

**DOUGHERTY FERRY ROAD IMPROVEMENTS – ADDENDUM #1**  
**City of Manchester, MO**  
**Federal Project STP-5504(601)**  
**January 28, 2021**

This addendum is hereby made part of the contract documents of the above referenced project. This addendum supplements and/or amends the originally issued documents and all related addenda.

**Specification Revision (attached herein):**

- Updated Bid Form (Page 9-10) to reflect modifications to Lines 6, 8, & 14.

**Plan Revisions (attached herein):**

- The plan sheets have been updated as follows:
  - Sheet 2 (1 of 2): Added “Fill or Remove Abandoned Sewer” note.
  - Sheet 2 (2 of 2): Defined thickness of Vertical Concrete Curb & Gutter and Integral Rolled Concrete Curb & Gutter
  - Sheet 2A: Updated quantities on Lines 6, 8, & 14.
  - Sheet 2B (1 of 2): Updated Asphalt and Curb & Gutter quantities.
  - Sheet 3: Added pipe and manhole abandonment notes.

**ACKNOWLEDGEMENT OF ADDENDUM #1**

The bidder will acknowledge receipt of this Addendum and acceptance of its conditions by signing this Addendum and including it with the bid.

**SIGNATURE:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**COMPANY:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

Dougherty Ferry Road – Roadway Improvements

**ITEMIZED BID:** The bidder should complete the following section in accordance with Sec 102.7. The bidder proposes to furnish all labor, materials, equipment, services, etc. required for the performance and completion of the work, as follows:

**ITEMIZED BID FORM (ADDENDUM #1)**

| CITY OF MANCHESTER - DOUGHERTY FERRY ROAD – ROADWAY IMPROVEMENTS |             |  |      |          |            |       |
|--|-------------|--|------|----------|------------|-------|
| LINE NUMBER  | ITEM NUMBER | DESCRIPTION  | UNIT | QUANTITY | UNIT PRICE | TOTAL |
|  |             | <b>ROADWAY ITEMS:</b>  |      |          |            |       |
| 001  | 2013000     | CLEARING AND GRUBBING  | L.S. | 1        |            |       |
| 002  | 2022010     | REMOVAL OF IMPROVEMENTS  | L.S. | 1        |            |       |
| 003  | 2031000     | CLASS 'A' EXCAVATION   | C.Y. | 1380     |            |       |
| 004  | 2036000     | COMPACTING EMBANKMENT  | C.Y. | 840      |            |       |
| 005  | 2039907     | EXCAVATION OF UNSUITABLE MATERIAL AND BACKFILL OF RESULTING EXCAVATION                           | C.Y. | 200      |            |       |
| 006  | 3040504     | TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)  | S.Y. | 3655     |            |       |
| 007  | 4011209     | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)  | TONS | 508.5    |            |       |
| 008  | 4011211     | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-2)  | TONS | 141.0    |            |       |
| 009  | 4013000     | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BASE)  | TONS | 1108.6   |            |       |
| 010  | 4019905     | ASPHALT PAVEMENT REPAIR  | S.Y. | 250      |            |       |
| 011  | 4071005     | TACK COAT  | GAL  | 260      |            |       |
| 012  | 5021106     | CONCRETE PAVEMENT (6" NON-REINFORCED)  | S.Y. | 259.1    |            |       |
| 013  | 6042010     | ADJUSTING BASIN OR INLET   | EACH | 1        |            |       |
| 014  | 6099903     | CONCRETE CURB & GUTTER, VERTICAL   | L.F. | 2009     |            |       |
| 015  | 6099904     | INTEGRAL CONCRETE ROLLED CURB & GUTTER   | L.F. | 170      |            |       |
| 016  | 6161005     | CONSTRUCTION SIGNS   | S.F. | 292      |            |       |
| 017  | 6161025     | CHANNELIZERS (TRIM LINE)   | EACH | 36       |            |       |
| 018  | 6181000     | MOBILIZATION   | L.S. | 1        |            |       |
| 019  | 6161031     | TYPE III MOVEABLE BARRICADE WITH LIGHTS  | EACH | 11       |            |       |
| 020  | 6161099     | CHANGEABLE MESSAGE BOARD WITH COMMUNICATION INTERFACE, CONTRACTOR FURNISHED, CONTRACTOR RETAINED | EACH | 2        |            |       |
| 021  | 6221001     | COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS)                   | S.Y. | 2623     |            |       |
| 022  | 6274000     | CONTRACTOR FURNISHED SURVEYING AND STAKING   | L.S. | 1        |            |       |

**ITEMIZED BID FORM - CONTINUED (ADDENDUM #1)**

| LINE NUMBER  | ITEM NUMBER     | DESCRIPTION   | UNIT | QUANTITY        | UNIT PRICE      | TOTAL |
|--------------|-----------------|---|------|-----------------|-----------------|-------|
| 023          | 7259901         | 12" PIPE  | L.F. | 170             |                 |       |
| 024          | 7259902         | 15" PIPE  | L.F. | 122             |                 |       |
| 025          | 7259903         | 30" PIPE  | L.F. | 63              |                 |       |
| 026          | 7319902         | MANHOLE   | EACH | 2               |                 |       |
| 027          | 7319904         | SINGLE CURB INLET, UNTRAPPED  | EACH | 3               |                 |       |
| 028          | 7319905         | AREA INLET, SINGLE, OPEN 4 SIDES, UNTRAPPED                           | EACH | 1               |                 |       |
| 029          | 8061019         | SILT FENCE  | L.F. | 528             |                 |       |
| 030          | 8069902         | INLET PROTECTION DEVICE, SINGLE UNIT - FILTER SOCK/ROLL               | EACH | 5               |                 |       |
| 031          | 8069904         | INLET PROTECTION DEVICE, SINGLE UNIT - FABRIC DROP                    | EACH | 6               |                 |       |
|              |                 |   |      |                 | <b>Subtotal</b> |       |
|              |                 | <b>PEDESTRIAN FACILITIES:</b>   |      |                 |                 |       |
| 032          | 6081010         | CONCRETE CURB RAMP  | S.Y. | 32              |                 |       |
| 033          | 6081012         | TRUNCATED DOMES   | S.F. | 66              |                 |       |
| 034          | 6086004         | CONCRETE SIDEWALK, 4 IN.  | S.Y. | 273             |                 |       |
| 035          | 6092021         | INTEGRAL CURB (OVER 6" HEIGHT) TYPE A                                 | L.F. | 50              |                 |       |
|              |                 |   |      |                 | <b>Subtotal</b> |       |
|              |                 | <b>PAVEMENT MARKING ITEMS:</b>  |      |                 |                 |       |
| 036          | 6200021         | PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT/RIGHT ARROW            | EACH | 4               |                 |       |
| 037          | 6206000C        | 4 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS  | L.F. | 2912            |                 |       |
| 038          | 6206001C        | 4 IN. YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS | L.F. | 3401            |                 |       |
|              |                 |   |      |                 | <b>Subtotal</b> |       |
|              |                 | <b>LANDSCAPE/STREETSCAPING ITEMS:</b>                                 |      |                 |                 |       |
| 039          | 8031000A        | TURF TYPE TALL FESCUE SODDING   | S.Y. | 2713            |                 |       |
| 040          | 8069902         | IRRIGATION LINE REPLACEMENT   | L.F. | 400             |                 |       |
| 041          | 8069903         | IRRIGATION HEAD REPLACEMENT   | EACH | 10              |                 |       |
|              |                 |   |      |                 | <b>Subtotal</b> |       |
| <b>TOTAL</b> | <b>WRITTEN:</b> |   |      | <b>NUMBERS:</b> |                 |       |

**GENERAL NOTES**

- 1) ALL ROAD CONSTRUCTION TO BE IN ACCORDANCE WITH MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, MOST RECENT EDITION.
- 2) COMPACT TOP 12" OF SUBGRADE AND EACH LAYER OF BACKFILL OR BACKFILL MATERIAL AT 90% MODIFIED PROCTOR (A.S.T.M. D1557) MAXIMUM DENSITY FOR COHESIVE MATERIAL OR 70% RELATIVE DENSITY (A.S.T.M. D4253 AND A.S.T.M. D4254) FOR COHESIVE MATERIAL.
- 3) REMOVE ALL WASTE MATERIALS, INCLUDING EXCAVATED MATERIAL, CONCRETE STORM SEWER, TRASH, AND DEBRIS, AND DISPOSE OF IT OFF OWNERS PROPERTY. ANY STAGING OR STORAGE OF MATERIALS OFF CITY RIGHT-OF-WAY SHALL BE APPROVED BY THE CITY OF MANCHESTER.
- 4) CONTRACTOR SHALL REMOVE, STORE, & REINSTALL AT THE COMPLETION OF CONSTRUCTION ALL MAILBOXES, FENCES, AND SIGNS AFFECTED BY CONSTRUCTION, SUBSEQUENTLY IF DAMAGE OCCURS, IT SHALL BE REPLACED BY CONTRACTOR. CITY SHALL PROVIDE TEMPORARY MAIL SERVICE FACILITIES FOR ALL RESIDENTS.
- 5) THE CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL FEATURES IN ACCORDANCE WITH ANY LOCAL, STATE AND FEDERAL REGULATIONS AND OBTAIN ANY NECESSARY PERMITS FOR LAND DISTURBANCE. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN TO THE CITY DIRECTOR OF PUBLIC WORKS FOR REVIEW PRIOR TO THE START OF CONSTRUCTION. EROSION CONTROL FEATURES SHALL BE ADEQUATE TO STOP ERODED MATERIAL FROM LEAVING THE SITE. SILTATION CONTROL DEVICES SHALL BE MAINTAINED BY THE CONTRACTOR DURING GRADING OPERATIONS AND UNTIL SUFFICIENT VEGETATION IS ESTABLISHED TO PREVENT EROSION. TEMPORARY SILTATION DEVICES SHALL BE REMOVED UPON COMPLETION OF RE-VEGETATION.
- 6) EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS WERE COMPILED FROM THE BEST AVAILABLE RECORDS. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO ESTABLISH EXACT LOCATIONS, DEPTHS, AND POSSIBLE RELOCATION OF THE MAINS PRIOR TO CONSTRUCTION AND SHALL FULLY COMPLY WITH THE PROVISIONS OF THE UNDERGROUND FACILITY SAFETY AND DAMAGE PROVISIONS ACT, CHAPTER 319 RSMO. ALL UTILITIES, EITHER SHOWN OR NOT SHOWN, IN DIRECT CONFLICT WITH THIS CONSTRUCTION SHALL BE RELOCATED BY OTHERS (RESPECTIVE UTILITY COMPANY). CONTRACTOR SHALL COORDINATE THE WORK WITH EACH UTILITY COMPANY AFFECTED.
- 7) THE CONTRACTOR SHALL KEEP ALL PAVEMENTS CLEAN AND FREE OF MUD, ROCK AND DEBRIS AT ALL TIMES DURING CONSTRUCTION.
- 8) THE CONTRACTOR SHALL NOTIFY EACH AFFECTED PROPERTY OWNER A MINIMUM OF 24 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION AND/OR GRADING.
- 9) THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES, ONE LANE OF TRAFFIC THROUGH AREAS OF IMMEDIATE CONSTRUCTION (SEE PLANS AND SPECS FOR TRAFFIC CONTROL, BARRICADES AND SIGNAGE). CONTRACTOR SHALL REMOVE, STORE AND REINSTALL AT THE COMPLETION OF CONSTRUCTION, ALL SIGNS WITHIN THE CONSTRUCTION LIMITS. CONTRACTOR SHALL REPLACE ALL SIGNS DAMAGED BY CONSTRUCTION.
- 10) ALL 0.5" PREMOLDED EXPANSION JOINTS SHALL EXTEND FROM SUBGRADE TO 0.5" BELOW TOP OF FINISHED SURFACE OF CONCRETE. THE UPPER 0.5" SHALL BE OPEN AND EDGES OF CONCRETE SHALL BE ROUNDED TO 0.25" RADIUS.
- 11) CONTRACTOR TO PROVIDE COMPACTED GRANULAR BACKFILL TO THE SUBGRADE OF THE PAVEMENT FOR ALL TRENCHES UNDER PAVEMENT. ALL OTHER TRENCHES WITHIN THE RIGHT-OF-WAY SHALL BE BACKFILLED WITH COMPACTED GRANULAR BACKFILL TO WITHIN TWO (2) FEET OF FINISHED GRADE. TOP TWO (2) FEET OF THE TRENCH SHALL BE BACKFILLED WITH COMPACTED EARTH/FILL. ALL OTHER TRENCHES OUTSIDE OF THE RIGHT-OF-WAY SHALL BE BACKFILLED WITH COMPACTED EARTH/FILL, UNLESS OTHERWISE SHOWN IN THE PLANS.
- 12) CONTRACTOR SHALL ADJUST TO GRADE ALL WATER METER VAULTS, STOP BOX LIDS, METER LIDS AND WATER VALVE BOXES.
- 13) PROVIDE ADEQUATE OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
- 14) INTERIM STORM SEWER WATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES IS REQUIRED.
- 15) ANY DISTURBED OFF SITE PROPERTY (I.E. BUSHES, FENCES, MAILBOXES, ETC.) SHALL BE REPLACED, IN KIND, AT THE CONTRACTOR'S EXPENSE.
- 16) CONTRACTOR SHALL SOD ANY NON-PAVED AREAS DISTURBED BY CONSTRUCTION.
- 17) CONTRACTOR MUST MAINTAIN ACCESS TO RESIDENTIAL AND COMMERCIAL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION. IF TEMPORARY CLOSURES OF DRIVEWAYS ARE REQUIRED, 24 HOUR NOTICE SHALL BE PROVIDED TO THE CITY.
- 18) ANY FILL REQUIRED SHALL BE CLEAN AND FREE OF ANY DEBRIS OR CONSTRUCTION MATERIAL.
- 19) CARE SHALL BE TAKEN TO AVOID DISTURBING ANY PROPERTY MARKERS ENCOUNTERED DURING CONSTRUCTION, ANY PROPERTY MARKERS REMOVED TO ALLOW FOR GRADING, SHALL BE REPLACED, NO DIRECT PAY FOR THIS WORK.
- 20) CONTRACTOR SHALL NOT STORE CONSTRUCTION MATERIAL ON ANY PROPERTY WITHOUT PRIOR WRITTEN CONSENT FROM PROPERTY OWNER.
- 21) CONTRACTOR TO COORDINATE WITH HOMEOWNER & ENGINEER TO DETERMINE THE LOCATION OF EXISTING IRRIGATION HEADS AND LINES. CONTRACTOR TO PROTECT KNOWN IRRIGATION HEADS. ENGINEER WILL DETERMINE WHETHER RELOCATION OF THE FACILITY IS NECESSARY TO ACCOMMODATE CONSTRUCTION. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR IRRIGATION LINE AND IRRIGATION HEADS. IRRIGATION LINES, HEADS, AND RELATED APPURTENANCES DAMAGED BY THE CONTRACTOR OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

**MSD STANDARD CONSTRUCTION NOTES:**

ALL STORM AND SANITARY SEWER STRUCTURES AND APPURTENANCES TO BE DEDICATED TO MSD, OR TO BE PRIVATE UNDER MSD INSPECTION, SHALL CONFORM TO THE METROPOLITAN ST. LOUIS SEWER DISTRICT, STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2009, THAT WILL INCLUDE STANDARD DETAILS SHOWN THEREIN, AND SHALL INCLUDE ALL SUBSEQUENT CHANGES MADE THERETO.

SOME RECENT CHANGES CONCERN PIPE FIELD TESTING AND PERFORMANCE, AND INCLUDE THE FOLLOWING:

**PART 2 - MATERIALS OF CONSTRUCTION**

HIGH DENSITY POLYETHYLENE (HDPE) PIPE IS NOT ALLOWED FOR GRAVITY SEWERS FOR STORM, COMBINED, OR SANITARY SEWERS THAT ARE "PUBLIC" OR "PRIVATE UNDER MSD INSPECTION".

POLYPROPYLENE (PP) PIPE IS ALLOWED AS FOLLOWS FOR GRAVITY SEWERS THAT ARE "PUBLIC" OR "PRIVATE UNDER MSD INSPECTION":

FOR USE IN SANITARY AND COMBINED SEWERS 12 TO 60 INCHES IN DIAMETER IT SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2764 "STANDARD SPECIFICATION FOR 6 TO 60 IN. POLYPROPYLENE (PP) CORRUGATED DOUBLE AND TRIPLE WALL PIPE AND FITTINGS FOR NON-PRESSURE SANITARY SEWER APPLICATIONS."

FOR USE IN STORM SEWERS 12 TO 24 INCHES IN DIAMETER IT SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2881 "STANDARD SPECIFICATION FOR 12 TO 60 IN. POLYPROPYLENE (PP) DUAL WALL PIPE AND FITTINGS FOR NON-PRESSURE STORM SEWER APPLICATIONS." OR

FOR USE IN STORM SEWERS 12 TO 60 INCHES IN DIAMETER IT SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2764 "STANDARD SPECIFICATION FOR 6 TO 60 IN. POLYPROPYLENE (PP) CORRUGATED DOUBLE AND TRIPLE WALL PIPE FITTINGS FOR NON-PRESSURE SANITARY SEWER APPLICATIONS."

**PART 4 - PIPE SEWER CONSTRUCTION**

SECTION B, PIPE FIELD TESTS, PARAGRAPH 2, REACH INTEGRITY TESTING - DELETE THE FIRST SENTENCE AND THE FOLLOWING REPLACEMENT APPLIES:

ALL SANITARY AND COMBINED SEWERS SHALL SUSTAIN A MAXIMUM LEAKAGE LIMIT OF 100 GALLONS/INCH OF PIPE DIAMETER/MILE OF LINE/DAY, AS REQUIRED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES SPECIFICATIONS.

SECTION B, PIPE FIELD TESTS, PARAGRAPH 2, REACH INTEGRITY TESTING, SUBPARAGRAPH C, INFILTRATION/EXFILTRATION TESTING - DELETE THE SIXTH SENTENCE, CONCERNING LEAKAGE LIMITS, AND THE FOLLOWING REPLACEMENT APPLIES:

THE MEASUREMENT OF LEAKAGE SHALL NOT EXCEED 100 GALLONS/INCH OF PIPE DIAMETER/MILE OF LINE/DAY, AS REQUIRED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES SPECIFICATIONS.

SECTION B, PIPE FIELD TESTS, PARAGRAPH 4, MANHOLE TESTING, SUBPARAGRAPH A, VACUUM TESTING - AFTER THE FIRST SENTENCE, THE FOLLOWING ADDITION APPLIES:

THE VACUUM TEST MUST BE PERFORMED PRIOR TO BACKFILLING AROUND THE MANHOLE UNLESS THE CONTRACTOR PROVIDES DOCUMENTATION FROM THE PRECAST MANHOLE MANUFACTURER STATING THAT THE MANHOLE MAY BE VACUUM TESTED AFTER BACKFILLING HAS TAKEN PLACE. THE CONTRACTOR MUST SUBMIT THIS DOCUMENTATION PRIOR TO BACKFILLING AROUND ANY MANHOLE.

SECTION B, PIPE FIELD TESTS, PARAGRAPH 4, MANHOLE TESTING, SUBPARAGRAPH B, EXFILTRATION TESTING - DELETE THE SECOND SENTENCE, CONCERNING LEAKAGE LIMITS, AND THE FOLLOWING ADDITION APPLIES:

FOR EXFILTRATION TESTING, THE ALLOWABLE LEAKAGE LIMIT IS 100 GALLONS/INCH OF PIPE DIAMETER/MILE OF LINE/DAY WHEN THE AVERAGE HEAD ON THE TEST SECTION IS THREE FEET (3') OR LESS.

**ADJUSTMENTS OF MANHOLES TO GRADE:**

THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES

MANHOLES MAY BE RAISED USING COURSES OF BRICK OR APPROVED GRADE RING(S), PROVIDED THE TOTAL ADJUSTMENT OF THE MANHOLE DOES NOT EXCEED 12-INCHES INCLUDING EXISTING RINGS OR COURSES OF BRICK. FOR MANHOLES WHICH WILL EXCEED THE MAXIMUM OF 12-INCHES, THE TRANSITION SECTION OF THE STRUCTURE SHALL BE REMOVED AND THE BOTTOM SECTION RAISED USING THE SAME MATERIAL AS THE EXISTING STRUCTURE.

MANHOLES MAY BE LOWERED BY REMOVING THE TRANSITION SECTION, AND LOWERING THE EXISTING BOTTOM SECTION BY SAWCUTTING THE EXISTING CAST-IN-PLACE CONCRETE, REMOVING THE REQUIRED COURSES OF BRICK, OR REMOVING THE PRECAST RISER SECTION AS APPROPRIATE.

**REMOVE, REPLACE, OR REHABILITATE STRUCTURE:**

THE REMOVAL AND REPLACEMENT, OR REHABILITATION OF THE EXISTING PUBLIC STRUCTURE(S) WILL BE DETERMINED BY THE MSD FIELD INSPECTOR. IF THE STRUCTURE IS DETERMINED TO REMAIN IN PLACE, THEN THE TOP SHALL BE ADJUSTED TO GRADE, IF NEEDED.

**PUBLIC SEWER MAINTENANCE:**

MAINTENANCE OF THE SEWERS DESIGNATED "PUBLIC" SHALL BE THE RESPONSIBILITY OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT UPON DEDICATION OF THE SEWERS TO THE DISTRICT.

**COMPACTED FILL REQUIREMENTS:**

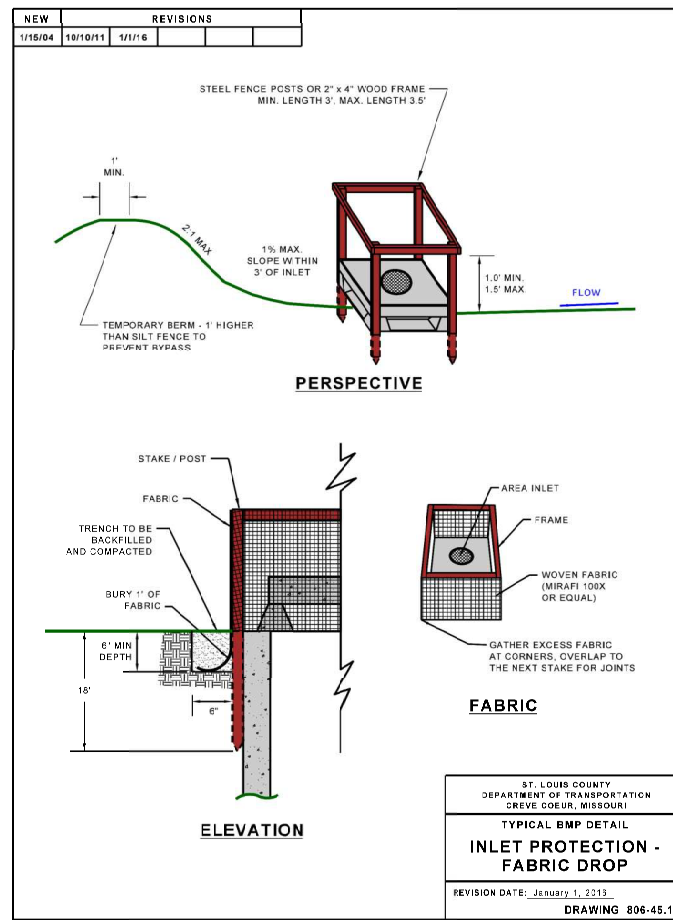
A REGISTERED PROFESSIONAL ENGINEER WILL VERIFY THAT ALL COMPRESSIBLE MATERIAL HAS BEEN REMOVED PRIOR TO FILL PLACEMENT AND THAT ALL FILL, AND FILLED AREAS, INCLUDING TRENCH BACKFILLS, UNDER BUILDINGS AND UNDER SANITARY AND STORM SEWER LINES CONSTRUCTED ABOVE THE ORIGINAL GROUND SURFACE, HAS BEEN COMPACTED TO 90% MODIFIED PROCTOR. FILL IS TO BE PLACED IN A MAXIMUM OF NINE-INCH (9") LIFTS. TESTS SHALL BE TAKEN AT A MAXIMUM OF FIFTY-FOOT (50') WIDE INTERVALS ALONG THE ROUTE OF THE PIPE, AT A MAXIMUM INTERVAL OF TWO FEET (2'), VERTICALLY AND LATERALLY ON EACH SIDE OF THE PIPE, AT A DISTANCE EQUAL TO THE DEPTH OF FILL OVER THE PIPE. A COPY OF THESE RESULTS WILL BE SUBMITTED TO MSD PRIOR TO THE PLACEMENT OF THE SEWER PIPE.

**SHOP DRAWINGS:**

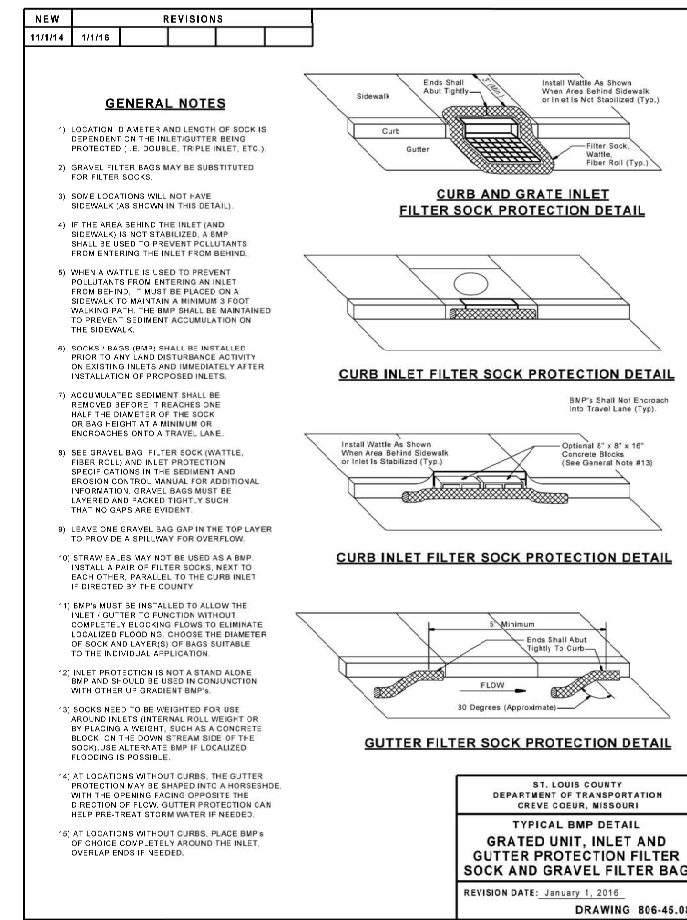
THE PROJECT ENGINEER SHALL PROVIDE SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN MISSOURI FOR APPROVAL TO MSD PRIOR TO CONSTRUCTION OF THESE STRUCTURES. STRUCTURES SHALL BE DESIGNED TO SUSTAIN HS-20 LOADS. PLEASE CONTACT THE DISTRICT'S CONSTRUCTION MANAGEMENT DIVISION AT (314) 335-2072 FOR QUESTIONS.

**FILL OR REMOVE ABANDONED SEWER:**

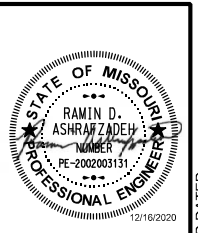
ABANDONED SEWERS SHALL BE REMOVED OR COMPLETELY FILLED WITH GROUT.



1/1/2016 Page 125 Sediment and Erosion Control Manual Standard Drawings



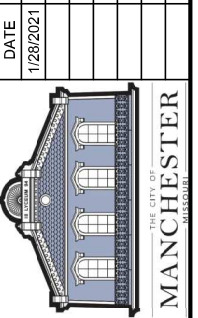
1/1/2016 Page 124 Sediment and Erosion Control Manual Standard Drawings



|                  |                      |
|------------------|----------------------|
| NAME:            | RAMIN D. ASHRAFZADEH |
| DISCIPLINE:      | ENGINEER             |
| LICENSE NO.:     | PE-2002003131        |
| EXPIRATION DATE: | 12/16/2020           |
| DATE PREPARED:   | 12/16/2020           |
| ROUTE:           | STATE: MO            |
| DISTRICT:        | SHEET NO. 2          |
| COUNTY:          | ST LOUIS             |
| JOB NO.:         | 1812200              |

FEDERAL PROJECT NO. STP-5504(601)

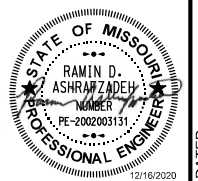
| DATE      | DESCRIPTION | ADDENDUM #1 |
|-----------|-------------|-------------|
| 1/28/2021 |             |             |



**HORNER SHIFFRIN**  
 THE POWER HOUSE AT UNION STATION  
 401 S. 18th St., Ste. 400  
 ST. LOUIS, MO 63103-2296  
 314-531-4321 FAX: 314-531-6966  
 www.hornershiffrin.com  
 Certificate of Authority: 000150  
 Expiration Date: December 31, 2020

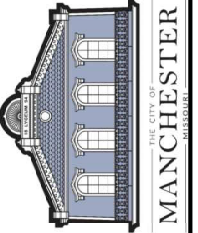
**DOUGHERTY FERRY ROAD**  
 TYPICAL SECTIONS & GENERAL NOTES  
 SHEET 1 OF 2

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



NAME: RAMIN D. ASHRAFZADEH  
 DISCIPLINE: ENGINEER  
 LICENSE NO. PE-2002003131  
 EXPIRATION DATE: 12/16/2020  
 DATE PREPARED: 12/16/2020  
 ROUTE: MO  
 STATE: MO  
 DISTRICT: SHEET NO. 2  
 COUNTY: ST LOUIS  
 JOB NO. 1812200  
 FEDERAL PROJECT NO. STP-5504(601)

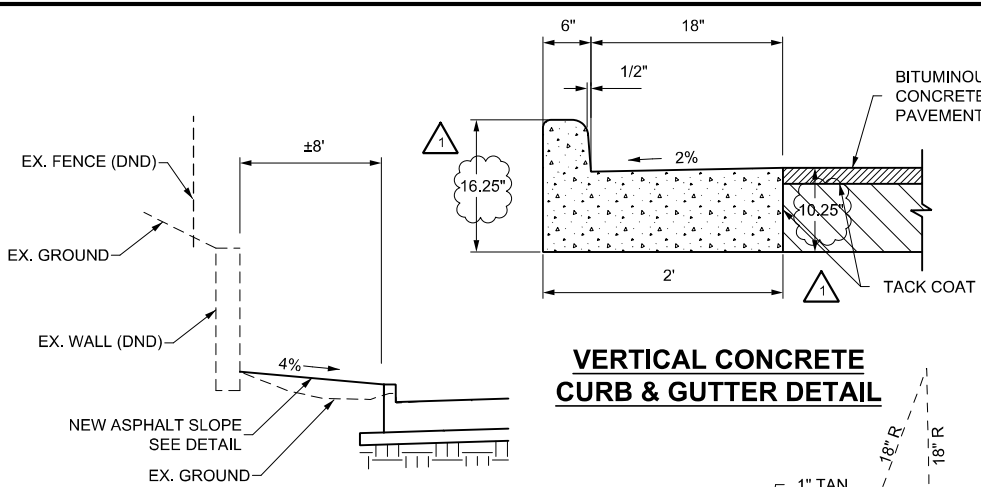
| DATE      | DESCRIPTION | ADDENDUM #1 |
|-----------|-------------|-------------|
| 1/28/2021 |             |             |



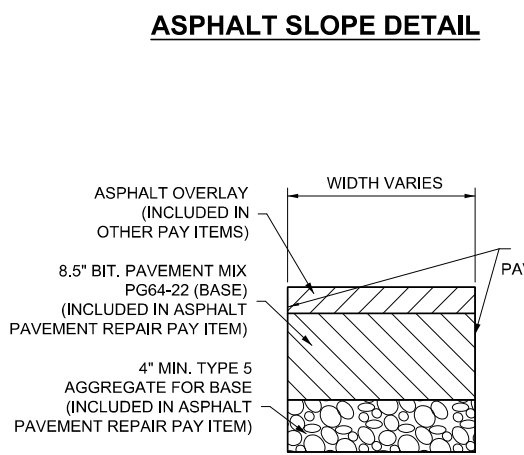
**HORNER SHIFFRIN**  
 THE POWER HOUSE AT UNION STATION  
 401 S. 18th St., Ste. 400  
 ST. LOUIS, MO 63103-2296  
 314-531-4321 FAX: 314-531-6966  
 www.horner-shiff.com  
 Certificate of Authority: 000150  
 Expiration Date: December 31, 2020

**DOUGHERTY FERRY ROAD**  
 TYPICAL SECTIONS & GENERAL NOTES  
 SHEET 2 OF 2

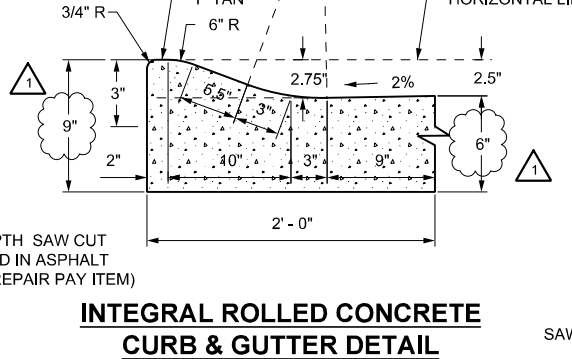
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



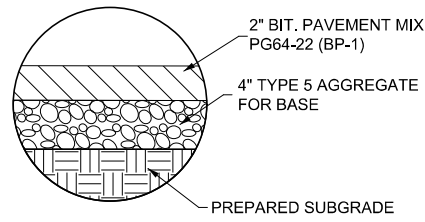
**VERTICAL CONCRETE CURB & GUTTER DETAIL**



**ASPHALT SLOPE DETAIL**



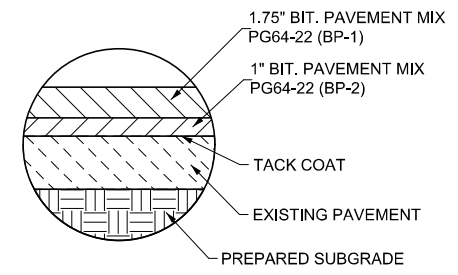
**INTEGRAL ROLLED CONCRETE CURB & GUTTER DETAIL**



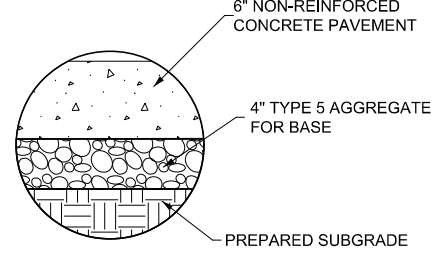
**ASPHALT PAVEMENT REPAIR**

PAVEMENT PATCH LOCATIONS TO BE DETERMINED BY ENGINEER

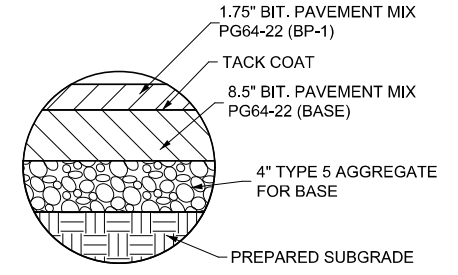
**ASPHALT SLOPE**



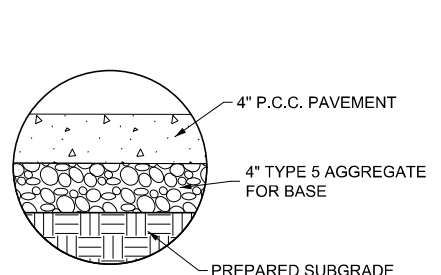
**ASPHALT OVERLAY**



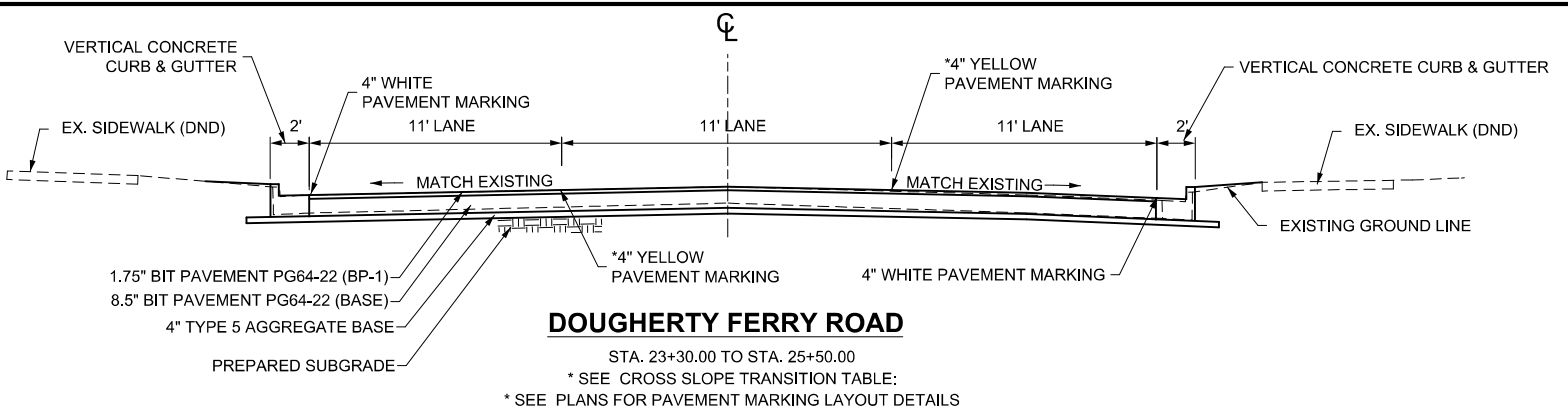
**CONCRETE SIDE STREET**



**FULL DEPTH ASPHALT**

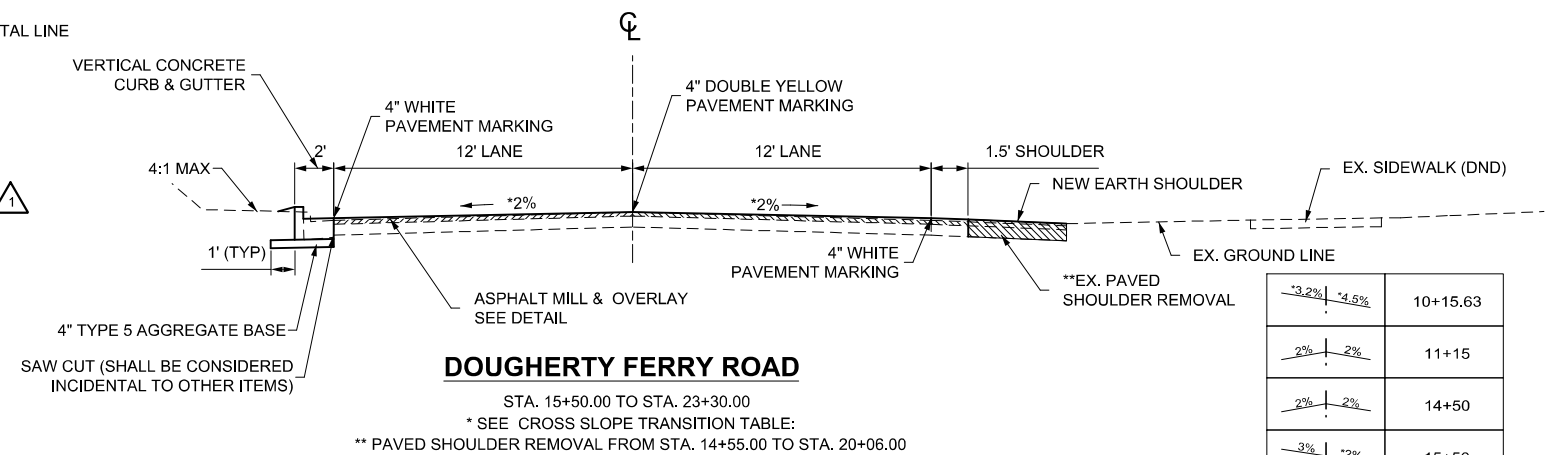


**CONCRETE SIDEWALK**



**DOUGHERTY FERRY ROAD**

STA. 23+30.00 TO STA. 25+50.00  
 \* SEE CROSS SLOPE TRANSITION TABLE:  
 \* SEE PLANS FOR PAVEMENT MARKING LAYOUT DETAILS



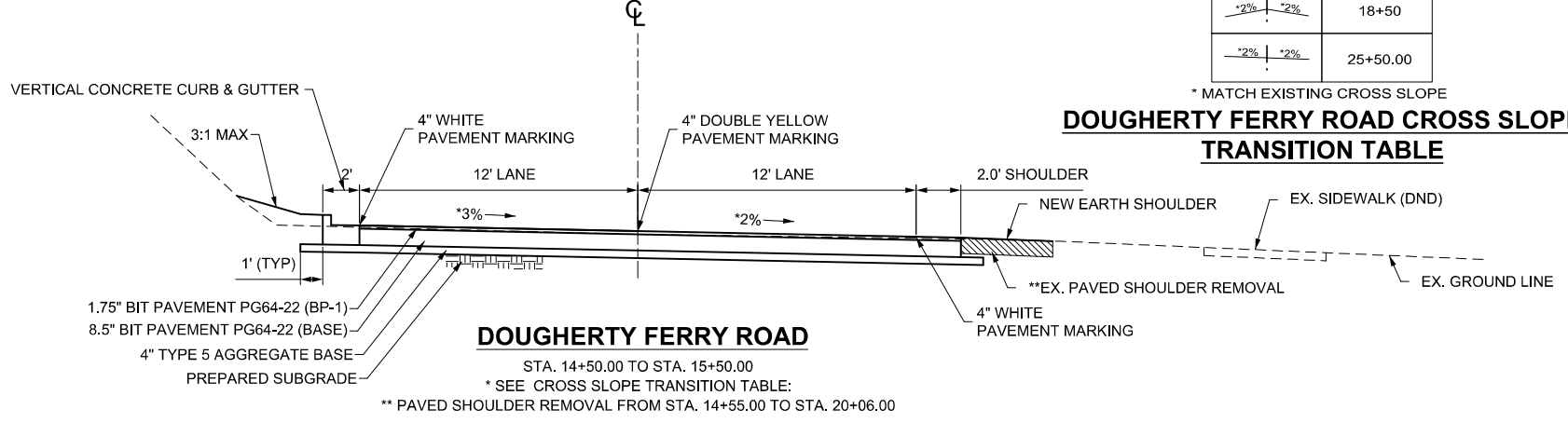
**DOUGHERTY FERRY ROAD**

STA. 15+50.00 TO STA. 23+30.00  
 \* SEE CROSS SLOPE TRANSITION TABLE:  
 \*\* PAVED SHOULDER REMOVAL FROM STA. 14+55.00 TO STA. 20+06.00

|               |          |
|---------------|----------|
| -3.2%   +4.5% | 10+15.63 |
| 2%   2%       | 11+15    |
| 2%   2%       | 14+50    |
| 3%   +2%      | 15+50    |
| 3%   +2%      | 17+50    |
| +2%   +2%     | 18+50    |
| +2%   +2%     | 25+50.00 |

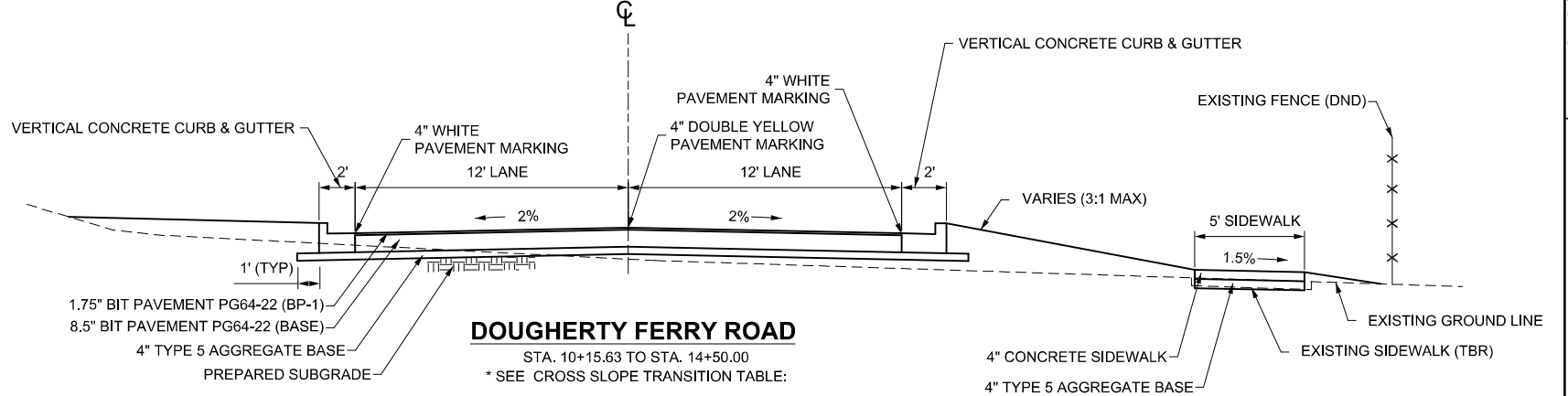
\* MATCH EXISTING CROSS SLOPE

**DOUGHERTY FERRY ROAD CROSS SLOPE TRANSITION TABLE**



**DOUGHERTY FERRY ROAD**

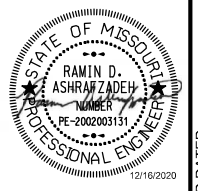
STA. 14+50.00 TO STA. 15+50.00  
 \* SEE CROSS SLOPE TRANSITION TABLE:  
 \*\* PAVED SHOULDER REMOVAL FROM STA. 14+55.00 TO STA. 20+06.00



**DOUGHERTY FERRY ROAD**

STA. 10+15.63 TO STA. 14+50.00  
 \* SEE CROSS SLOPE TRANSITION TABLE:

MSD #: 20MSD-00297  
 BASE MAP: 25P1



NAME: RAMIN D. ASHRAFZADEH  
 DISCIPLINE: ENGINEER  
 LICENSE NO. PE-2002003131  
 EXPIRATION DATE: 12/16/22

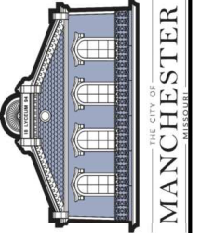
DATE PREPARED: 12/16/2020

ROUTE: STATE: MO  
 DISTRICT: SHEET NO. 2A

COUNTY: ST LOUIS  
 JOB NO. 1812200

FEDERAL PROJECT NO. STP-5504(601)

| DATE      | DESCRIPTION | ADDENDUM #1 |
|-----------|-------------|-------------|
| 1/28/2021 |             |             |
|           |             |             |
|           |             |             |
|           |             |             |
|           |             |             |
|           |             |             |
|           |             |             |
|           |             |             |
|           |             |             |



**HORNER SHIFRIN**  
 THE POWER HOUSE AT UNION STATION  
 401 S. 18th St., Ste. 400  
 ST. LOUIS, MO 63103-2296  
 314-531-4321 FAX: 314-531-6966  
 www.HornerShifrin.com  
 Certificate of Authority: 000150  
 Expiration Date: December 31, 2020

**DOUGHERTY FERRY ROAD**  
**SUMMARY OF QUANTITIES**

| SUMMARY OF QUANTITIES                 |             |  |      |          |
|---------------------------------------|-------------|--|------|----------|
| LINE NUMBER                           | ITEM NUMBER | DESCRIPTION  | UNIT | QUANTITY |
| <b>ROADWAY ITEMS:</b>                 |             |  |      |          |
| 001                                   | 2013000     | CLEARING AND GRUBBING  | L.S. | 1        |
| 002                                   | 2022010     | REMOVAL OF IMPROVEMENTS  | L.S. | 1        |
| 003                                   | 2031000     | CLASS 'A' EXCAVATION   | C.Y. | 1380     |
| 004                                   | 2036000     | COMPACTING EMBANKMENT  | C.Y. | 840      |
| 005                                   | 2039907     | EXCAVATION OF UNSUITABLE MATERIAL AND BACKFILL OF RESULTING EXCAVATION                           | C.Y. | 200      |
| 006                                   | 3040504     | TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)  | S.Y. | 3655     |
| 007                                   | 4011209     | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)  | TONS | 2005     |
| 008                                   | 4011211     | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-2)  | TONS | 1441.0   |
| 009                                   | 4013000     | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BASE)  | TONS | 1106.6   |
| 010                                   | 4019905     | ASPHALT PAVEMENT REPAIR  | S.Y. | 250      |
| 011                                   | 4071005     | TACK COAT  | GAL  | 260      |
| 012                                   | 5021106     | CONCRETE PAVEMENT (6" NON-REINFORCED)  | S.Y. | 259.1    |
| 013                                   | 6042010     | ADJUSTING BASIN OR INLET   | EACH | 1        |
| 014                                   | 6099903     | CONCRETE CURB & GUTTER, VERTICAL   | L.F. | 2009     |
| 015                                   | 6099904     | INTEGRAL CONCRETE ROLLED CURB & GUTTER   | L.F. | 170      |
| 016                                   | 6161005     | CONSTRUCTION SIGNS   | S.F. | 292      |
| 017                                   | 6161025     | CHANNELIZERS (TRIM LINE)   | EACH | 36       |
| 018                                   | 6181000     | MOBILIZATION   | L.S. | 1        |
| 019                                   | 6161031     | TYPE III MOVEABLE BARRICADE WITH LIGHTS  | EACH | 11       |
| 020                                   | 6161099     | CHANGEABLE MESSAGE BOARD WITH COMMUNICATION INTERFACE, CONTRACTOR FURNISHED, CONTRACTOR RETAINED | EACH | 2        |
| 021                                   | 6221001     | COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS)                   | S.Y. | 2623     |
| 022                                   | 6274000     | CONTRACTOR FURNISHED SURVEYING AND STAKING   | L.S. | 1        |
| 023                                   | 7259901     | 12" PIPE   | L.F. | 170      |
| 024                                   | 7259902     | 15" PIPE   | L.F. | 122      |
| 025                                   | 7259903     | 30" PIPE   | L.F. | 63       |
| 026                                   | 7319902     | MANHOLE  | EACH | 2        |
| 027                                   | 7319904     | SINGLE CURB INLET, UNTRAPPED   | EACH | 3        |
| 028                                   | 7319905     | AREA INLET, SINGLE, OPEN 4 SIDES, UNTRAPPED  | EACH | 1        |
| 029                                   | 8061019     | SILT FENCE   | L.F. | 528      |
| 030                                   | 8069902     | INLET PROTECTION DEVICE, SINGLE UNIT - FILTER SOCK/ROLL  | EACH | 5        |
| 031                                   | 8069904     | INLET PROTECTION DEVICE, SINGLE UNIT - FABRIC DROP   | EACH | 6        |
| <b>PEDESTRIAN FACILITIES:</b>         |             |  |      |          |
| 032                                   | 6081010     | CONCRETE CURB RAMP   | S.Y. | 32.4     |
| 033                                   | 6081012     | TRUNCATED DOMES  | S.F. | 66       |
| 034                                   | 6086004     | CONCRETE SIDEWALK, 4 IN.   | S.Y. | 273.0    |
| 035                                   | 6092021     | INTEGRAL CURB (OVER 6" HEIGHT) TYPE A  | L.F. | 50.0     |
| <b>PAVEMENT MARKING ITEMS:</b>        |             |  |      |          |
| 036                                   | 6200021     | PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT/RIGHT ARROW                                       | EACH | 4        |
| 037                                   | 6206000C    | 4 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS                             | L.F. | 2912     |
| 038                                   | 6206001C    | 4 IN. YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS                            | L.F. | 3401     |
| <b>LANDSCAPE/STREETSCAPING ITEMS:</b> |             |  |      |          |
| 039                                   | 8031000A    | TURF TYPE TALL FESCUE SODDING  | S.Y. | 2713     |
| 040                                   | 8069902     | IRRIGATION LINE REPLACEMENT  | L.F. | 400      |
| 041                                   | 8069903     | IRRIGATION HEAD REPLACEMENT  | EACH | 10       |



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

| EARTHWORK       |                      |                       |          |
|-----------------|----------------------|-----------------------|----------|
| LOCATION        | CLASS 'A' EXCAVATION | COMPACTING EMBANKMENT | REMARKS  |
|                 | VOLUME (CY)          | VOLUME (CY)           |          |
| DOUGHERTY FERRY | 1379.5               | 840.1                 | MAINLINE |
| TOTAL           | 1379.5               | 840.1                 |          |
| USE             | 1380                 | 840                   |          |

| EXCAVATION OF UNSUITABLE MATERIAL AND BACKFILL OF RESULTING EXCAVATION |  |                                      |
|--|--|--------------------------------------|
| LOCATION   | EXCAVATION OF UNSUITABLE MATERIAL AND BACKFILL OF RESULTING EXCAVATION | REMARKS                              |
|  | VOLUME (CY)  |                                      |
| DOUGHERTY FERRY  | 200.0  | USE ONLY AS DIRECTED BY THE ENGINEER |
| TOTAL  | 200.0  |                                      |
| USE  | 200  |                                      |

| CONCRETE PAVEMENT |          |      |                                       |   |                        |
|-------------------|----------|------|---------------------------------------|---|------------------------|
| LOCATION          | STATION  | SIDE | CONCRETE PAVEMENT (6" NON-REINFORCED) | TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) | REMARKS                |
|                   |          |      | AREA (SY)                             | AREA (SY)                               |                        |
| DOUGHERTY FERRY   | 11+72.39 | LT   | 259.1                                 | 259.1                                   | CHARLESTON PLACE COURT |
| TOTAL             |          |      | 259.1                                 | 259.1                                   |                        |
| USE               |          |      | 259.1                                 | 260                                     |                        |

| ASPHALT PAVEMENT  |          |          |      |           |   |               |   |               |   |               |                        |   |                     |
|-------------------|----------|----------|------|-----------|---|---------------|---|---------------|---|---------------|------------------------|---|---------------------|
| LOCATION          | STATION  | STATION  | SIDE | AREA (SY) | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1) |               | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BASE) |               | BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-2) |               | TACK COAT VOLUME (GAL) | TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) AREA (SY) | REMARKS             |
|                   |          |          |      |           | VOLUME (CY)                                 | TONS          | VOLUME (CY)                                 | TONS          | VOLUME (CY)                                 | TONS          |                        |   |                     |
| DOUGHERTY FERRY   | 10+15.63 | 15+50.00 | -    | 1446.0    | 70.3  | 136.9         | 341.4                                       | 663.3         | 72.3  | 1446.0        | 72.3                   | 1446.0  | FULL DEPTH PAVEMENT |
| DOUGHERTY FERRY   | 14+22.61 | -        | RT   | 96.3      | 4.7   | 9.2           | 22.7  | 44.1          | 4.8   | 96.3          | 4.8                    | 96.3  | LAKE BEND DRIVE     |
| DOUGHERTY FERRY   | 15+50.00 | 23+30.00 | -    | 2622.7    | 127.5                                       | 248.4         |   |               | 72.9  | 141.0         | 131.1                  |   | ASPHALT OVERLAY     |
| DOUGHERTY FERRY   | 20+45.00 | 23+34.78 | LT   | 288.9     | 16.0  | 31.2          |   |               |   |               | 288.9                  |   | ASPHALT SLOPE       |
| DOUGHERTY FERRY   | 23+30.00 | 25+55.00 | -    | 874.8     | 42.5  | 82.8          | 206.5                                       | 401.2         |   |               | 43.7                   | 874.8   | FULL DEPTH PAVEMENT |
| CONVERSION FACTOR |          |          |      |           |   | 1.948 TONS/CY |   | 1.943 TONS/CY |   | 1.934 TONS/CY | 0.05 GAL/SY            |   |                     |
| TOTAL             |          |          |      |           | 508.5                                       |               | 1108.6                                      |               | 141.0                                       |               | 251.9                  | 2706.0  |                     |
| USE               |          |          |      |           | 508.5                                       |               | 1108.6                                      |               | 141.0                                       |               | 260                    | 2706  |                     |

| ASPHALT PAVEMENT REPAIR |                         |  |
|-------------------------|-------------------------|--|
| LOCATION                | ASPHALT PAVEMENT REPAIR | REMARKS  |
|                         | AREA (SY)               |  |
| DOUGHERTY FERRY         | 250.0                   | INCLUDES SAWCUTTING, AGGREGATE BASE, AND EXCAVATION. SEE DETAIL. |
| TOTAL                   | 250.0                   |  |
| USE                     | 250                     |  |

\*EXACT LOCATIONS AND QUANTITIES TO BE DETERMINED BY ENGINEER

| STORM SEWER     |          |        |      |                  |              |             |             |             |                              |   |         |                          |   |
|-----------------|----------|--------|------|------------------|--------------|-------------|-------------|-------------|------------------------------|---|---------|--------------------------|---|
| LOCATION        | STATION  | OFFSET | SIDE | STRUCTURE NUMBER | TO STRUCTURE | 12" PIPE    | 15" PIPE    | 30" PIPE    | SINGLE CURB INLET, UNTRAPPED | AREA INLET, SINGLE, OPEN 4 SIDES, UNTRAPPED | MANHOLE | ADJUSTING BASIN OR INLET | REMARKS                                   |
|                 |          |        |      |                  |              | LENGTH (FT) | LENGTH (FT) | LENGTH (FT) |                              |   |         |                          |   |
| DOUGHERTY FERRY | 11+00.00 | 18.5   | RT   | 1.7              | 1.6          | 37.0        |             |             | 1                            |   |         |                          |   |
| DOUGHERTY FERRY | 11+00.00 | 18.5   | LT   | 1.6              | 1.5          | 121.1       |             |             | 1                            |   |         |                          | BACK SIDE OPEN (NORTH) FOR DITCH TO DRAIN |
| DOUGHERTY FERRY | 12+21.13 | 18.5   | LT   | 1.5              | 1.4          |             | 121.7       |             | 1                            |   |         |                          |   |
| DOUGHERTY FERRY | 12+21.13 | 30.5   | LT   | 2.1              | 1.5          | 12.0        |             |             |                              | 1   |         |                          |   |
| DOUGHERTY FERRY | 13+42.83 | 16.6   | LT   | 1.4              | 1.3          |             |             | 63.0        |                              |   | 1       |                          |   |
| DOUGHERTY FERRY | 13+92.38 | 22.4   | RT   | 1.3              | -            |             |             |             |                              |   | 1       |                          |   |
| DOUGHERTY FERRY | 18+37.42 | 18.0   | LT   | -                | -            |             |             |             |                              |   |         | 1                        |   |
| TOTAL           |          |        |      |                  |              | 170.1       | 121.7       | 63.0        | 3                            | 1   | 2       | 1                        |   |
| USE             |          |        |      |                  |              | 170         | 122         | 63          | 3                            | 1   | 2       | 1                        |   |

| COLDMILLING BITUMINOUS PAVEMENT |          |          |  |         |
|---------------------------------|----------|----------|--|---------|
| LOCATION                        | STATION  | STATION  | COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS) | REMARKS |
|                                 |          |          | AREA (SY)  |         |
| DOUGHERTY FERRY                 | 15+50.00 | 23+30.00 | 2622.7   |         |
| TOTAL                           |          |          | 2622.7   |         |
| USE                             |          |          | 2623   |         |

| TEMPORARY EROSION CONTROL |          |          |      |   |  |             |         |
|---------------------------|----------|----------|------|---|--|-------------|---------|
| LOCATION                  | STATION  | STATION  | SIDE | INLET PROTECTION DEVICE, SINGLE UNIT - FILTER SOCK/ROLL | INLET PROTECTION DEVICE, SINGLE UNIT - FABRIC DROP | SILT FENCE  | REMARKS |
|                           |          |          |      | EACH (EA)   | EACH (EA)  | LENGTH (LF) |         |
| DOUGHERTY FERRY           | 11+00.00 | -        | LT   | 1   |  |             |         |
| DOUGHERTY FERRY           | 11+00.00 | -        | RT   | 1   | 1  |             |         |
| DOUGHERTY FERRY           | 12+21.13 | -        | RT   | 1   |  |             |         |
| DOUGHERTY FERRY           | 12+21.13 | -        | LT   | 1   |  |             |         |
| DOUGHERTY FERRY           | 12+21.13 | -        | LT   |   | 1  |             |         |
| DOUGHERTY FERRY           | 15+55.50 | -        | RT   |   | 1  |             |         |
| DOUGHERTY FERRY           | 16+47.52 | -        | RT   |   | 1  |             |         |
| DOUGHERTY FERRY           | 18+35.54 | -        | RT   |   | 1  |             |         |
| DOUGHERTY FERRY           | 18+37.42 | -        | LT   |   | 1  |             |         |
| DOUGHERTY FERRY           | 23+47.19 |          | LT   | 1   |  |             |         |
| DOUGHERTY FERRY           | 10+00.00 | 14+09.00 | RT   |   |  | 407         |         |
| DOUGHERTY FERRY           | 14+34.00 | 14+48.00 | RT   |   |  | 15          |         |
| DOUGHERTY FERRY           | 19+00.00 | 20+06.00 | RT   |   |  | 106         |         |
| TOTAL                     |          |          |      | 5   | 6  | 528         |         |
| USE                       |          |          |      | 5   | 6  | 528         |         |

| CURB & GUTTER          |          |          |      |                                  |  |   |         |
|------------------------|----------|----------|------|----------------------------------|--|---|---------|
| LOCATION               | STATION  | STATION  | SIDE | CONCRETE CURB & GUTTER, VERTICAL | INTEGRAL CONCRETE ROLLED CURB & GUTTER | TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) | REMARKS |
|                        |          |          |      | LENGTH (LF)                      | LENGTH (LF)                            | AREA (SY)                               |         |
| DOUGHERTY FERRY        | 10+15.63 | 13+89.91 | RT   | 372.4                            |  | 124.1                                   |         |
| DOUGHERTY FERRY        | 10+15.63 | 11+29.71 | LT   | 115.6                            |  | 38.5                                    |         |
| DOUGHERTY FERRY        | 12+15.38 | 23+34.78 | LT   | 1120.8                           |  | 373.6                                   |         |
| DOUGHERTY FERRY        | 23+91.11 | 25+55.00 | RT   | 159.0                            |  | 53.0                                    |         |
| DOUGHERTY FERRY        | 24+00.00 | 25+55.00 | LT   | 160.4                            |  | 53.5                                    |         |
| CHARLESTON PLACE DRIVE | 0+12.00  | 0+69.88  | RT   |                                  | 83.5                                   | 9.3                                     |         |
| CHARLESTON PLACE DRIVE | 0+12.00  | 0+69.88  | LT   |                                  | 86.3                                   | 9.6                                     |         |
| LAKE BEND DRIVE        | 0+12.00  | 0+42.94  | RT   | 39.9                             |  | 13.3                                    |         |
| LAKE BEND DRIVE        | 0+12.00  | 0+42.94  | LT   | 40.8                             |  | 13.6                                    |         |
| TOTAL                  |          |          |      | 2008.9                           | 169.8                                  | 688.5                                   |         |
| USE                    |          |          |      | 2009                             | 170                                    | 689                                     |         |

| SIDEWALK               |          |          |      |                           |                 |                          |                                       |         |
|------------------------|----------|----------|------|---------------------------|-----------------|--------------------------|---------------------------------------|---------|
| LOCATION               | STATION  | STATION  | SIDE | CONCRETE CURB RAMP, 7 IN. | TRUNCATED DOMES | CONCRETE SIDEWALK, 4 IN. | INTEGRAL CURB (OVER 6" HEIGHT) TYPE A | REMARKS |
|                        |          |          |      | AREA (SY)                 | AREA (SF)       | AREA (SY)                | LENGTH (LF)                           |         |
| CHARLESTON PLACE COURT | 0+17.76  | 0+25.76  | LT   | 11.9                      | 24.0            |                          |                                       |         |
| CHARLESTON PLACE COURT | 0+27.60  | 0+53.57  | LT   |                           |                 | 15.3                     |                                       |         |
| CHARLESTON PLACE COURT | 0+18.41  | 0+22.10  | RT   | 5.8                       | 12.0            |                          |                                       |         |
| CHARLESTON PLACE COURT | 0+24.75  | 0+78.85  | RT   |                           |                 | 28.8                     |                                       |         |
| DOUGHERTY FERRY        | 9+95.20  | 14+03.91 | RT   |                           |                 | 225.8                    |                                       |         |
| DOUGHERTY FERRY        | 11+44.16 | 11+49.16 | RT   | 6.4                       | 10.0            |                          |                                       |         |
| DOUGHERTY FERRY        | 14+03.91 | 14+09.91 | RT   | 4.2                       | 10.0            |                          |                                       |         |
| DOUGHERTY FERRY        | 14+35.27 | 14+41.27 | RT   | 4.1                       | 10.0            |                          |                                       |         |
| DOUGHERTY FERRY        | 14+41.27 | 14+46.29 | RT   |                           |                 | 2.5                      |                                       |         |
| DOUGHERTY FERRY        | 12+55.00 | 13+05.00 | RT   |                           |                 |                          | 50.0                                  |         |
| TOTAL                  |          |          |      | 32.4                      | 66.0            | 272.4                    | 50.0                                  |         |
| USE                    |          |          |      | 32.4                      | 66              | 273                      | 50                                    |         |

| SODDING         |          |          |      |                               |         |
|-----------------|----------|----------|------|-------------------------------|---------|
| LOCATION        | STATION  | STATION  | SIDE | TURF TYPE TALL FESCUE SODDING | REMARKS |
|                 |          |          |      | AREA (SY)                     |         |
| DOUGHERTY FERRY | 10+00.00 | 14+10.00 | RT   | 673.4                         |         |
| DOUGHERTY FERRY | 10+15.63 | 11+60.00 | LT   | 324.6                         |         |
| DOUGHERTY FERRY | 11+85.00 | 20+45.00 | LT   | 1232.0                        |         |
| DOUGHERTY FERRY | 14+34.00 | 20+06.00 | RT   | 347.7                         |         |
| DOUGHERTY FERRY | 23+32.00 | 23+47.00 | LT   | 14.7                          |         |
| DOUGHERTY FERRY | 23+91.00 | 25+55.00 | RT   | 47.6                          |         |
| DOUGHERTY FERRY | 24+00.00 | 25+55.00 | LT   | 73.1                          |         |
| TOTAL           |          |          |      | 2713.1                        |         |
| USE             |          |          |      |                               |         |

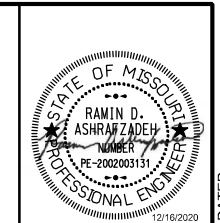
| IRRIGATION      |                             |                             |                                      |
|-----------------|-----------------------------|-----------------------------|--------------------------------------|
| LOCATION        | IRRIGATION LINE REPLACEMENT | IRRIGATION HEAD REPLACEMENT | REMARKS                              |
|                 | LENGTH (LF)                 | EACH (EA)                   |                                      |
| DOUGHERTY FERRY | 400                         | 10                          | USE ONLY AS DIRECTED BY THE ENGINEER |
| TOTAL           | 400                         | 10                          |                                      |
| USE             | 400                         | 10                          |                                      |

**MOBILIZATION**  
LUMP SUM = 1

**CONTRACTOR FURNISHED SURVEYING AND STAKING**  
LUMP SUM = 1

**REMOVAL OF IMPROVEMENTS**  
LUMP SUM = 1

**CLEARING AND GRUBBING**  
LUMP SUM = 1



NAME: RAMIN D. ASHRAFZADEH  
DISCIPLINE: ENGINEER  
LICENSE NO.: PE-2002003151  
EXPIRATION DATE: 12/16/2020

DATE PREPARED: 12/16/2020

ROUTE: STATE: MO  
DISTRICT: SHEET NO.: 2B

COUNTY: ST LOUIS  
JOB NO.: 1812200

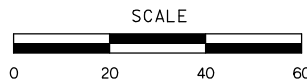
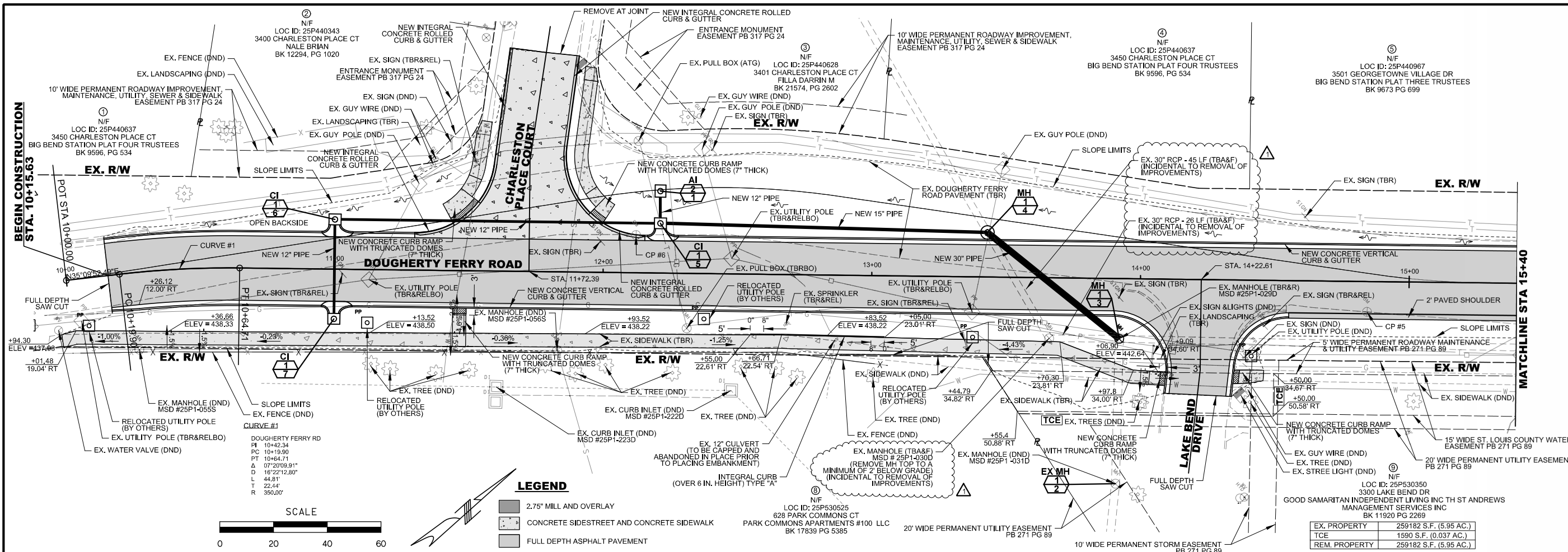
FEDERAL PROJECT NO.: STP-5504(601)

| DATE      | DESCRIPTION |
|-----------|-------------|
| 1/28/2021 | ADDENDUM #1 |



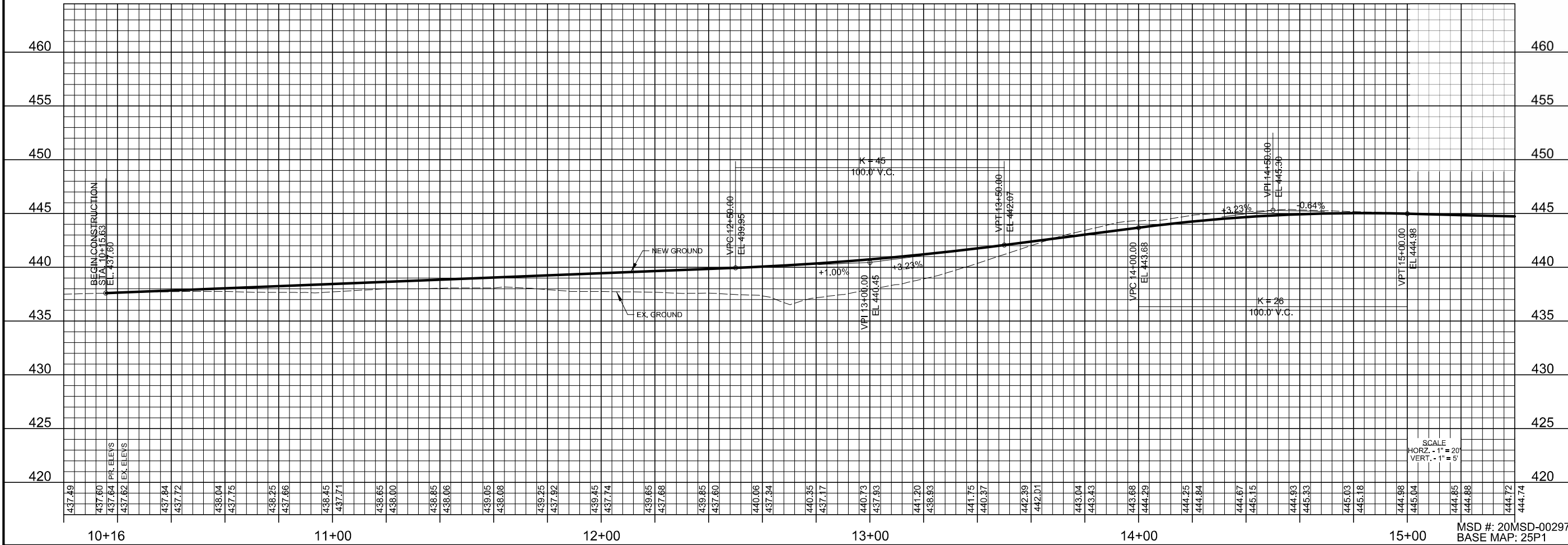
**HORNER SHIFFRIN**  
THE POWER HOUSE AT UNION STATION  
401 S. 18th St., Ste. 400  
ST. LOUIS, MO 63103-2296  
314-531-4321 FAX: 314-531-6966  
www.horner-shiffrin.com  
Certificate of Authority: 000156  
Expiration Date: December 31, 2020

**DOUGHERTY FERRY ROAD**  
**SCHEDULE OF QUANTITIES**  
**SHEET 1 OF 2**



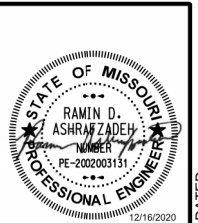
- LEGEND**
- 2.75" MILL AND OVERLAY
  - CONCRETE SIDESTREET AND CONCRETE SIDEWALK
  - FULL DEPTH ASPHALT PAVEMENT

|               |                        |
|---------------|------------------------|
| EX. PROPERTY  | 259182 S.F. (5.95 AC.) |
| TCE           | 1590 S.F. (0.037 AC.)  |
| REM. PROPERTY | 259182 S.F. (5.95 AC.) |



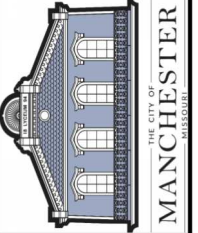
SCALE  
HORIZ. - 1" = 20'  
VERT. - 1" = 5'

MSD #: 20MSD-00297  
BASE MAP: 25P1



|                      |                      |
|----------------------|----------------------|
| NAME:                | RAMIN D. ASHRAFZADEH |
| DISCIPLINE:          | ENGINEER             |
| LICENSE NO.:         | PE-202003151         |
| EXPIRATION DATE:     | 12/31/22             |
| DATE PREPARED:       | 12/16/2020           |
| ROUTE:               | MO                   |
| STATE:               | 3                    |
| DISTRICT:            |                      |
| SHEET NO.:           |                      |
| COUNTY:              | ST LOUIS             |
| JOB NO.:             | 1812200              |
| FEDERAL PROJECT NO.: | STP-5504(601)        |

| DATE      | DESCRIPTION | ADDENDUM #1 |
|-----------|-------------|-------------|
| 1/28/2021 |             |             |



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www.horner-shiff.com  
Certificate of Authority: 000150  
Expiration Date: December 31, 2020

**DOUGHERTY FERRY ROAD**  
**PLAN AND PROFILE**  
**SHEET 1 OF 3**

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