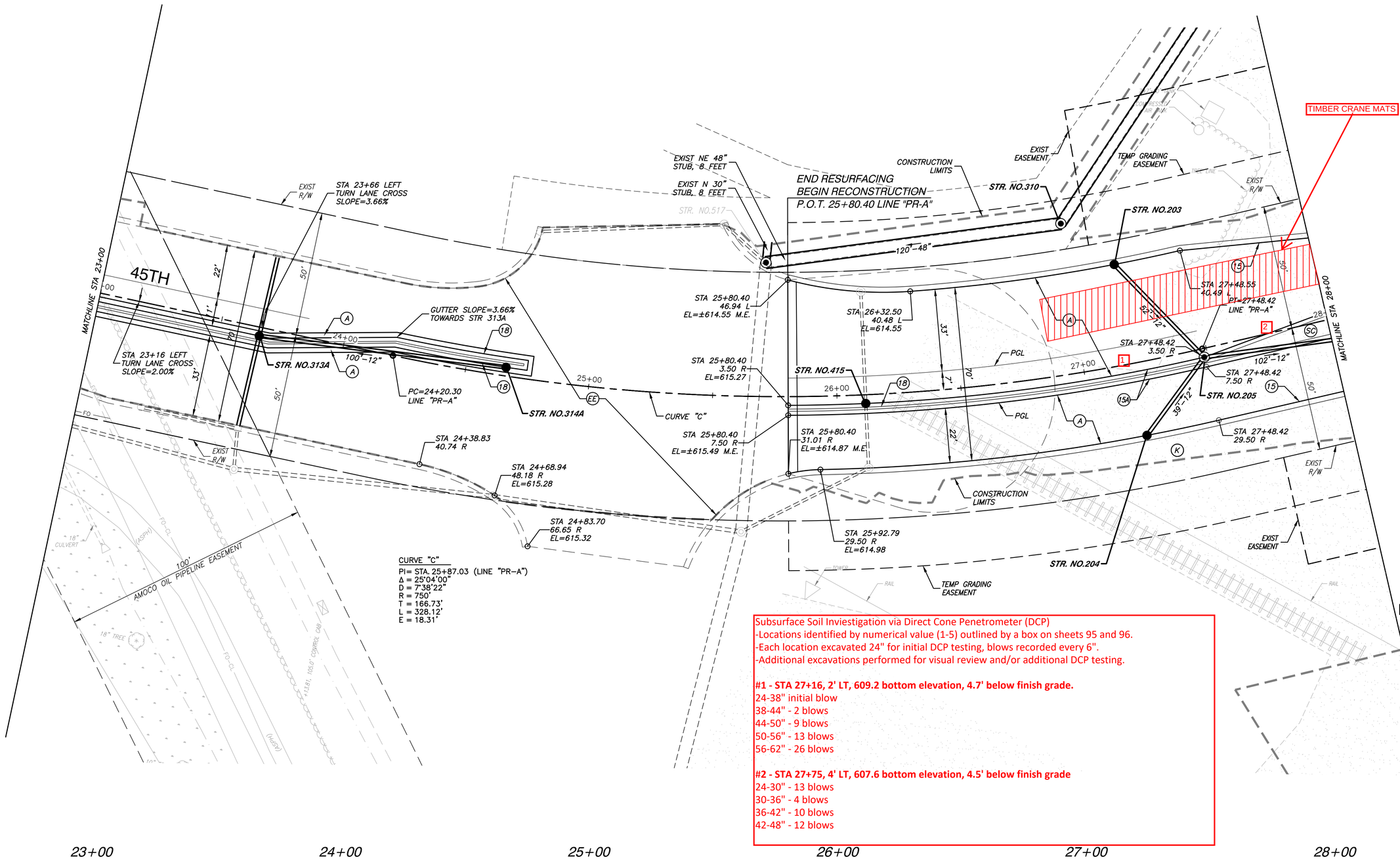
23+00 24+00 25+00 26+00 27+00 28+00

N

SEC 30, T–36–N, R–9–W
NORTH TOWNSHIP
LAKE COUNTY



Subsurface Soil Inviestigation via Direct Cone Penetrometer (DCP)
-Locations identified by numerical value (1-5) outlined by a box on sheets 95 and 96.
-Each location excavated 24" for initial DCP testing, blows recorded every 6".
-Additional excavations performed for visual review and/or additional DCP testing.

#1 - STA 27+16, 2' LT, 609.2 bottom elevation, 4.7' below finish grade.
24-38" initial blow
38-44" - 2 blows
44-50" - 9 blows
50-56" - 13 blows
56-62" - 26 blows

#2 - STA 27+75, 4' LT, 607.6 bottom elevation, 4.5' below finish grade
24-30" - 13 blows
30-36" - 4 blows
36-42" - 10 blows
42-48" - 12 blows

LEGEND

- (A) PROPOSED HMA PAVEMENT (45TH STREET)
  165 lb/yd² QC/QA HMA, 3, 70, SURFACE, 9.5mm ON
  275 lb/yd² QC/QA HMA, 3, 70, INTERMEDIATE, 19mm ON
  660 lb/yd² QC/QA HMA, 3, 64, BASE, 19mm ON
  SUBGRADE TREATMENT, TYPE IC (12 IN COMPACTED AGGREGATE)
- (B) PROPOSED HMA PAVEMENT (CALUMET AVENUE)
  165 lb/yd² QC/QA HMA, 4, 70, SURFACE, 9.5mm ON
  275 lb/yd² QC/QA HMA, 4, 70, INTERMEDIATE, 19mm ON
  660 lb/yd² QC/QA HMA, 4, 64, BASE, 19mm ON
  SUBGRADE TREATMENT, TYPE IC (12 IN COMPACTED AGGREGATE)
- (C) PROPOSED PCCP FOR APPROACHES, 9" ON
  SUBGRADE TREATMENT, TYPE II
- (D) PROPOSED HMA PAVEMENT FOR APPROACHES
  165 lb/yd² HMA FOR APPROACHES TYPE B ON
  275 lb/yd² HMA FOR APPROACHES TYPE B ON
  880 lb/yd² HMA FOR APPROACHES TYPE B ON
  SUBGRADE TREATMENT, TYPE II
- (E) PROPOSED HMA PAVEMENT (ALLEY)
  165 lb/yd² QC/QA HMA, 2, 64, SURFACE, 9.5mm ON
  385 lb/yd² QC/QA HMA, 2, 64, INTERMEDIATE, 19.0mm ON
  5" COMPACTED AGGREGATE, NO. 53 ON
  SUBGRADE TREATMENT, TYPE IV
  (12" #53'S TYPE IB GEOGRID)
- (EE) PROPOSED RESURFACING
  MILLING, ASPHALT, 1 IN
  165 lb/yd² QC/QA HMA, 3, 70, SURFACE, 9.5mm
  HMA WEDGE AND LEVEL, TYPE B, 1 IN±
- (F) PROPOSED SIDEWALK, CONCRETE, 4"
- (G) PCCP, 4 INCH, 6" COMPACTED AGGREGATE NO. 53
- (K) PROPOSED HMA BIKEPATH
  165 lb/yd² QC/QA HMA, 2, 64, SURFACE, 9.5mm ON
  200 lb/yd² QC/QA HMA, 2, 64, INTERMEDIATE, 19mm ON
  6" COMPACTED AGGREGATE, NO. 53, ON
  SUBGRADE TREATMENT, TYPE III (IN PLACE COMPACT)
- (15) CURB & GUTTER, 6" CURB HEIGHT, CONCRETE, MODIFIED 18" GUTTER FLAG
- (15A) CURB & GUTTER, 6" CURB HEIGHT, CONCRETE, MODIFIED 12" GUTTER FLAG
- (15B) CURB INTEGRAL CONCRETE
- (15C) CURB, CONCRETE
- (17) PAVED SIDE DITCH, H MODIFIED
- (18) CENTER CURB, D, CONCRETE MODIFIED
- (24) TOPSOIL, 4", MULCHED SEEDING U WITH EROSION CONTROL BLANKET
- (26) TOPSOIL, 4", SODDING, NURSERY
- (SC) STAMPED CONCRETE SIDEWALK 6" COMPACTED AGGREGATE 53
- EXISTING WETLAND
- LIMITS OF CONSTRUCTION

NOTES:

1. ALL EXISTING TOPOGRAPHY AND R/W DESCRIBED OFF LINE "PR–A". ALL PROPOSED IMPROVEMENTS DESCRIBED OFF LINE "PR–A", TO BE CONSTRUCTED.
2. SEE PLAN & PROFILE SHEETS AND STRUCTURE DATA TABLES FOR DRAINAGE STRUCTURE INFORMATION.

SEC 30, T–36–N, R–9–W
NORTH TOWNSHIP
LAKE COUNTY

23+00 24+00 25+00 26+00 27+00 28+00

BENCH MARK:
SQUARE CUT ON CONC BASE FOR LIGHT POLE, WEST SIDE OF CALUMET AVENUE, 30' NORTH OF WHITE CASTLE BUILDING.
ELEVATION = 619.67

Robinson ENGINEERING
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08315-PLAN-DTLS-01 - C04

J. JOSEPH M. NORDMAN REGISTERED NO. PE 9600384 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Joseph M. Nordman 11/20/18
DESIGN ENGINEER DATE

DESIGNED: JB DRAWN: PS/RG
CHECKED: JMN CHECKED: AG

INDIANA
DEPARTMENT OF TRANSPORTATION

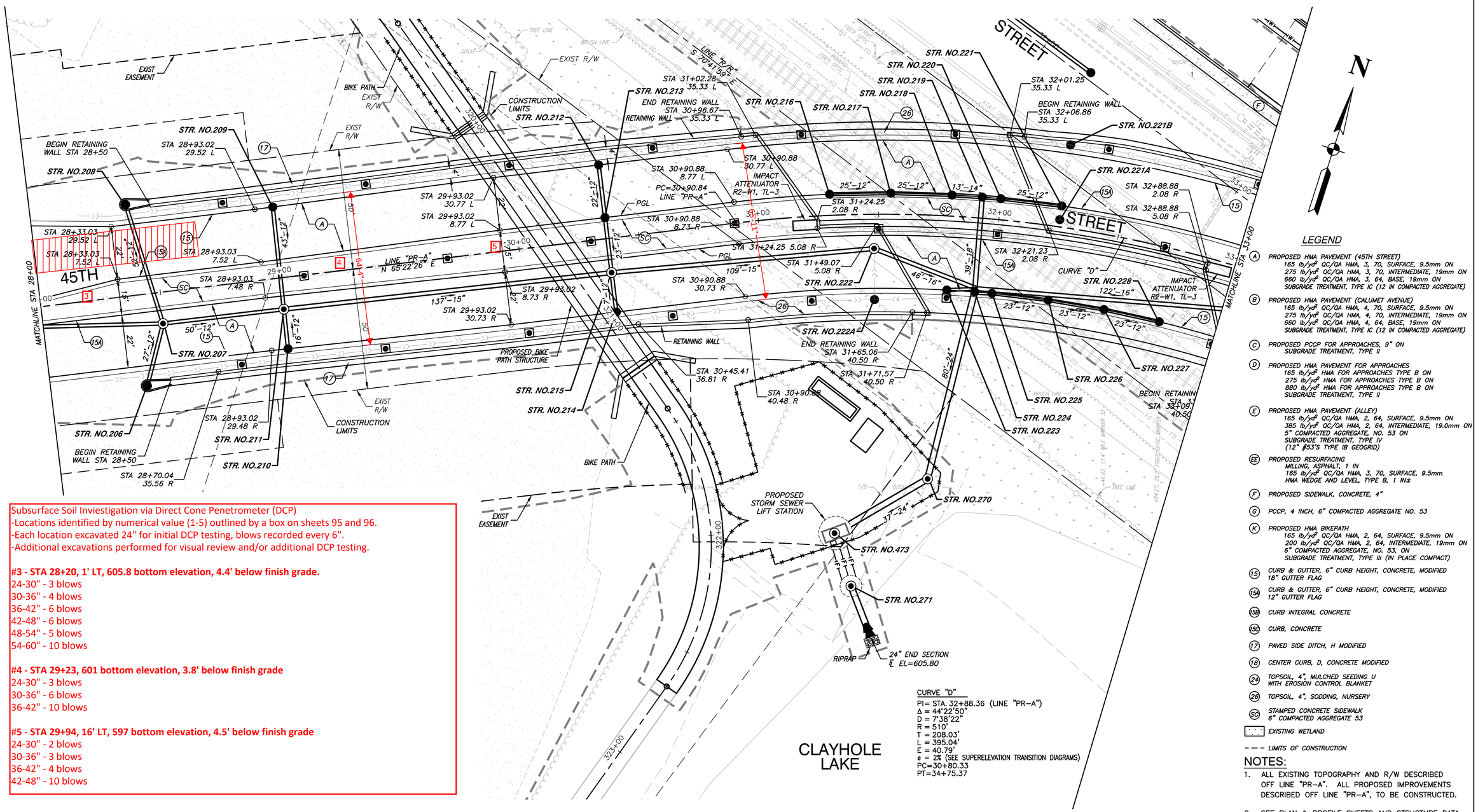
CONSTRUCTION DETAILS
45TH STREET - LINE "PR-A"

HORIZONTAL SCALE	ROAD FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
1"=5'	0710056
SURVEY BOOK	SHEETS
N/A	95 of 360
CONTRACT	PROJECT
B-36229	0710056

LAST SAVED BY: RGONDEK ON 11/27/18
PLOTTED BY: RICHARD GONDEK ON 11/27/18

SEC 30, T-36-N, R-9-W
NORTH TOWNSHIP
LAKE COUNTY

28+00 | 29+00 | 30+00 | 31+00 | 32+00 | 33+00



Subsurface Soil Inviestigation via Direct Cone Penetrometer (DCP)
-Locations identified by numerical value (1-5) outlined by a box on sheets 95 and 96.
-Each location excavated 24" for initial DCP testing, blows recorded every 6".
-Additional excavations performed for visual review and/or additional DCP testing.

#3 - STA 28+20, 1' LT, 605.8 bottom elevation, 4.4' below finish grade.
24-30" - 3 blows
30-36" - 4 blows
36-42" - 6 blows
42-48" - 6 blows
48-54" - 5 blows
54-60" - 10 blows

#4 - STA 29+23, 601 bottom elevation, 3.8' below finish grade
24-30" - 3 blows
30-36" - 6 blows
36-42" - 10 blows

#5 - STA 29+94, 16' LT, 597 bottom elevation, 4.5' below finish grade
24-30" - 2 blows
30-36" - 3 blows
36-42" - 4 blows
42-48" - 10 blows

CURVE "D"
PI= STA. 32+88.36 (LINE "PR-A")
Δ = 44°22'50"
D = 7°38'22"
R = 510'
T = 208.03'
L = 395.04'
E = 40.79'
e = 2% (SEE SUPERELEVATION TRANSITION DIAGRAMS)
PC=30+80.33
PT=34+75.37

LEGEND

- (A) PROPOSED HMA PAVEMENT (45TH STREET)
  165 lb/yd² QC/QA HMA, 3, 70, SURFACE, 9.5mm ON
  275 lb/yd² QC/QA HMA, 3, 70, INTERMEDIATE, 19mm ON
  660 lb/yd² QC/QA HMA, 3, 64, BASE, 19mm ON
  SUBGRADE TREATMENT, TYPE IC (12 IN COMPACTED AGGREGATE)
- (B) PROPOSED HMA PAVEMENT (CALUMET AVENUE)
  165 lb/yd² QC/QA HMA, 4, 70, SURFACE, 9.5mm ON
  275 lb/yd² QC/QA HMA, 4, 70, INTERMEDIATE, 19mm ON
  660 lb/yd² QC/QA HMA, 4, 64, BASE, 19mm ON
  SUBGRADE TREATMENT, TYPE IC (12 IN COMPACTED AGGREGATE)
- (C) PROPOSED PCCP FOR APPROACHES, 9" ON
  SUBGRADE TREATMENT, TYPE II
- (D) PROPOSED HMA PAVEMENT FOR APPROACHES
  165 lb/yd² HMA FOR APPROACHES TYPE B ON
  275 lb/yd² HMA FOR APPROACHES TYPE B ON
  880 lb/yd² HMA FOR APPROACHES TYPE B ON
  SUBGRADE TREATMENT, TYPE II
- (E) PROPOSED HMA PAVEMENT (ALLEY)
  165 lb/yd² QC/QA HMA, 2, 64, SURFACE, 9.5mm ON
  385 lb/yd² QC/QA HMA, 2, 64, INTERMEDIATE, 19.0mm ON
  5" COMPACTED AGGREGATE, NO. 53 ON
  SUBGRADE TREATMENT, TYPE IV
  (12" #53'S TYPE IB GEOGRID)
- (EE) PROPOSED RESURFACING
  MILLING, ASPHALT, 1 IN
  165 lb/yd² QC/QA HMA, 3, 70, SURFACE, 9.5mm
  HMA WEDGE AND LEVEL, TYPE B, 1 IN±
- (F) PROPOSED SIDEWALK, CONCRETE, 4"
- (G) PCCP, 4 INCH, 6" COMPACTED AGGREGATE NO. 53
- (K) PROPOSED HMA BIKEPATH
  165 lb/yd² QC/QA HMA, 2, 64, SURFACE, 9.5mm ON
  200 lb/yd² QC/QA HMA, 2, 64, INTERMEDIATE, 19mm ON
  6" COMPACTED AGGREGATE, NO. 53, ON
  SUBGRADE TREATMENT, TYPE III (IN PLACE COMPACT)
- (15) CURB & GUTTER, 6" CURB HEIGHT, CONCRETE, MODIFIED
  18" GUTTER FLAG
- (15A) CURB & GUTTER, 6" CURB HEIGHT, CONCRETE, MODIFIED
  12" GUTTER FLAG
- (15B) CURB INTEGRAL CONCRETE
- (15C) CURB, CONCRETE
- (17) PAVED SIDE DITCH, H MODIFIED
- (18) CENTER CURB, D, CONCRETE MODIFIED
- (24) TOPSOIL, 4", MULCHED SEEDING U
  WITH EROSION CONTROL BLANKET
- (26) TOPSOIL, 4", SODDING, NURSERY
- (SC) STAMPED CONCRETE SIDEWALK
  6" COMPACTED AGGREGATE 53
- EXISTING WETLAND
- LIMITS OF CONSTRUCTION

NOTES:

1. ALL EXISTING TOPOGRAPHY AND R/W DESCRIBED OFF LINE "PR-A". ALL PROPOSED IMPROVEMENTS DESCRIBED OFF LINE "PR-A", TO BE CONSTRUCTED.
2. SEE PLAN & PROFILE SHEETS AND STRUCTURE DATA TABLES FOR DRAINAGE STRUCTURE INFORMATION.

SEC 30, T-36-N, R-9-W
NORTH TOWNSHIP
LAKE COUNTY

28+00 | 29+00 | 30+00 | 31+00 | 32+00 | 33+00

BENCH MARK:
SQUARE CUT IN REAR SERVICE WALK OF RESIDENCE 1044 CAMELLIA DRIVE, ±62' SOUTH OF SOUTH FACE OF BUILDING.
ELEVATION = 616.47

Robinson ENGINEERING
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08315-PLAN-DTLS-01 - C05

JOSEPH M. NORDMAN
REGISTERED NO. PE 9600384
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Joseph M. Nordman 11/20/18
DESIGN ENGINEER DATE

DESIGNED: JB | DRAWN: PS/RG
CHECKED: JMN | CHECKED: AG

INDIANA
DEPARTMENT OF TRANSPORTATION

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45TH STREET - LINE "PR-A"

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1"=20'	N/A
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