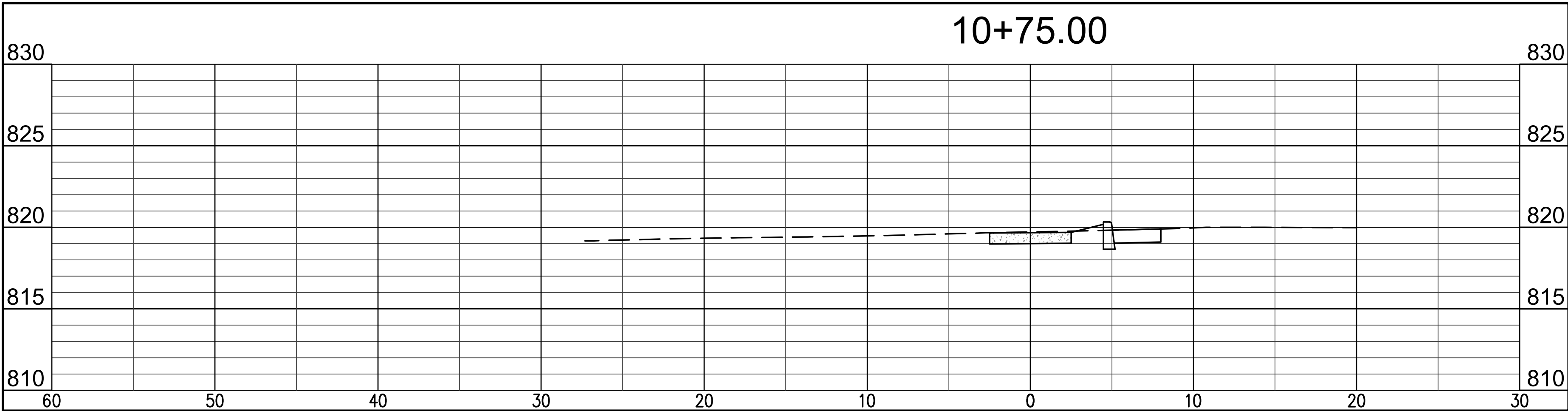
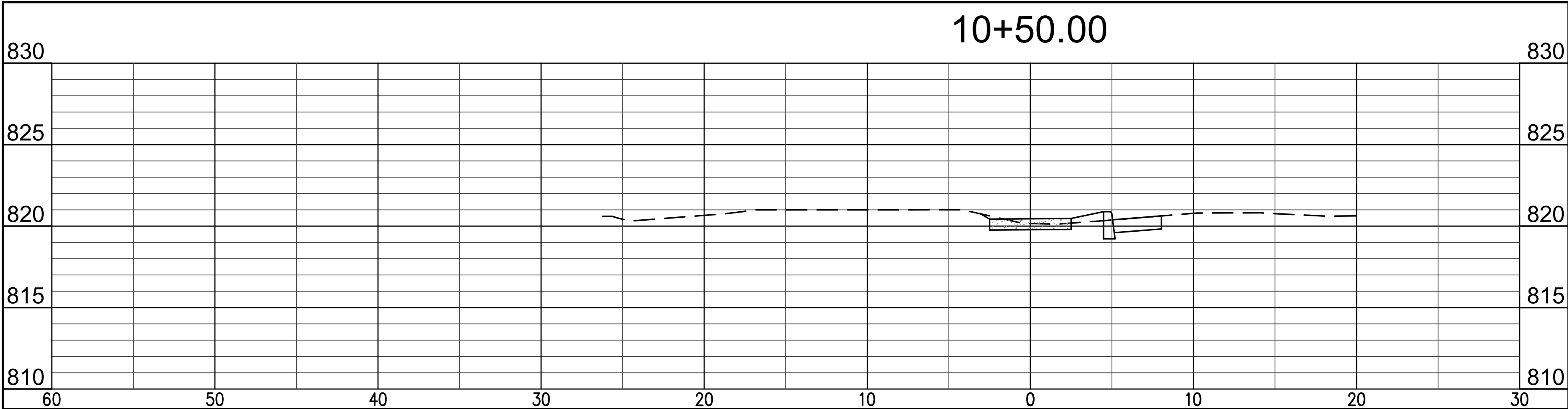
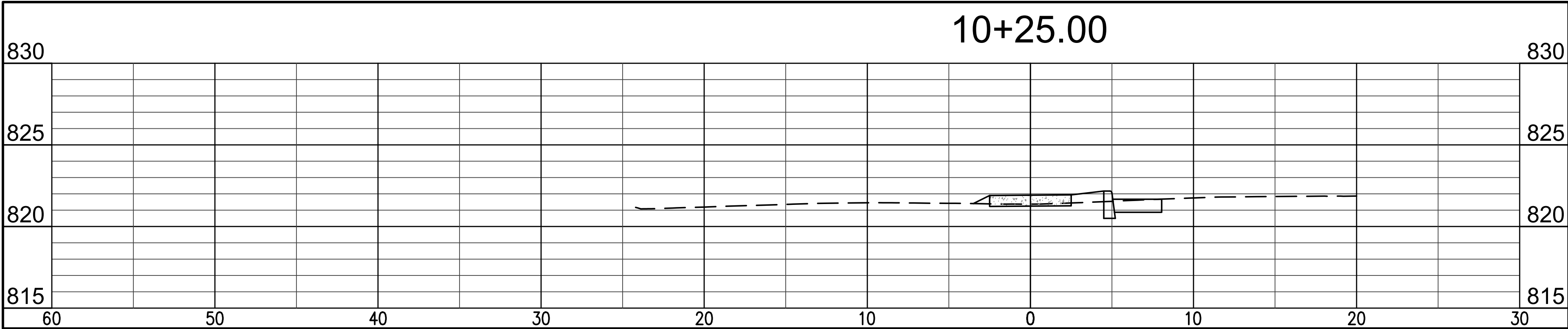
title: EROSION CONTROL DETAILS

designed by: RLC  
drawn by: RLC  
checked by: JSF  
sheet no.: C401  
project no.: 401940

NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.





SCALE: 1" = 5 ' HORIZ.  
1" = 5 ' VERT.

NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

BYNUM FANYO & ASSOCIATES, INC.

528 north walnut street  
(812) 332-8030

bloomington, indiana  
(812) 339-2890 (Fax)

JEFFREY S. FANYO  
No. 60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER  
10-29-20

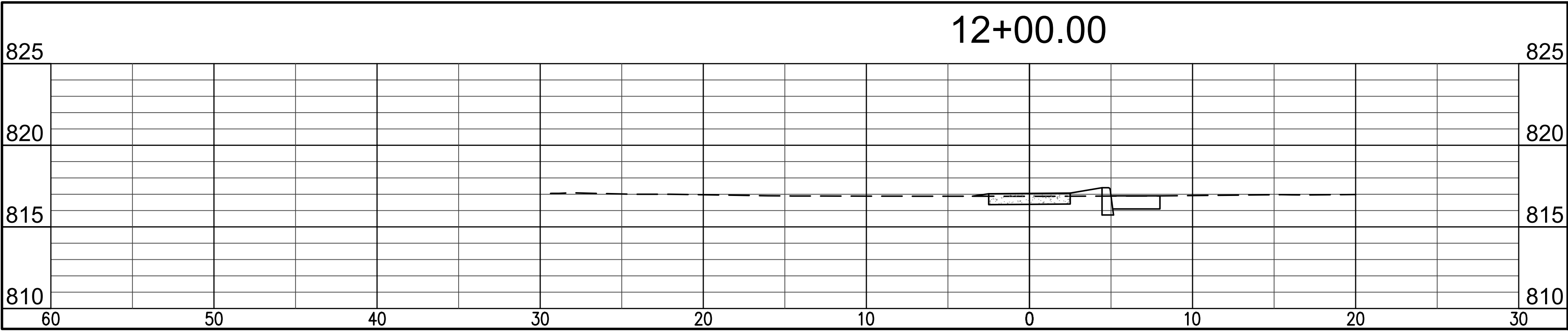
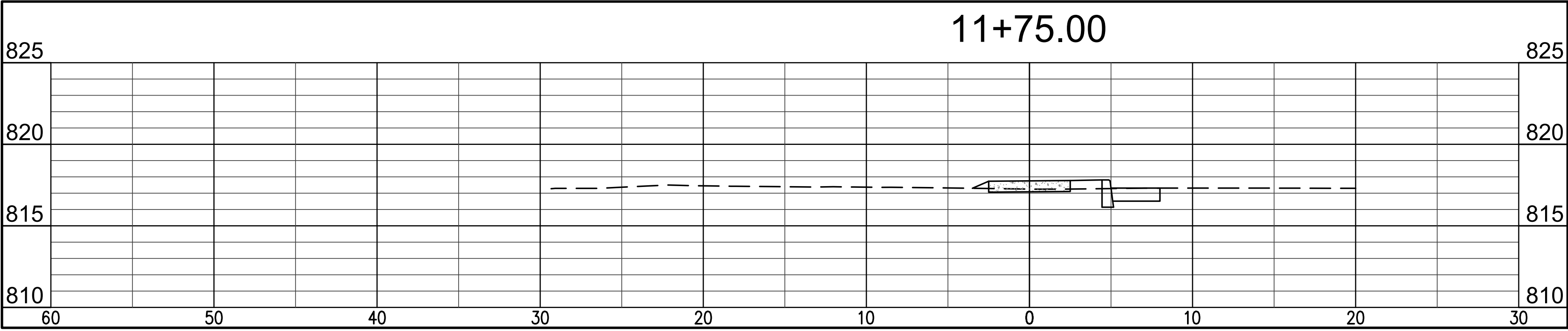
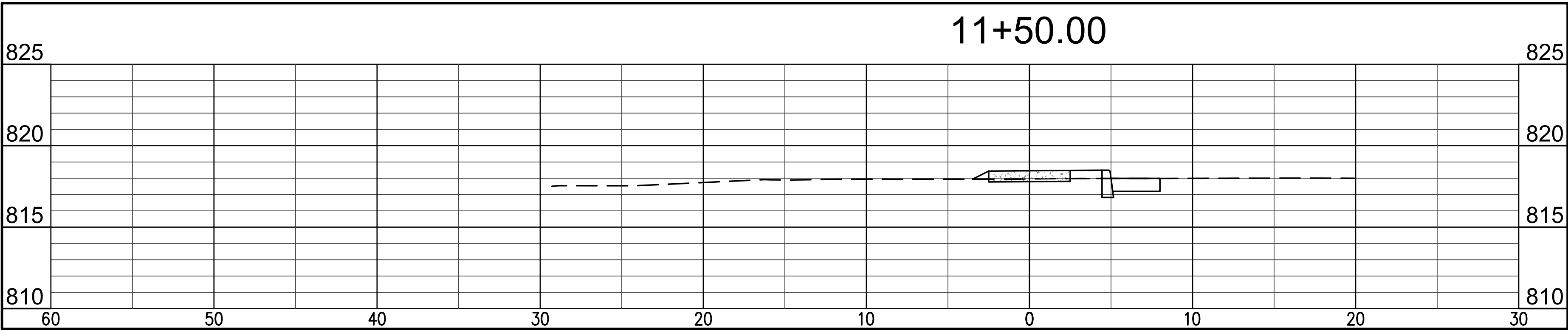
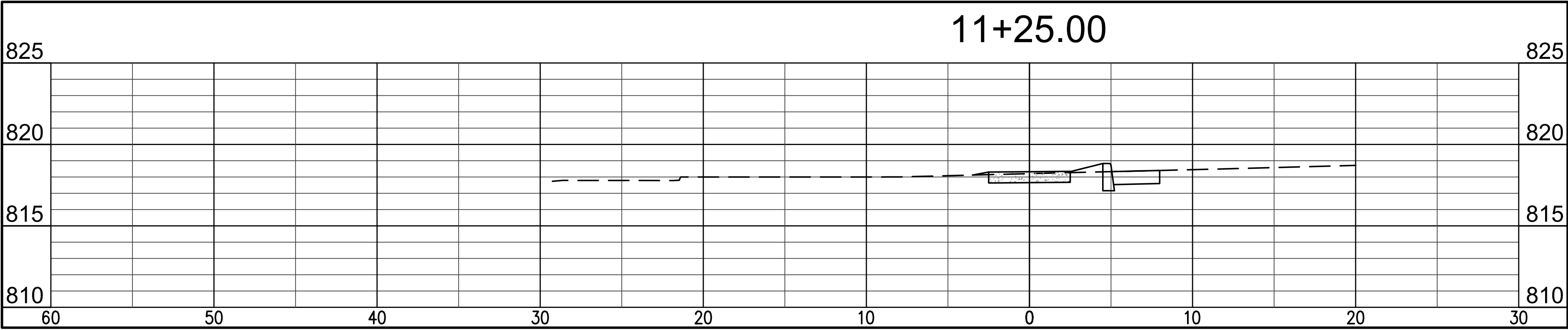
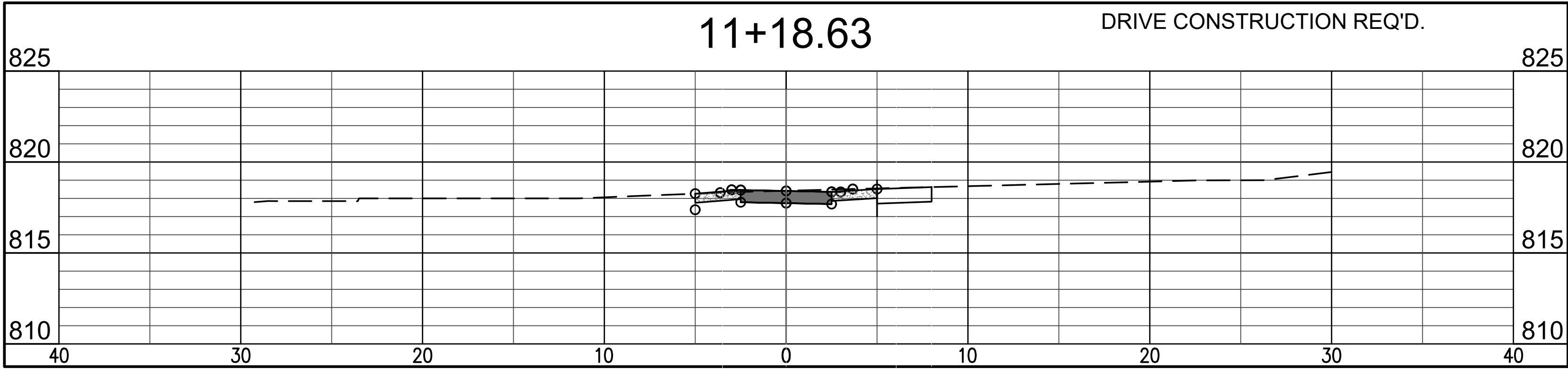
certified by *[Signature]*

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

title: CROSS SECTIONS  
STA 10+00 TO 11+00

designed by: rlc  
drawn by: rlc  
checked by: jsf  
sheet no: C501  
project no.: 401940





SCALE: 1" = 5 ' HORIZ.  
1" = 5 ' VERT.

NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

BYNUM FANYO & ASSOCIATES, INC.

528 north walnut street  
(812) 332-8030

bloomington, indiana  
(812) 339-2990 (Fax)

JEFFREY S. FANYO  
No. 60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

10-29-20

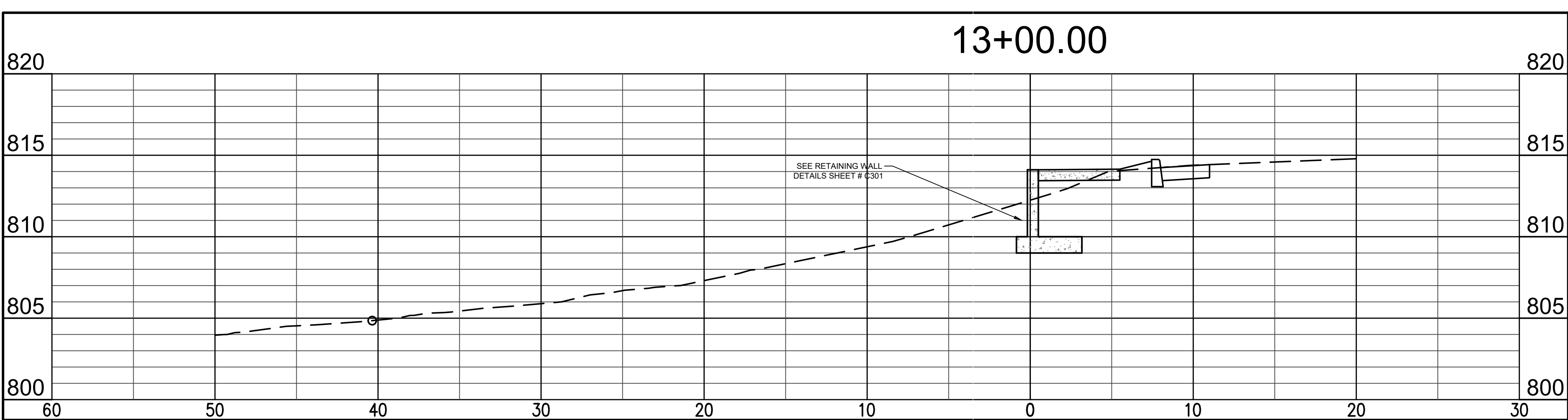
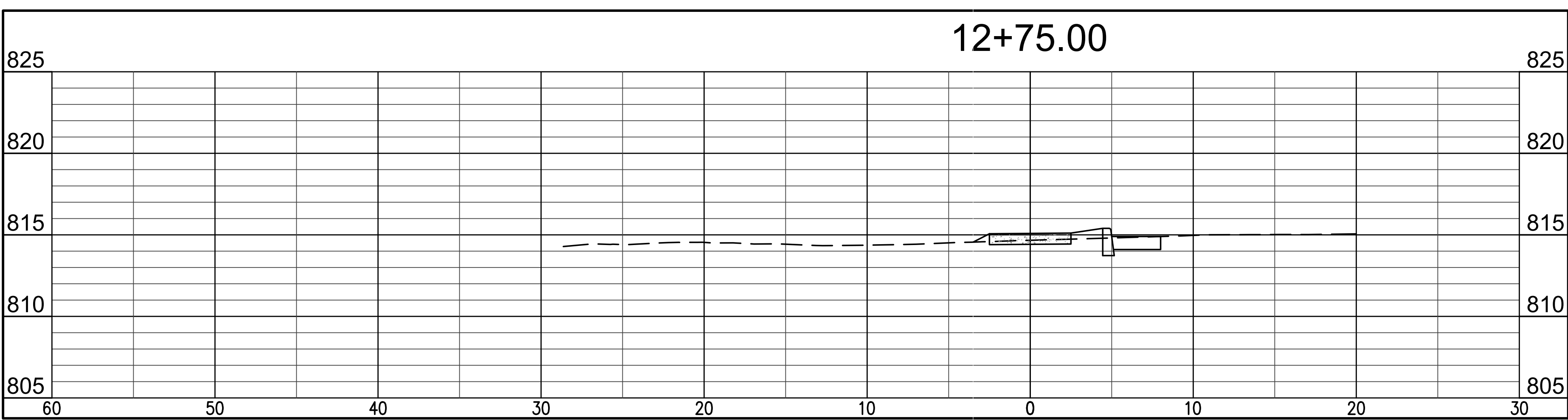
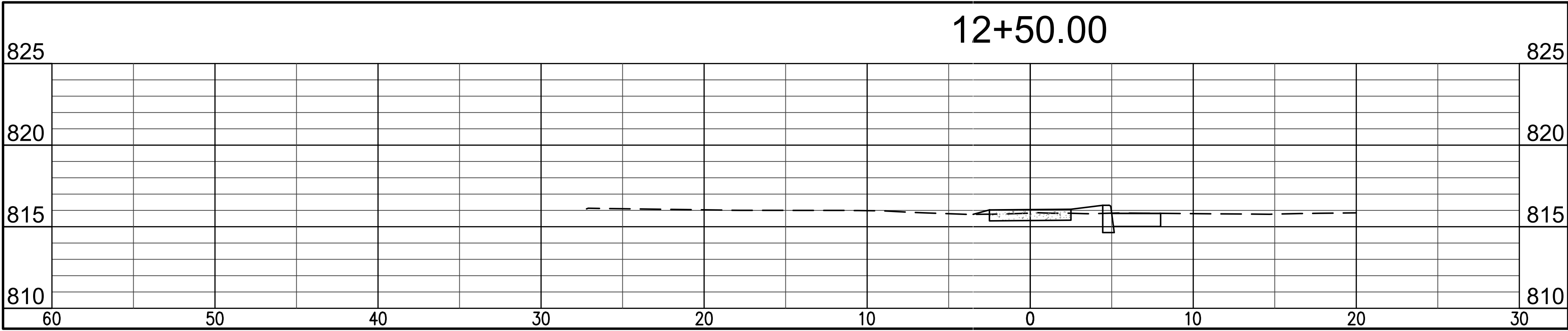
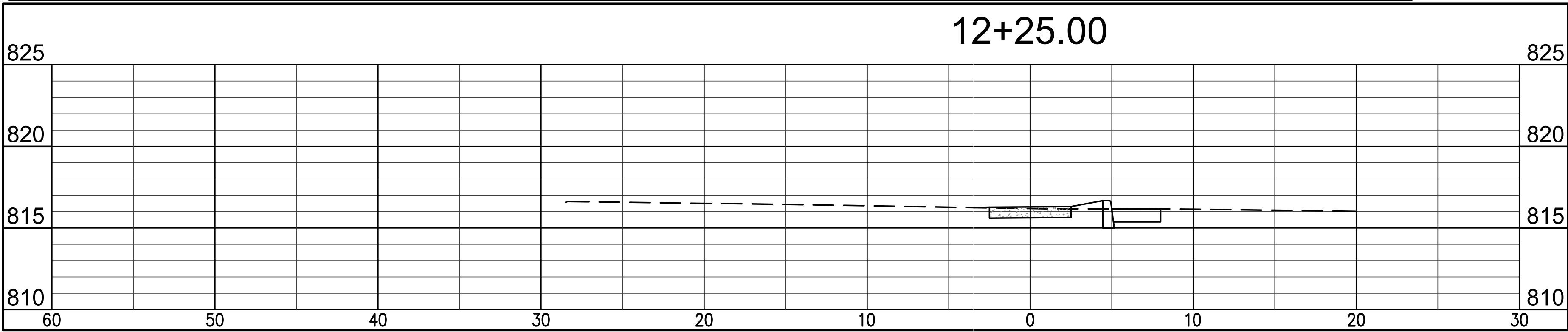
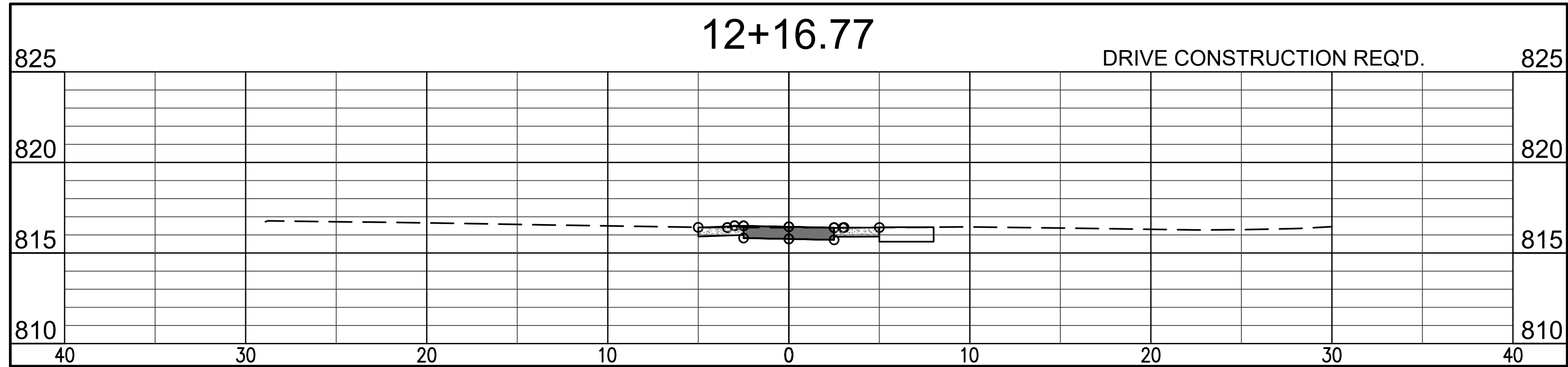
certified by *[Signature]*

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

title: CROSS SECTIONS  
STA 11+18.63 TO  
12+00

designed by: rlc  
drawn by: rlc  
checked by: jsf  
sheet no: C502  
project no.: 401940





SCALE: 1" = 5 ' HORIZ.  
1" = 5 ' VERT.

**NOTE TO CONTRACTOR**

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

BYNUM FANYO & ASSOCIATES, INC.

528 north walnut street  
(812) 332-8030

bloomington, indiana  
(812) 339-2990 (Fax)

JEFFREY S. FANYO  
No. 60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

10-29-20

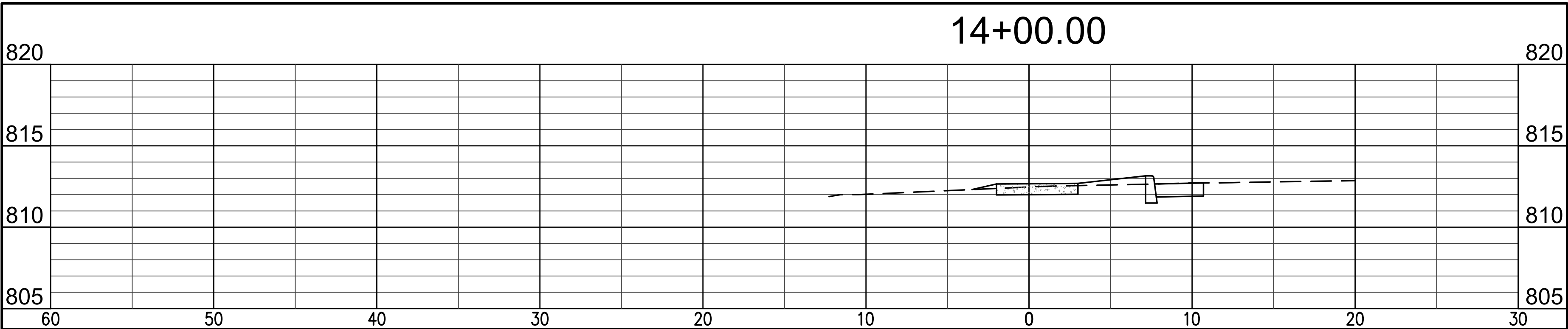
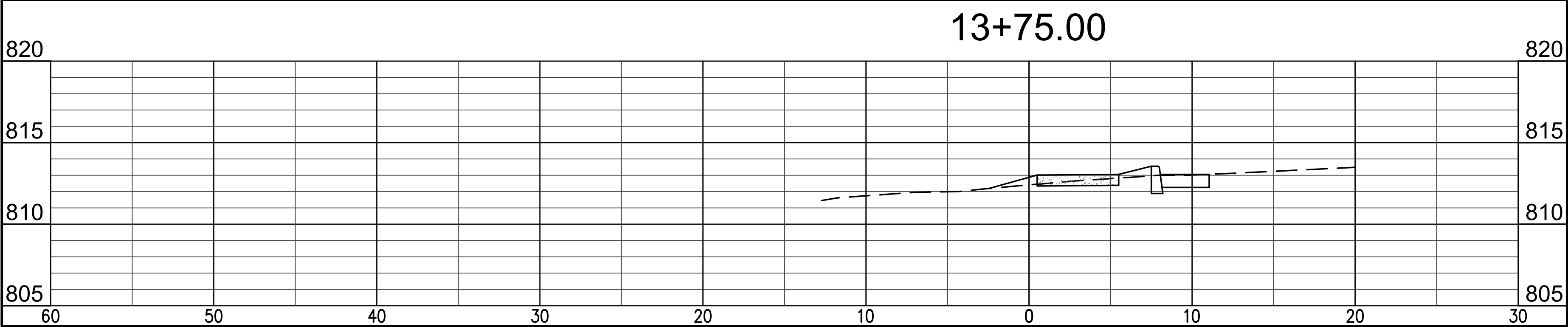
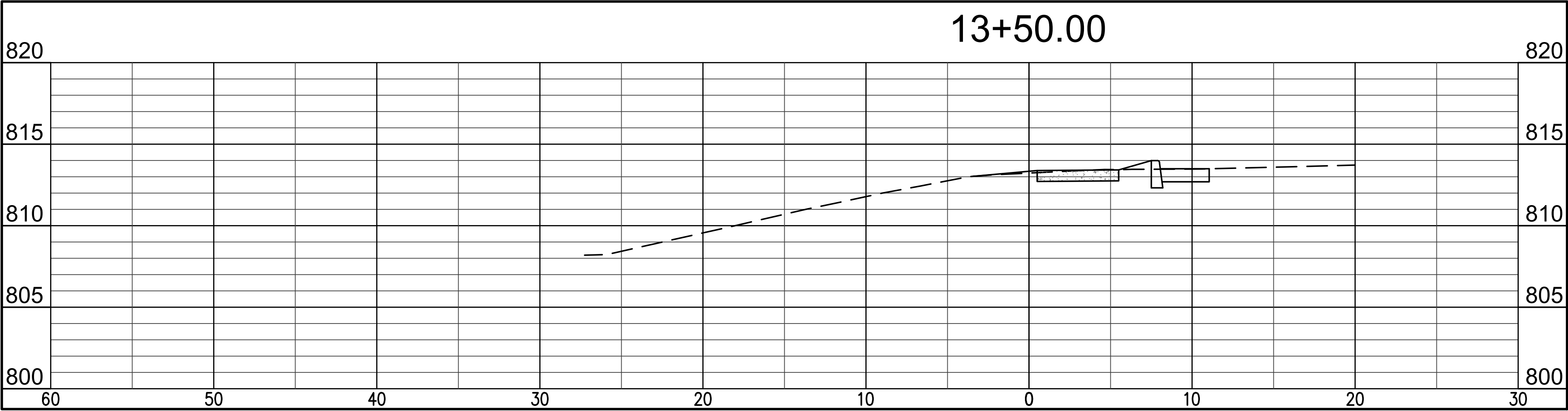
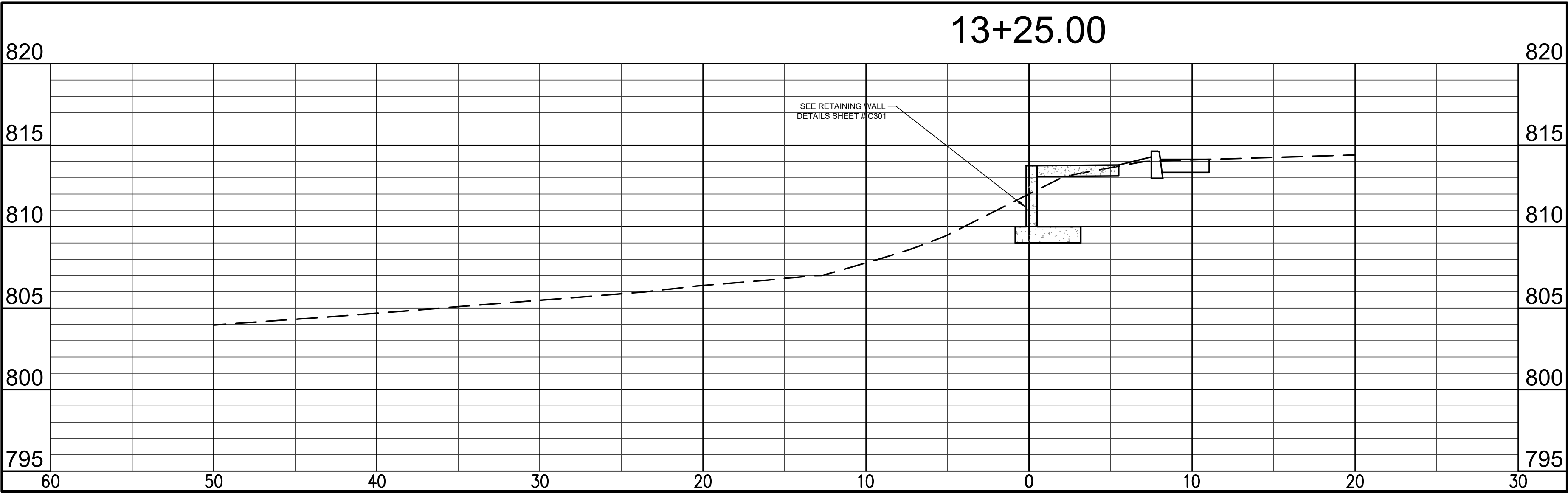
certified by *[Signature]*

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

title: CROSS SECTIONS  
STA 12+16.77 TO  
13+00

designed by: rlc  
drawn by: rlc  
checked by: jsf  
sheet no: C503  
project no.: 401940





SCALE: 1" = 5 ' HORIZ.  
1" = 5 ' VERT.

**NOTE TO CONTRACTOR**

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

BYNUM FANYO & ASSOCIATES, INC.

528 north walnut street  
(812) 332-8030

bloomington, indiana  
(812) 339-2990 (Fax)

JEFFREY S. FANYO  
No. 60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

10-29-20

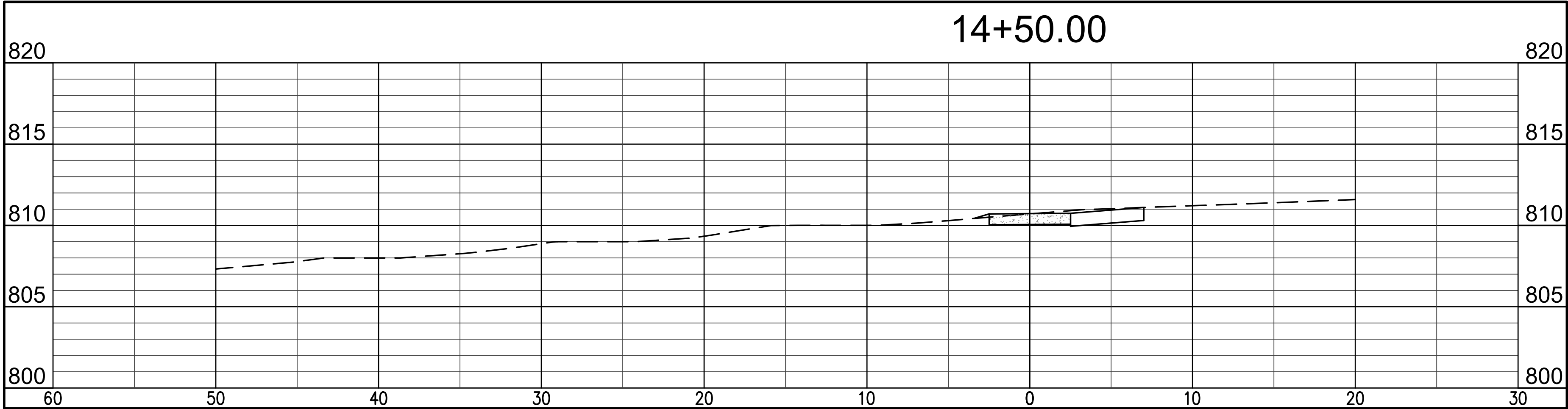
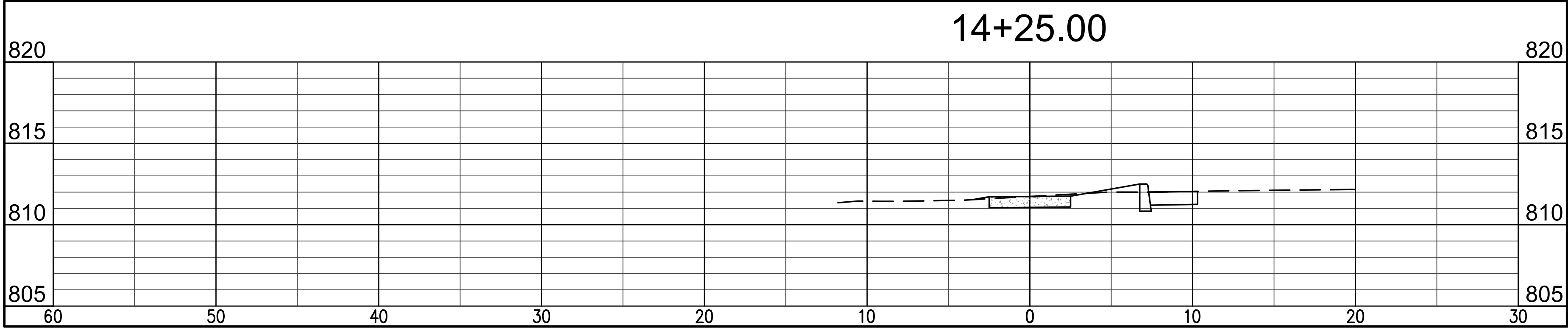
certified by

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

title: CROSS SECTIONS  
STA 13+25 TO 14+00

designed by: rlc  
drawn by: rlc  
checked by: jsf  
sheet no: C504  
project no.: 401940





SCALE: 1" = 5 ' HORIZ.  
1" = 5 ' VERT.

**NOTE TO CONTRACTOR**

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

ARCHITECTURE  
CIVIL ENGINEERING  
PLANNING

BYNUM FANYO & ASSOCIATES, INC.

528 north walnut street  
(812) 332-8030

bloomington, indiana  
(812) 339-2990 (Fax)

JEFFREY S. FANYO  
No. 60018283  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

10-29-20

certified by

PROPOSED  
14TH STREET SIDEWALK PROJECT  
FROM MADISON ST. TO WOODBURN AVE.  
BLOOMINGTON, INDIANA

title: CROSS SECTIONS  
STA 14+25 TO 14+50

designed by: rlc  
drawn by: rlc  
checked by: jsf  
sheet no: C504  
project no.: 401940