

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|------------|----------|--------------------|-----------|
| 342 | 2020-260-1 | COOK | 11 | 1 |
| | | ILLINOIS | CONTRACT NO. 62N29 | |

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED
IN THE VILLAGES OF PALATINE
AND ARLINGTON HEIGHTS

PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 342: IL-53
FROM IL-68 TO LAKE-COOK ROAD
SECTION: 2020-260-1
NOISE WALL REPAIRS
COOK COUNTY

C-91-087-21

RI0E | RI1E

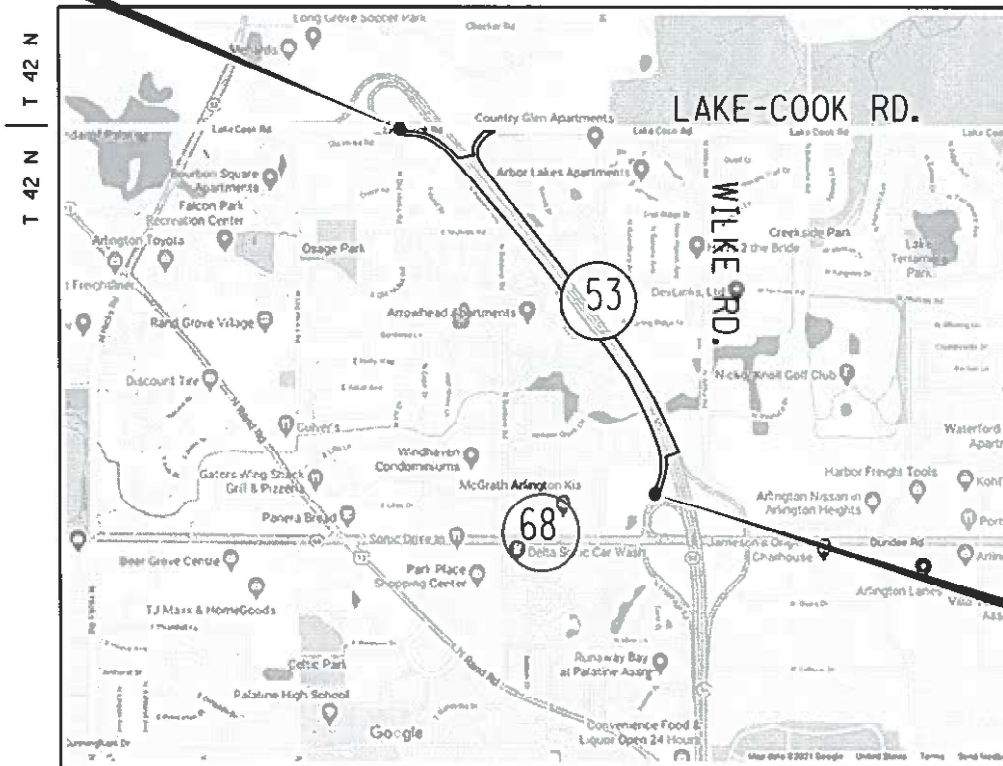
IMPROVEMENT ENDS
STA. 72+00

TRAFFIC DATA:
2019 ADT = 76,400
POSTED SPEED LIMIT = 55 MPH



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

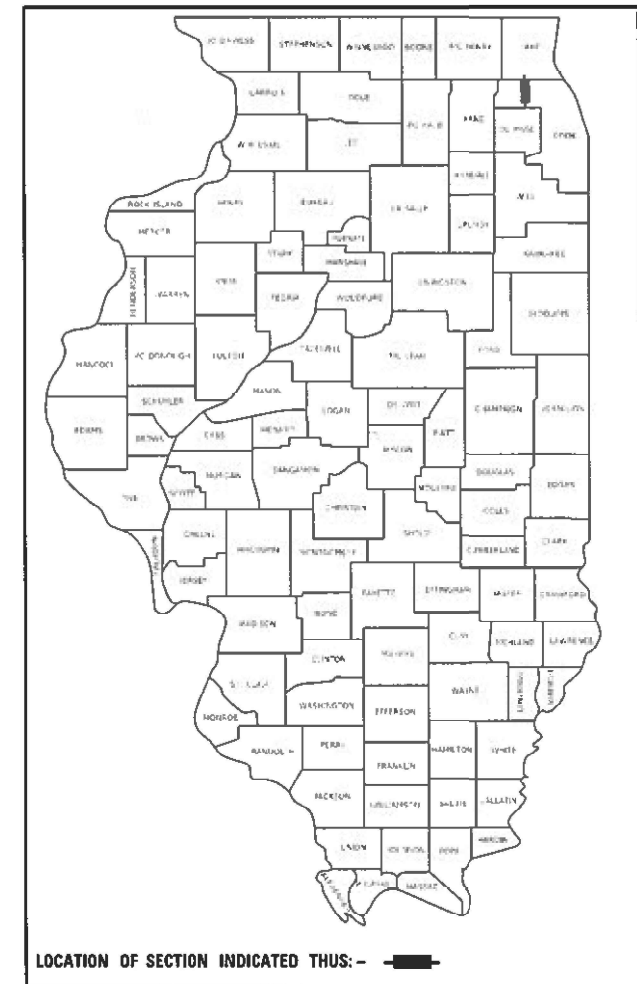
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811



PALATINE TOWNSHIP

IMPROVEMENT BEGINS
STA. 10+00

D-91-071-21



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED MARCH 12 20 21
Jose Rios / CRB
REGIONAL ENGINEER

May 7, 2021 [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 7, 2021 [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PROJECT MANAGER J. ALAIN MIDY (847) 221-3056

GROSS AND NET LENGTH OF PROJECT = 6,200 FT. = 1.17 MILES

CONTRACT NO. 62N29

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
|-----------|---|
| 1 | COVER SHEET |
| 2 | INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES |
| 3 | SUMMARY OF QUANTITIES |
| 4 | TYPICAL CROSS SECTION |
| 5 - 8 | NOISE ABATEMENT WALL REPAIR DETAILS |
| 9 | TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10) |
| 10 | TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17) |
| 11 | ARTERIAL ROAD INFORMATION SIGN (TC-22) |

STATE STANDARDS

| STANDARD NO. | DESCRIPTION |
|--------------|--|
| 701106-02 | OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY |
| 701901-08 | TRAFFIC CONTROL DEVICES |

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION REQUIRED).
2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGES OF PALATINE AND ARLINGTON HEIGHTS.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS & CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION & ORDERING OF MATERIALS.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
5. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 FOR ARTERIALS OR (847) 705-4157 FOR EXPRESSWAYS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
6. THESE PLANS HAVE BEEN PREPARED FROM FIELD NOTES RECEIVED FROM MAINTENANCE ENGINEERS.
7. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
8. RESIDENT ENGINEER WILL MARK ALL TREES THAT WILL NEED TO BE REMOVED ON SITE.
9. THE "ARTERIAL ROAD INFORMATION SIGN (TC-22)" IS APPLICABLE ONLY TO ARTERIAL ROADS AND SHALL NOT BE APPLIED TO EXPRESSWAYS.

MODEL: Default
 FILE NAME: p:\data\room\dot\illinois.gov\PIWDOT\Documents\DOT_Offices\District_1\Projects\IP1032_18\CADD\DATA\Design\IP1032_18-rtt-engineering.com

| | | |
|-------------------------------|------------|-----------|
| USER NAME = paraynoal | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| PLOT SCALE = 100,0000 ' / in. | CHECKED - | REVISED - |
| PLOT DATE = 4/27/2021 | DATE - | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| IL-53 (IL-68 TO LAKE-COOK RD.) INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES | | | |
|--|-------|----|--------|
| SCALE: | SHEET | OF | SHEETS |
| | STA. | TO | STA. |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|------------|--------|--------------|-----------|
| 342 | 2020-260-I | COOK | 11 | 2 |
| CONTRACT NO. 62N29 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

| SUMMARY OF QUANTITIES | | | TOTAL QUANTITIES | 0044 URBAN 100% STATE | CONSTRUCTION TYPE CODE | | | | |
|-----------------------|--|----------|------------------|-----------------------|------------------------|--|--|--|--|
| CODE NO | ITEM | UNIT | | | | | | | |
| 20100110 | TREE REMOVAL (6 TO 15 UNITS DIAMETER) | UNIT | 20 | 20 | | | | | |
| 20100210 | TREE REMOVAL (OVER 15 UNITS DIAMETER) | UNIT | 8 | 8 | | | | | |
| 20101300 | TREE PRUNING (1 TO 10 INCH DIAMETER) | EACH | 4 | 4 | | | | | |
| 20101350 | TREE PRUNING (OVER 10 INCH DIAMETER) | EACH | 4 | 4 | | | | | |
| 20700220 | POROUS GRANULAR EMBANKMENT | CU YD | 16 | 16 | | | | | |
| 21101625 | TOPSOIL FURNISH AND PLACE, 6" | SQ YD | 20 | 20 | | | | | |
| 25000312 | SEEDING, CLASS 4A | ACRE | 0.004 | 0.004 | | | | | |
| 25000210 | SEEDING, CLASS 2A | ACRE | 0.004 | 0.004 | | | | | |
| 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 0.2 | 0.2 | | | | | |
| 25000500 | PHOSPHORUS FERTILIZER NUTRIENT | POUND | 0.2 | 0.2 | | | | | |
| 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 0.2 | 0.2 | | | | | |
| 25100630 | EROSION CONTROL BLANKET | SQ YD | 20 | 20 | | | | | |
| 25200200 | SUPPLEMENTAL WATERING | UNIT | 0.2 | 0.2 | | | | | |
| 50700105 | TREATED TIMBER | F. B. M. | 9997 | 9997 | | | | | |
| 50700305 | HARDWARE | POUND | 584 | 584 | | | | | |
| 51201300 | FURNISHING STEEL PILES HP8X36 | FOOT | 2104 | 2104 | | | | | |
| 51202305 | DRIVING PILES | FOOT | 938 | 938 | | | | | |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 6 | 6 | | | | | |
| 67100100 | MOBILIZATION | L SUM | 1 | 1 | | | | | |

| SUMMARY OF QUANTITIES | | | | TOTAL QUANTITIES | 0044 URBAN 100% STATE | CONSTRUCTION TYPE CODE | | | | |
|-----------------------|--|-------|------|------------------|-----------------------|------------------------|--|--|--|--|
| CODE NO | ITEM | UNIT | | | | | | | | |
| X7011015 | TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) | L SUM | 1 | 1 | | | | | | |
| Z0030850 | TEMPORARY INFORMATION SIGNING | SO FT | 51.4 | 51.4 | | | | | | |
| Z0064800 | SELECTIVE CLEARING | UNIT | 7 | 7 | | | | | | |

| | | | |
|--|-----------------------|------------|-----------|
| FILE NAME = | USER NAME = paraynool | DESIGNED - | REVISED - |
| pw:\planroom\dtd\illinois\gov\FW1001\Documents\VDOT Offices\District 1\Projects\P103218\CADD\Design\P103218-01.dwg | | DRAWN - | REVISED - |
| | | CHECKED - | REVISED - |
| | | DATE - | REVISED - |
| | | | |

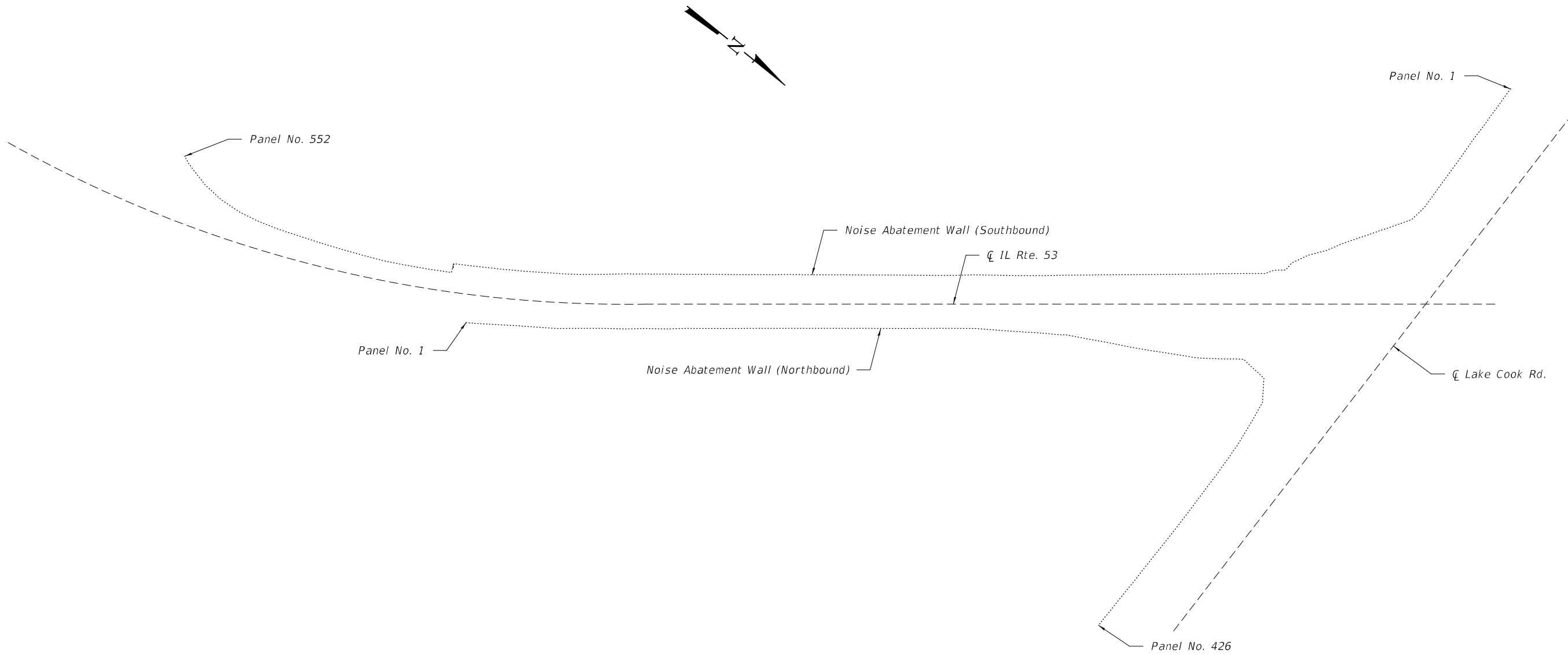
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL-53 (IL-68 TO LAKE-COOK RD.)
SUMMARY OF QUANTITIES**

| | | | | |
|---|------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 342 | 2020-260-1 | COOK | 11 | 3 |
| CONTRACT NO. 62N29 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

REV-SEP

SCALE: SHEET NO. OF SHEETS STA. TO STA.



PLAN

GENERAL NOTES

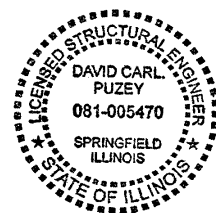
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
All timber shall be treated.

SCOPE OF WORK

Remove deteriorated wooden posts and replace with HP piles (for locations see sheet 4 of 5).
Remove and replace damaged or missing wooden plank panels (for locations see sheet 4 of 5).

TOTAL BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|------------------------------|--------|----------|
| Furnishing Steel Pile HP8x36 | Foot | 2104 |
| Driving Piles | Foot | 938 |
| Treated Timber | F.B.M. | 9997 |
| Hardware | Pound | 584 |



EXPIRES 11-30-2022

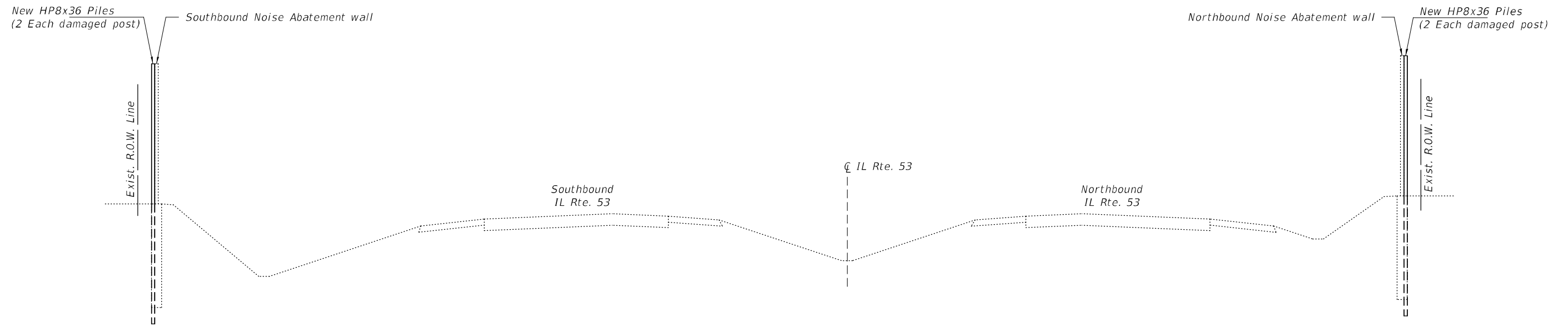
| | | |
|------------------------------|------------------------------------|--------------------|
| DESIGNED - Victor H. Veliz | EXAMINED - <i>Ting A. Bost</i> | DATE - MAY 4, 2021 |
| CHECKED - Adrian T. Halloway | ENGINEER OF STRUCTURAL SERVICES | |
| DRAWN - daburdell | PASSED - <i>Sh. Carl Perry</i> | REVISED - |
| CHECKED - VHV ATH | ENGINEER OF BRIDGES AND STRUCTURES | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL DETAILS
IL RTE 53 NOISE ABATEMENT WALL**

SHEET NO. 1 OF 5 SHEETS

| | | | | |
|-----------|------------|----------|--------------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 2020-260-1 | COOK | 11 | 4 |
| | | | CONTRACT NO. 62N29 | |
| | | ILLINOIS | FED. AID PROJECT | |



TYPICAL CROSS SECTION
(Looking North)



TYPICAL WALL POST AND PANEL DAMAGE
(Looking from residential side)

| | | |
|-------------------|--|--------------------|
| DESIGNED - VHV | EXAMINED | DATE - MAY 4, 2021 |
| CHECKED - ATH | <i>Timothy A. Daburde</i> ENGINEER OF STRUCTURAL SERVICES | REVISED - |
| DRAWN - daburdell | PASSED | REVISED - |
| CHECKED - VHV ATH | <i>Carl R. Meyer</i> ENGINEER OF BRIDGES AND STRUCTURES | |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TYPICAL CROSS SECTION
IL RTE 53 NOISE ABATEMENT WALL**

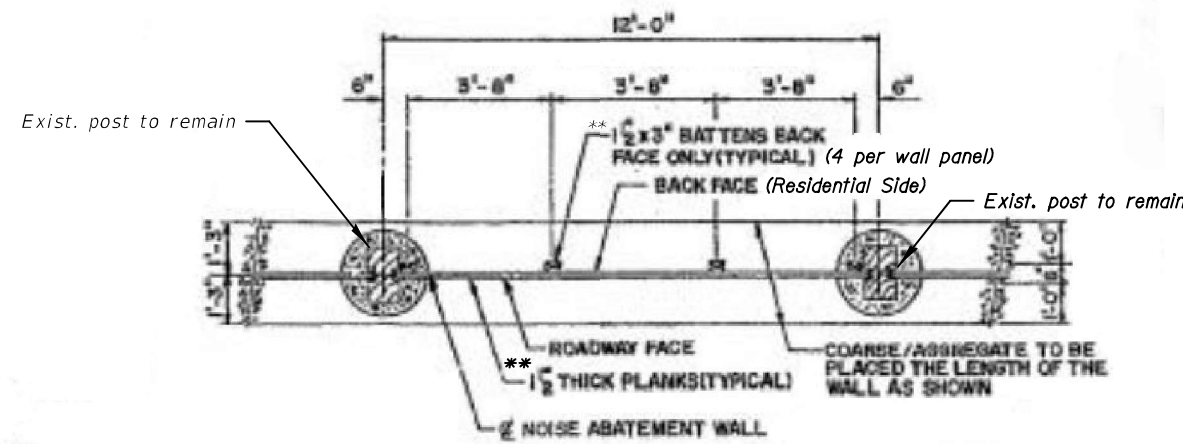
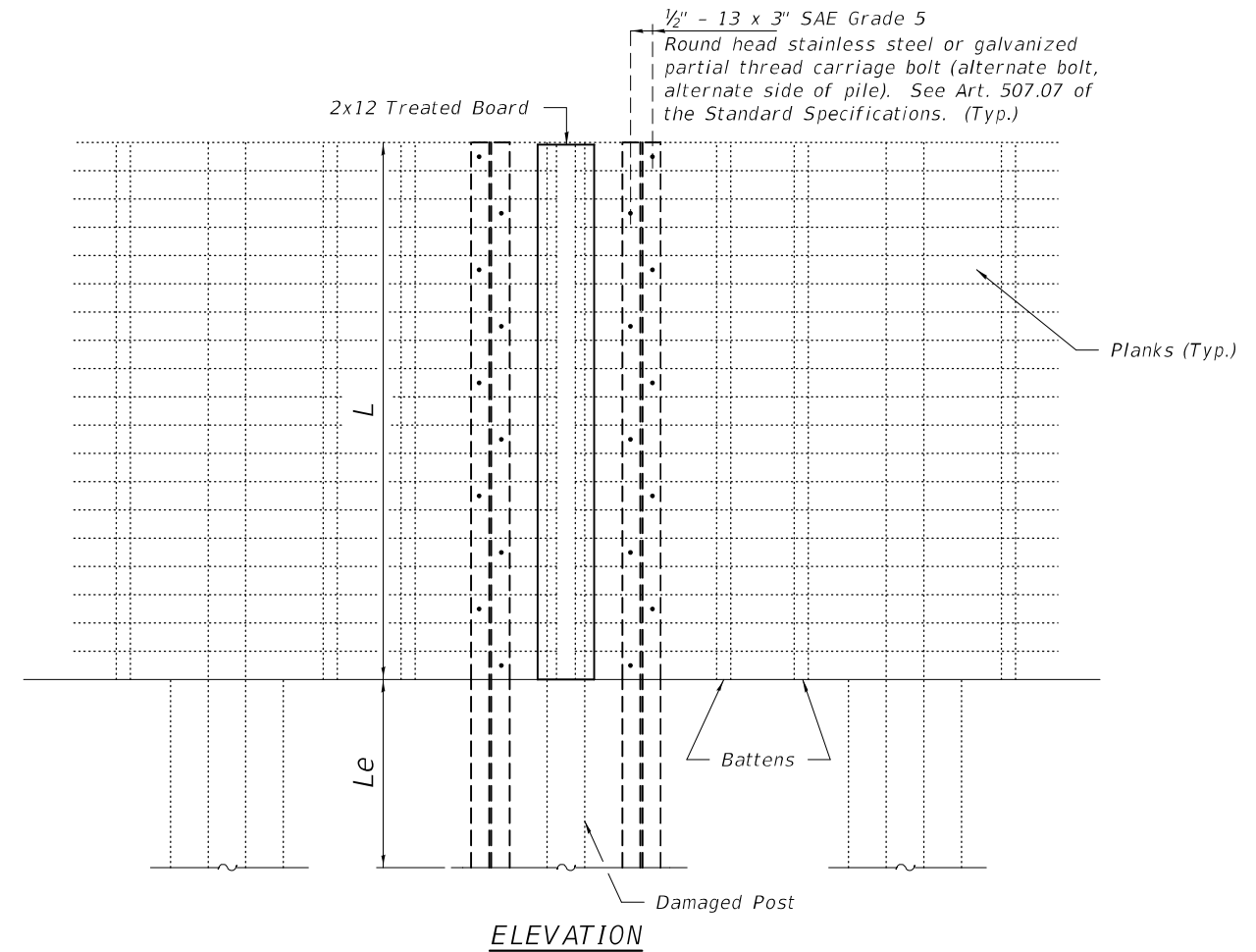
SHEET NO. 2 OF 5 SHEETS

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|------------|--------|--------------------|-----------|
| | 2020-260-1 | COOK | 11 | 5 |
| ILLINOIS | | | CONTRACT NO. 62N29 | |
| ILLINOIS FED. AID PROJECT | | | | |

MINIMUM HP8x36 PILE EMBEDMENT

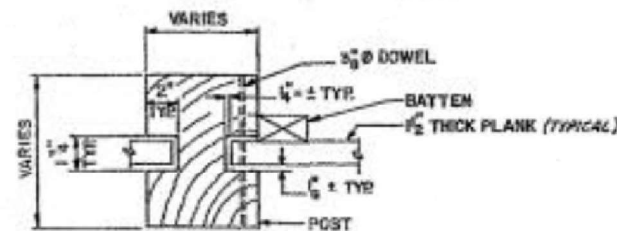
| exposed wall height (ft) | timber post spacing (ft) | | | | |
|--------------------------|--------------------------|------|-----|-----|-----|
| | 12 | 10 | 8 | 6 | 4 |
| 20 | 11.1 | 10.7 | 9.9 | 9.1 | 7.9 |
| 19 | 10.7 | 10.3 | 9.5 | 8.7 | 7.9 |
| 18 | 10.7 | 9.9 | 9.5 | 8.7 | 7.9 |
| 17 | 10.3 | 9.9 | 9.1 | 8.3 | 7.5 |
| 16 | 9.9 | 9.5 | 8.7 | 8.3 | 7.5 |
| 15 | 9.9 | 9.1 | 8.7 | 7.9 | 7.1 |
| 14 | 9.5 | 9.1 | 8.3 | 7.9 | 7.1 |
| 13 | 9.1 | 8.7 | 8.3 | 7.5 | 6.7 |
| 12 | 8.7 | 8.3 | 7.9 | 7.5 | 6.7 |
| 11 | 8.7 | 7.9 | 7.5 | 7.1 | 6.3 |
| 10 | 8.3 | 7.9 | 7.5 | 6.7 | 6.3 |
| 9 | 7.9 | 7.5 | 7.1 | 6.7 | 5.9 |
| 8 | 7.5 | 7.1 | 6.7 | 6.3 | 5.9 |
| 7 | 7.1 | 6.7 | 6.7 | 5.9 | 5.5 |
| 6 | 6.7 | 6.7 | 6.3 | 5.9 | 5.5 |
| 5 | 6.3 | 6.3 | 5.9 | 5.5 | 3 |
| 4 | 5.9 | 5.9 | 5.5 | 5.5 | 3 |
| 3 | 5.5 | 5.5 | 3 | 3 | 3 |

Pile embedments for different wall height and wall panel length.
Based on available boring information.
Assumed wind lateral load = 30 lbs/sq. ft.

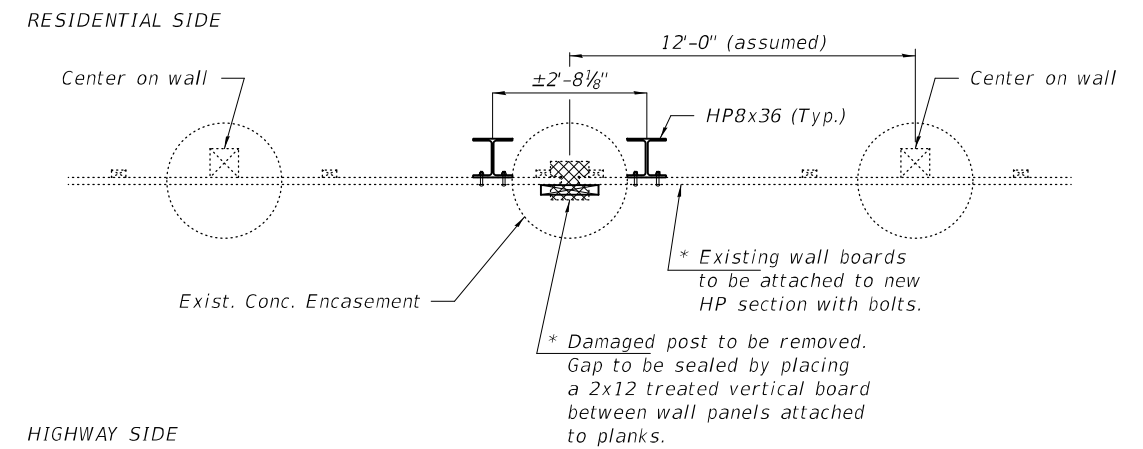


PLAN PANEL REPLACEMENT DETAIL

** Thickness of batten and planks are net dimensions not nominal ones.



STANDARD POST CONNECTION DETAIL



PLAN POST RETROFIT

* Cost of labor required to re-attach existing panels to new HP pile sections and to attach vertical 2 x 12 board is included in the the cost of Furnishing Steel Piles HP 8 x 36.

Notes:
For L and Le dimensions see sheets 4 of 5.
Piles to be driven to the embedment shown on sheet 4 of 5.
For panel replacement quantities and locations, see sheet 4 of 5.
For location of post to be replaced with HP8x36 piles, see sheet 4 of 5.

| | | |
|--------------------------|--|--------------------|
| DESIGNED - VHV | EXAMINED - <i>Timothy A. Daburdell</i> | DATE - MAY 4, 2021 |
| CHECKED - ATH | ENGINEER OF STRUCTURAL SERVICES | |
| DRAWN - <i>daburdell</i> | PASSED - <i>Carl R. Meyer</i> | REVISED - |
| CHECKED - VHV ATH | ENGINEER OF BRIDGES AND STRUCTURES | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REPAIR DETAILS
IL RTE 53 NOISE ABATEMENT WALL**

SHEET NO. 3 OF 5 SHEETS

| | | | | |
|---------------------------|------------|--------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 2020-260-1 | COOK | 11 | 6 |
| CONTRACT NO. 62N29 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

NOISE ABATEMENT WALL PANEL REPLACEMENT (NORTHBOUND)

| Panel No. | Height of Wall (ft) | Width of Pannel (ft) | Damaged Height (ft) | Wooden Batten, Furnish and Install (LF) | Wooden Plank, Furnish and Install (SQFT) | Additional Commnets |
|-----------|---------------------|----------------------|---------------------|---|--|---------------------|
| 233 | 16.3 | 12 | 9.8 | 32.6 | 195.6 | Top |
| 315 | 23.4 | 12 | 23.4 | 46.8 | 280.8 | |
| 316 | 23.4 | 12 | 16.65 | 46.8 | 280.8 | |
| 321 | 24 | 12 | full | 48 | 288 | |
| 322 | 24 | 11.75 | full | 48 | 282 | |
| 331 | 22 | 12 | full | 44 | 264 | |
| 332 | 22 | 12 | full | 44 | 264 | |
| 353 | 12 | 20.7 | 5.75 | 24 | 248.4 | Bottom |
| 369 | 22.4 | 12 | 6.75 | 44.8 | 268.8 | Bottom |

NOISE ABATEMENT WALL PANEL REPLACEMENT (SOUTHBOUND)

| Panel No. | Height of Wall (ft) | Width of Pannel (ft) | Damaged Height (ft) | Wooden Batten, Furnish and Install (LF) | Wooden Plank, Furnish and Install (SQFT) | Additional Commnets |
|-----------|---------------------|----------------------|---------------------|---|--|---------------------|
| 44 | 16.3 | 12 | full | 32.6 | 189.6 | |
| 45 | 16.8 | 12 | full | 33.6 | 195.6 | |
| 46 | 17.3 | 12 | full | 34.6 | 201.6 | |
| 129 | 12.7 | 12 | full | 25.4 | 146.4 | |
| 130 | 11.9 | 12 | full | 23.8 | 136.8 | |
| 131 | 11.6 | 12 | full | 23.2 | 133.2 | |
| 132 | 11.3 | 12 | full | 22.6 | 129.6 | |
| 133 | 11.1 | 3.5 | full | 22.2 | 37.1 | |
| 176 | 14.6 | 12 | full | 29.2 | 169.2 | |
| 186 | 16 | 12 | full | 32 | 186.0 | |
| 187 | 16 | 12 | full | 32 | 186.0 | |
| 188 | 16 | 12 | full | 32 | 186.0 | |
| 189 | 16.1 | 12 | full | 32.2 | 187.2 | |
| 209 | 15.4 | 12 | 8 | 30.8 | 178.8 | Top Pannel |
| 300 | 16.2 | 12 | 8 | 32.4 | 188.4 | Top Pannel |
| 359 | 23 | 12 | full | 46 | 270.0 | |
| 360 | 23.2 | 12 | full | 46.4 | 272.4 | |
| 366 | 23.7 | 12 | full | 47.4 | 278.4 | |
| 367 | 23.6 | 12.75 | full | 47.2 | 294.5 | |
| 368 | 23.5 | 12 | full | 47 | 276.0 | |
| 371 | 23.7 | 12 | full | 47.4 | 278.4 | |
| 372 | 24 | 12 | full | 48 | 282.0 | |

Notes:

- Wooden Batten sections are 1½" x 3" treated timber sections.
- Wooden Plank panel sections are 1½" thick, tongue and grove, treated timber.
- Cost of furnishing and installation of wooden panels and battens is included in the cost FBM (foot board measure) for Treated Timber.
- Wall panel numbers are stamped on face of panel on residential side.

NOISE ABATEMENT WALL POST REPAIR (NORTHBOUND)

| LOCATION (Btwn Wall Panels) | | Wall Height (L) (ft) | * Pile Embedment (Le) (ft) | Pile Length (ft) | 2 x12 Board Length (ft) | 1/2" Carriage bolts (each) |
|-----------------------------|-----|----------------------|----------------------------|------------------|-------------------------|----------------------------|
| 17 | 18 | 13.7 | 9.5 | 23.2 | 13.7 | 14 |
| 21 | 22 | 13.7 | 9.5 | 23.2 | 13.7 | 14 |
| 24 | 25 | 12.95 | 9.1 | 22.05 | 12.95 | 13 |
| 36 | 37 | 12.2 | 8.7 | 20.9 | 12.2 | 12 |
| 122 | 123 | 16.2 | 10 | 26.2 | 16.2 | 16 |
| 233 | 234 | 16.3 | 10 | 26.3 | 16.3 | 16 |
| 251 | 252 | 16.3 | 10 | 26.3 | 16.3 | 16 |
| 258 | 259 | 15.95 | 10 | 25.95 | 15.95 | 16 |
| 315 | 316 | 23.4 | 15 | 38.4 | 23.4 | 23 |
| 321 | 322 | 24 | 15 | 39 | 24 | 24 |
| 331 | 332 | 21.95 | 15 | 36.95 | 21.95 | 22 |

(2 HP8x36 piles at each location)

NOISE ABATEMENT WALL POST REPAIR (SOUTHBOUND)

| LOCATION (Btwn Wall Panels) | | Wall Height (L) (ft) | * Pile Embedment (Le) (ft) | Pile Length (ft) | 2 x12 Board Length (ft) | 1/2" Carriage bolts (each) |
|-----------------------------|-----|----------------------|----------------------------|------------------|-------------------------|----------------------------|
| 25 | 26 | 16 | 10 | 26 | 16 | 16 |
| 27 | 28 | 16 | 10 | 26 | 16 | 16 |
| 40 | 41 | 16.1 | 10 | 26.1 | 16.1 | 16 |
| 44 | 45 | 16.8 | 10.3 | 27.1 | 16.8 | 17 |
| 45 | 46 | 17.3 | 10.3 | 27.3 | 17.3 | 17 |
| 129 | 130 | 11.9 | 8.7 | 20.6 | 11.9 | 12 |
| 130 | 131 | 11.6 | 8.7 | 20.3 | 11.6 | 12 |
| 131 | 132 | 11.3 | 8.7 | 20 | 11.3 | 11 |
| 1321 | 133 | 11.1 | 8.7 | 19.8 | 11.1 | 11 |
| 137 | 138 | 11.3 | 8.7 | 20 | 11.3 | 11 |
| 142 | 143 | 11.6 | 8.7 | 20.3 | 11.6 | 12 |
| 161 | 162 | 12.7 | 9 | 21.7 | 12.7 | 13 |
| 162 | 163 | 12.9 | 9 | 21.9 | 12.9 | 13 |
| 164 | 165 | 13.5 | 9.3 | 22.8 | 13.5 | 14 |
| 167 | 168 | 13.7 | 9.5 | 23.2 | 13.7 | 14 |
| 175 | 176 | 14.6 | 9.8 | 24.4 | 14.6 | 15 |
| 186 | 187 | 16 | 10 | 26 | 16 | 16 |
| 187 | 188 | 16 | 10 | 26 | 16 | 16 |
| 188 | 189 | 16.1 | 10 | 26.1 | 16.1 | 16 |
| 208 | 209 | 15.4 | 10 | 25.4 | 15.4 | 15 |
| 299 | 300 | 16.2 | 10 | 26.2 | 16.2 | 16 |
| 307 | 308 | 19 | 10.7 | 29.7 | 19 | 19 |
| 359 | 360 | 19.5 | 11 | 30.5 | 19.5 | 20 |
| 366 | 367 | 20 | 11 | 31 | 20 | 20 |
| 367 | 368 | 19.9 | 11 | 30.9 | 19.9 | 20 |
| 371 | 372 | 20.3 | 11 | 31.3 | 20.3 | 20 |

(2 HP8x36 piles at each location)

* Pile embedment is based on a 12 foot wall panel length.

BILL OF MATERIAL - NORTHBOUND

| Item | Unit | Total |
|------------------------------|--------|-------|
| Furnishing Steel Pile HP8x36 | Foot | 617 |
| Driving Piles | Foot | 244 |
| Treated Timber | F.B.M. | 4216 |
| Hardware | Pound | 187 |

BILL OF MATERIAL - SOUTHBOUND

| Item | Unit | Total |
|------------------------------|--------|-------|
| Furnishing Steel Pile HP8x36 | Foot | 1487 |
| Driving Piles | Foot | 694 |
| Treated Timber | F.B.M. | 5781 |
| Hardware | Pound | 397 |

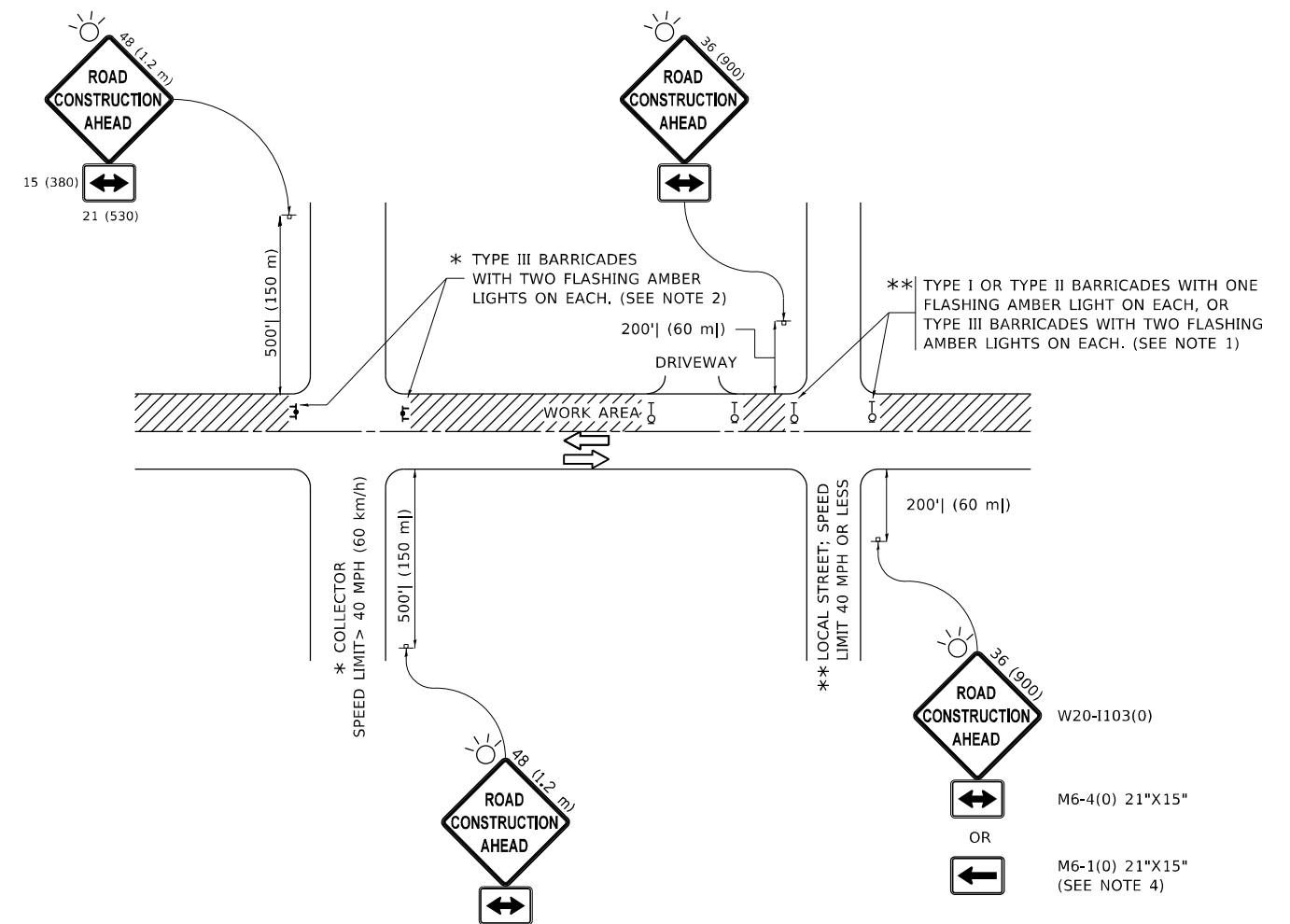
| | | |
|-------------------|--|--------------------|
| DESIGNED - VHV | EXAMINED | DATE - MAY 4, 2021 |
| CHECKED - ATH | <i>Timothy A. Daburdell</i> ENGINEER OF STRUCTURAL SERVICES | REVISED - |
| DRAWN - daburdell | PASSED | REVISED - |
| CHECKED - VHV ATH | <i>Carl R. Rupp</i> ENGINEER OF BRIDGES AND STRUCTURES | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR LOCATIONS
IL RTE 53 NOISE ABATEMENT WALL

SHEET NO. 4 OF 5 SHEETS

| | | | | |
|---------------------------|------------|--------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 2020-260-4 | COOK | 11 | 7 |
| CONTRACT NO. 62N29 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

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| | | |
|------------------------------|-------------------|---------------------------------|
| USER NAME = paraynoal | DESIGNED - L.H.A. | REVISED - A. HOUSEH 10-15-96 |
| PLOT SCALE = 100,0000' / in. | CHECKED - | REVISED - T. RAMMACHER 01-06-00 |
| PLOT DATE = 4/27/2021 | DATE - 06-89 | REVISED - A. SCHUETZE 07-01-13 |
| | | REVISED - A. SCHUETZE 09-15-16 |

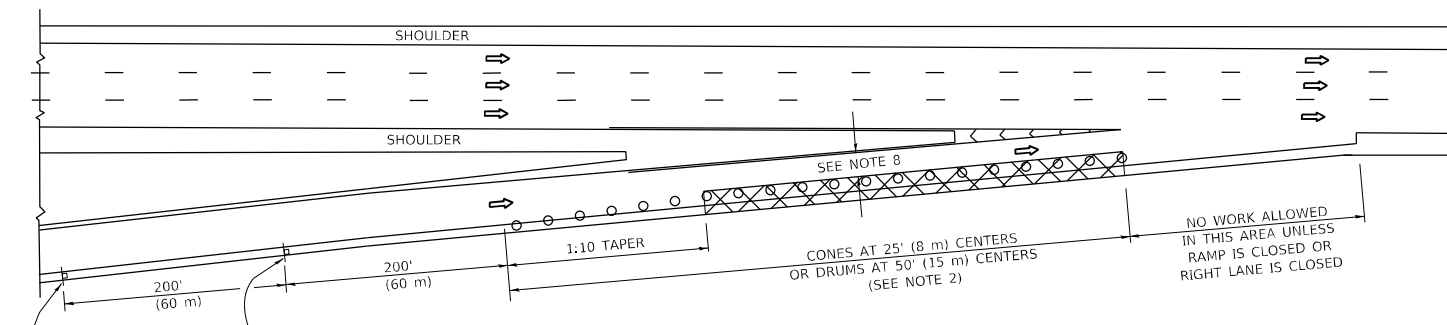
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

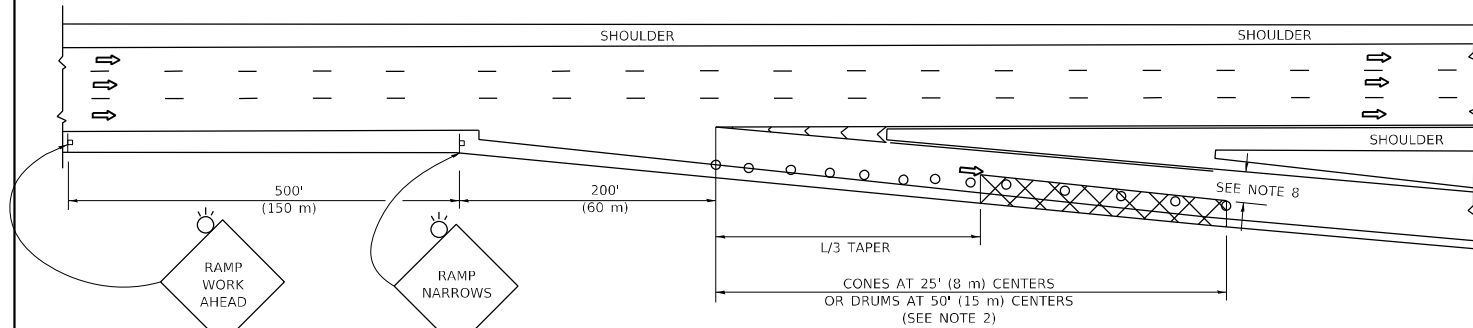
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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| 342 | 2020-260-I | COOK | 11 | 9 |
| TC-10 | | CONTRACT NO. 62N29 | | |
| ILLINOIS FED. AID PROJECT | | | | |

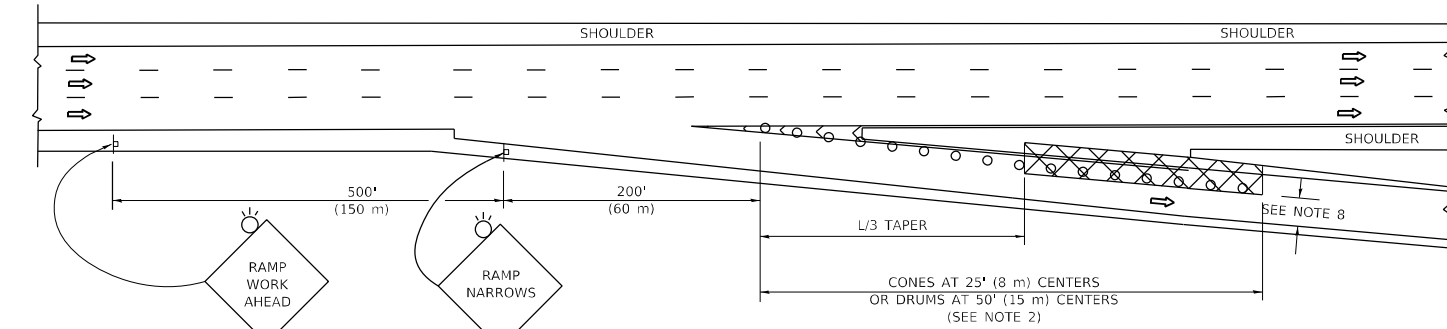
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

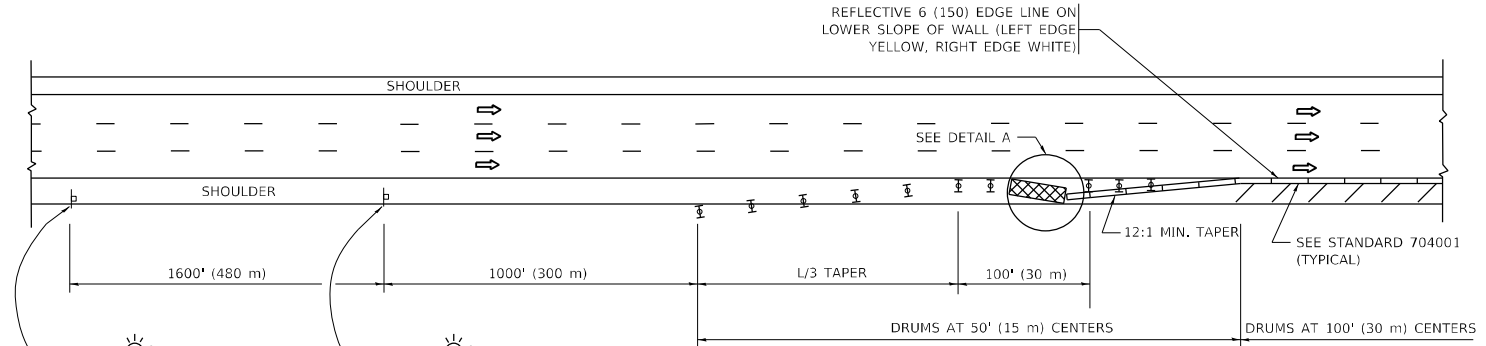
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES:

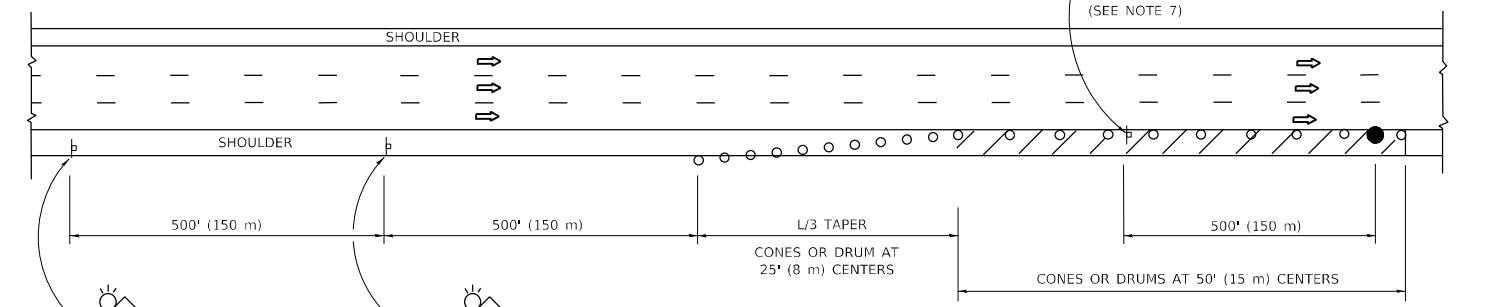
1. THE "L" DISTANCE EQUALS:

| | |
|---|-----------------------------|
| $L = \frac{S^2}{300}$ | $L = \frac{S^2}{1.47}$ |
| <small>SPEED LIMIT</small> | <small>FORMULAS</small> |
| 45 mph (80 km/h) | METRIC ENGLISH |
| OR GREATER: | $L = 0.65(W/S)$ $L = (W/S)$ |
| <small>W = WIDTH OF OFFSET IN FEET (METERS)</small> | |
| <small>S = NORMAL POSTED SPEED MPH (KM/H)</small> | |
2. TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



PERMANENT SHOULDER CLOSURE



TEMPORARY SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



**DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)**

5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

8. 12' MIN. WIDTH TANGENT SECTION
16' MIN. WIDTH CURVE SECTION.
9. TEMPORARY SHOULDER AND NON-SYSTEM INTERCHANGE PARTIAL RAMP CLOSURES ARE ALLOWED WEEKDAYS BETWEEN 9:00 A.M. AND 3:00 P.M. AND BETWEEN 7:00 P.M. AND 5:00 A.M. OR AS APPROVED BY THE EXPRESSWAY TRAFFIC OPERATIONS ENGINEER. PERMANENT SHOULDER AND PARTIAL RAMP CLOSURES WILL ONLY BE PERMITTED IF CALLED FOR IN THE PLANS OR AS APPROVED BY THE EXPRESSWAY OPERATIONS ENGINEER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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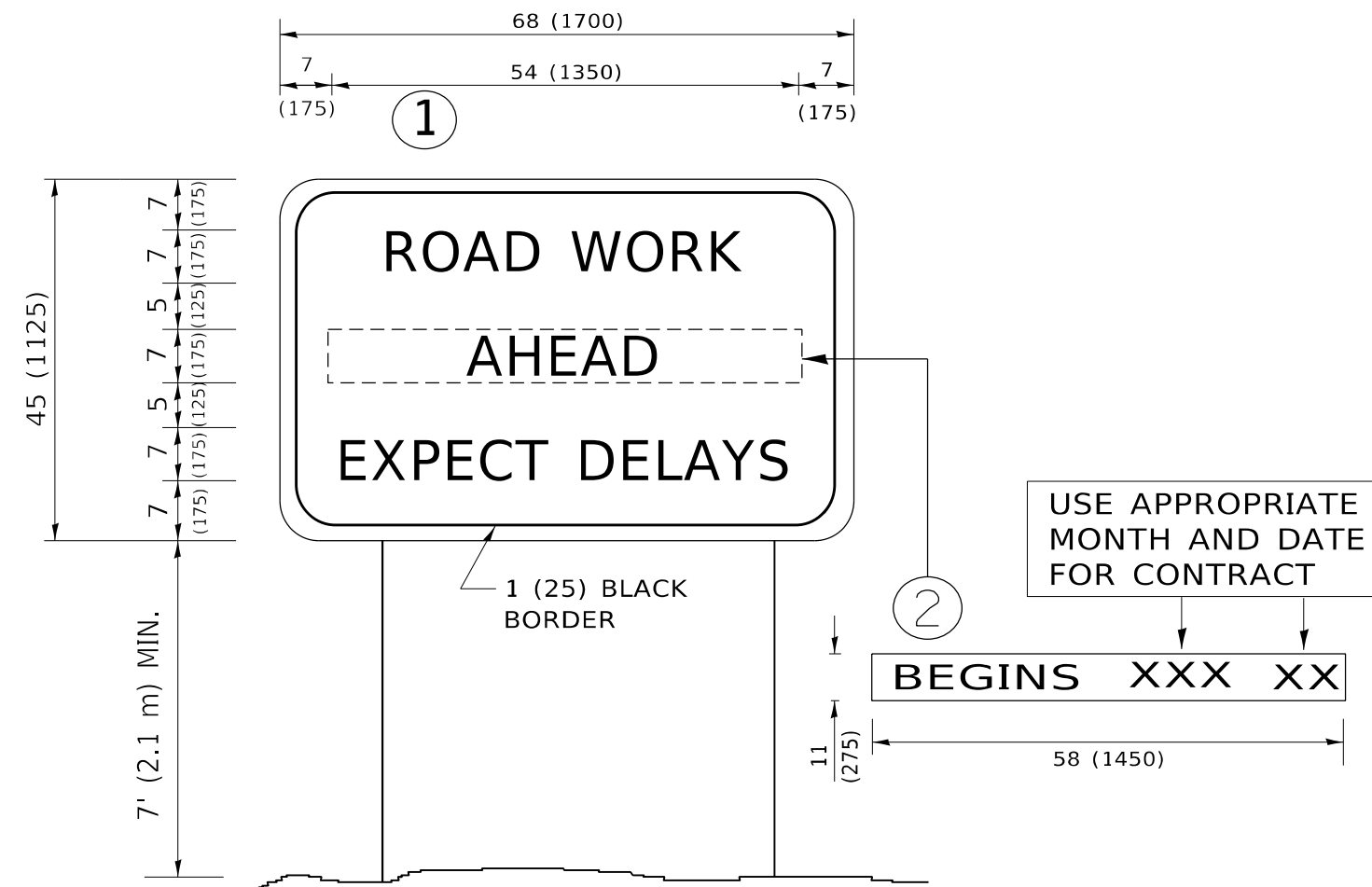
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| USER NAME = paraynoal | DESIGNED - | REVISED - S.P.B. 12-09 |
| | DRAWN - D.W.S. | REVISED - M.D. 06-13 |
| PLOT SCALE = 100,0000' / in. | CHECKED - | REVISED - M.D. 01-18 |
| PLOT DATE = 4/27/2021 | DATE - 11-96 | REVISED - M.D. 10-20 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

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| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 342 | 2020-260-I | COOK | 11 | 10 |
| TC-17 | | | CONTRACT NO. 62N29 | |
| ILLINOIS FED. AID PROJECT | | | | |



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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|-------------------------------|------------|---------------------------------|
| USER NAME = paraynoal | DESIGNED - | REVISED - R. MIRS 09-15-97 |
| | DRAWN - | REVISED - R. MIRS 12-11-97 |
| PLOT SCALE = 100,0000 ' / in. | CHECKED - | REVISED - T. RAMMACHER 02-02-99 |
| PLOT DATE = 4/27/2021 | DATE - | REVISED - C. JUCIUS 01-31-07 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|------------|--------------------|--------------|-----------|
| 342 | 2020-260-I | COOK | 11 | 11 |
| TC-22 | | CONTRACT NO. 62N29 | | |
| ILLINOIS FED. AID PROJECT | | | | |