**CITY OF MOBILE**
**Innovating St. Louis Street: Mobile's Technology Corridor**
**Project No. 2018-3005-19**

**ADDENDUM #1**

This addendum includes: pre-bid sign in sheet, responses to contractor questions, revised quantities and revised contract language. This addendum consists of a total of 30 pages, including the cover page.

A final addendum will be posted on Monday, June 9, 2025 by COB that will include any remaining questions received prior to the deadline of 3pm on June 6, 2025 and an updated proposal form.

Instructions: Please acknowledge receipt of this addendum by signing this form and including it in your submittal on June 11, 2025.

Acknowledgment: I hereby acknowledge receipt of Addendum 1. I understand that failure to confirm the receipt of addenda may be cause for rejection of this submittal.

_____
Company

_____
Authorized Signature

_____
Date

**THE CONTRACT DOCUMENTS WILL BE AMENDED AS FOLLOWS:**

1. Replace this language on page 48: “ESTIMATE: (23) In making partial payments to the CONTRACTOR, the CITY shall retain no more than (5%) of the estimated amount of work done, the value of materials stored on the site (if applicable), and the value of materials suitably stored and insured off-site (if applicable). Following fifty percent (50%) completion, no further retainage shall be withheld. Each payment request must be accompanied by the DBE utilization report, with the following language:

   *ESTIMATE: (23) In making partial payments to the CONTRACTOR, the CITY shall retain no more than (5%) of the estimated amount of work done, the value of materials stored on the site (if applicable), and the value of materials suitably stored and insured off-site (if applicable). Following fifty percent (50%) completion, no further retainage shall be withheld. Each payment request must be accompanied by the DBE utilization report and a CPM Schedule.*

2. Add revised MAWSS summary of quantities as shown in Attachment “A”

3. Update MAWSS summary of quantities, sheet 120, as shown in attachment “B”

4. Update General Utility notes on sheet 119 as shown in Attachment “C”

5. Add Special Provisions as shown in Attachment “D”

6. Add pipe connection at culvert details Attachment “E”

# St Louis Street Pre-Bid Meeting Questions
## June 4, 2025

1. The summary of quantities show a total of 4 Each LCCs; however, the plan sheets and details show 5 total. Which is correct?
   LCC "A", LCC "B", LCC "C" and LCC "E" will be new. LCC "D" is existing and will be modified as show on sheet 78

2. Plan Sheet 62 shows a demo legend of F. This legend says that the lighting assembly and foundation are to be removed, and the existing luminaire is to be placed on a new pole. Is the foundation to be removed or retained? The summary of quantities indicates there are 128 Each Pole Foundations, and 133 Each Light Pole and Fixtures (supplied by the city). The difference is the 5 Each in question.
   There are 5 existing light poles and fixtures on the project that do not match the City's current standards. These 5 existing light poles have a foundation. The contractor will only have to remove the existing pole fixture and place the new pole and fixture on the existing foundation.

3. Please confirm the LCCs and lighting circuits are a 120V circuit

   Yes, LCCs and lighting circuits are 120V.

4. Sheet 75, Plan View detail in top right corner and Section A-A in bottom right corner indicates a GRC conduit from the pull box the foundation. Why? This is unnecessary and very costly. PVC would be a better option
   GRC shall be required as shown on sheet 75.

5. On sheet 131 in the Utility section of the plans for the St. Louis Street project is the intention to bring that water line under the culvert at the intersections of N. Jefferson, N. Bayou, and N. Scott? Or could we cut out a portion of the culvert and pour it back?

   Due to existing underground utilities, contractor can anticipate open cut and removal of a portion of the culvert to install utilities. However, jack and bore is an acceptable method to install the utility under the existing culvert.

6. Articles of agreement, note 26 states funds are not in hand at the time of contract execution. Are funds currently in hand?

   Project funding agreements are signed and executed.

7. Will de-mobilization be required during Mardi Gras?

   The City will coordinate with the contractor well ahead of Mardi Gras to schedule what section will be closed and work underway to determine if any impact. De-mob is not expected at this time.

8. Which guidelines should be used for MAWSS utility materials and what is the meaning of being labeled in plans as “non-participating”?

   1. The non-participating label is a reference to the City/ALDOT funding agreement. It is immaterial to the bidding contractor.
   2. Generally, the MAWSS standards, specifications, and materials shall govern unless excluded by funding source restrictions or unless noted otherwise.

9. Is safety fence a one-time payment or paid each time it is moved and set up?

   Safety fence will be paid per linear foot as it is originally set on the project and will not be re-paid each time it is moved and set back up.

10. Can the bid opening date be extended?

    Bid opening will remain June 11, 2025 at 2:30pm.

11. Can excel spreadsheet be provided for the macro to turn in bid prices?

    Yes, this will be sent out to the pre-bid attendees via email.

12. City DBE goal states 15% participation. What is the Federal requirement?

    See link to federal regulation. This is also included on the agenda and in the bid documents.

13. Will the project be tied to the asphalt index or removed?

    The project will utilize the asphalt index as per ALDOT Specifications.

14. Will the City accept payment for stored materials?

    Yes. Payment will be acceptable for stored materials.

15. Is City property available nearby for staging or is it the contractor's responsibility to secure?

    There is no City property available along St. Louis Street. It is the contractor's responsibility to secure the location.

16. Can a structure excavation pay item be added?

    A structure excavation pay item will be added to the project and will be used in circumstances where additional excavation is needed beyond limits shown in project details.

17. Why is unclassified (210A-000) lump sum and not cubic yard?

    210A-000 shall remain lump sum due to the difficulties of tracking and quantifying materials.

18. How will pipe connections into existing culvert be handled?

    See detail in addendum.

19. Related to note 35, can pre-cast boxes be used?

    Due the unknown conflicts common in the downtown area, cast in place or brick drainage structures are recommended to be used on this project.

20. Special provisions note 22 states supporting utilities encountered will be paid under clearing and grubbing, for which no item exists. Can this pay item be added?

    The special provision note 22 for supporting utilities encountered during construction shall be modified to read that this work shall be considered a subsidiary obligation to mobilization.

21. Would the City entertain partial acceptance on completed blocks, specifically items like pipe videoing and landscaping?

    This can be proposed for certain pay items at the City's discretion.

    Note 25, sheet 2J states existing pipe cleaning to be paid under 534B and 524A. Is this correct? Can this be its own pay item?

    Note 25, sheet 2J shall be modified to read existing pipe cleaning and existing structure cleaning shall be paid for under pay items 534B and 534E.

22. Would the City entertain changing contract time to working days? There is a note that contradicts end date of Jan 31, 2028 in the proposal.

    This will not be changed. See addendum for clarification of bid documents.

23. Can utility work get a block or two ahead of other items of work that are in closed sections?

    The City will allow water main construction (excluding service connections and other tie ins) ahead of the individual block to block reconstruction sequence. Traffic control shall be taken to minimize disruptions and coordinated/approved by the City. Special care should be taken to minimize conflicts with businesses.

24. Can units be added for S inlets, grate inlets, X inlets and Type M manhole? Units are already provided for type L MH.

    All drainage inlets and manholes shall be paid per each (all depths) and pay item 621F-005 shall be deleted

25. The plans show the old 6" water line being abandoned. Does this need to be filled with flowable fill, removed, or just capped and abandoned in place. I see the pay item 260A-003 Cement Mortar Flowable Backfill 60 CYDS. If flowable fill is required, is the intention to pay that under this pay item, or is it a subsidiary?

    Refer to DWG 119-GENERAL UTILITY NOTES, PROJECT-SPECIFIC NOTE #7: "The existing water mains that are to be abandoned shall be paid under the "260A003 – Cement Mortar Flowable Backfill, Mix 4" Pay Item. The pipe shall be cut, plugged, and filled with flowable fill in accordance with ALDOT Specifications."

    For locations in which the water main being abandoned is in conflict with new construction work and has to be removed, refer to DWG 119-GENERAL UTILITY NOTES, PROJECT-SPECIFIC NOTE #6: "The existing water mains and sanitary sewer laterals that are to be removed and/or replaced shall be paid under the "206D030 – Removing Utility Lines" Pay Item. The Contractor shall receive approval from MAWSS prior to performing work under this Pay Item.

26. In regards the expected block by block phasing: I don't see a mainline 12" valve called out at every intersection on the plans, but should we assume that we will be paid for as many valves as it takes to perform the work in a block by block manner? Meaning, will we be paid for every extra valve, tee, tap etc. that will be required to complete the work this way, even if they are temporary?

Yes. Quantities will be revised in addenda to account for the block-by-block construction sequencing required for this project even though they are not shown on the plans.

27. On the sewer conflict box detail, it shows casing pipe for the sewer line. It doesn't seem that his quantity is included in the pay items. Should we include a piece of Steel casing with every Sewer Conflict box or will MAWSS want a 6" DI lateral to be used in these boxes. If so, we need a pay item for that, or we need to know if we need to incorporate that in the conflict box price.

    The steel casing shall be included in the Unit Bid Price for 645Q500 – Conflict Junction Box – per EACH (EA).

    Refer to Special Provisions:

    "Section 645.04 – Method of Measurement

    (r) Conflict Junction Box
    Conflict box will be measured per each one complete unit of the box to allow for the crossing of the storm pipe and the sanitary sewer that conflict as detailed in the project plans including the base, walls, concrete for the invert mound, frame and cover and all other incidentals required for a complete box."

    "Section 645.05 – Basis of Payment

    19. Conflict Junction Box

    The following paragraph shall be added:

    Payment for the conflict box shall include the complete box as detailed in the project plans, all dewatering, concrete, foundation, and coordination with the Engineer for the site-specific conditions."

28. Will all new pipe and culvert sections need to be videoed for acceptance?

    Yes

29. Who will be performing CE&I?

    Neel-Schaffer

30. Where will the Foundation Backfill Local and Foundation Backfill Commercial be used?

    Foundation backfill (local and commercial) will be used in circumstances where additional structure excavation is needed beyond limits shown in project details.

31. Structure Excavation and borrow fill for newly installed drainage pipe and boxes is to be included in the pipe or box pricing?

    Yes, as per project details.

32. Will "Mill Tie-in" at Side streets be paid under "Planing Existing Pavement"?

    Yes

33. On Sheet 2J Note 20, please explain how we are to reuse Aggregate Surfacing. The material will be used in a temporary state and majority of the time will not be salvageable for reuse. It will be pushed into subgrade and dirt will be mixed into it. Locations where aggregate surfacing is required all aggregate surfacing shall remain in place and will not be re-used or salvaged

34. Will a separate pay item be setup for "Solid Sod, Centipede" as shown on the Landscaping Plan? Or is the 654A001 pay item for this work?

    Item 654A-001 will be used to pay for all types of sod as shown in the landscaping plan.

35. Will LDs be based on the 2022 spec book or the amended special provision dated 12/5/2022 and effective date of 1/1/2023?

    They will be based on 1/1/23 provision. See page 251.

36. Can the utility subcontractor install new utilities through two (2) blocks so they can get out of the way and the Prime complete one block and be able to move to the second block without pulling off the job waiting for utility sub?

    The City will allow water main construction (excluding service connections and other tie ins) ahead of the individual block to block reconstruction sequence. Traffic control shall be taken to minimize disruptions and coordinated/approved by the City. Special care should be taken to minimize conflicts with businesses.

37. When it comes to asphalt Wearing Surface, can we wait to complete 4-6 blocks before placing the final wearing surface so there will not be a joint at every block?

    The City would prefer to minimize joints on the surface layer. This can be coordinated.

38. For pay item “Watering”, on the bid sheet is shows 800 K GAL but on sheet 88 it shows it as 800 GAL. Which unit of measure is correct?

    80k Gallons, as shown in the proposal, is the proper quantity.

39. Is a CPM schedule with monthly updates required for this project?

    A CPM schedule will be required as part of the contractor’s monthly estimate documentation requirements to be paid.

40. Sheet 2J, Note 12 states all removed/replaced items are to be returned to the City for salvage. Historically, due to the age of the system in that area, bolts will not break free, and components must be cut up for transport. Is the intent to reuse the assets removed or can they be cut as necessary for transport to the City?

    It is the intent of the City to re-use assets.

MOBILE
ALABAMA

# Innovating St. Louis Street: Pre-Bid Meeting
## June 4, 2025
## Sign-In Sheet

| Name (Please print) | Company/Org | E-mail | Phone | Received all handouts? (please sign) |
|---|---|---|---|---|
| THOMAS BRYMER | VOLKERT | THOMAS.BRYMER@VOLKERT.COM | 678-579-6315 | |
| Chris Pochin | JPlott | CDochin@JPlott.com | 205 388 6067 | |
| ANTHONY FRESOLONE | NEEL-SCHAFFER | ANTHONY.FRESOLONE@NEEL-SCHAFFER.COM | 251-581-0248 | |
| Claritza Martinez | Neel-schaffer | claritza.martinez@neel-schaffer.com | 251-233-0760 | |
| JOHN MCLAUGHLIN | APAC ALABAMA | john.mclaughlin@apac.alabama | 251-490-7602 | |
| KEN DONOGHUE | APAC ALABAMA | KEN.DONOGHUE@APAC.COM | 251-342-3025 | |
| RUSTY LOMAX | MAWSS | RLOMAX@MAWSS.COM | 251-591-7130 | |
| Bradley McLaughlin | Gibson Construction | | 251-505-8330 | |
| Michael Gibson | Gibson Construction | michael@gibsonconstructionllc.com | 251-421-0828 | |
| BJ SELLERS | DIVERSIFIED EROSION & DEV | bjsellers@gulf-pride.com | 2286694730 | |

MOBILE
ALABAMA

# Innovating St. Louis Street: Pre-Bid Meeting
## June 4, 2025
## Sign-In Sheet

| Name (Please print) | Company/Org | E-mail | Phone | Received all handouts? (please sign) |
|---|---|---|---|---|
| Brien Martin | JubileeScape | brien@jubileescape.com | 251-626-5587 | |
| Jeremy Pilgrim | Jubilescape | JEREMY P@JUBILEESCAPE.COM | 2514877868 | |
| Aaron Godwin | CLS | Aaron@cls-midway.com | 251 214 5322 | |
| Chad Tubbs | Ferguson | chad.tubbs@ferguson.com | 251 622 8760 | |
| Shaun Stapleton | MAC / Wiregrass | sstapleton@wiregrassconstruction.com | 251-408-0770 | |
| Chandler Owens | MAC/Wiregrass | Chaowens@wiregrassconstruction.com | 251-583-1925 | |
| Walker Chandler | Rob Middleton Const | Tom@RM-CONST.COM | 251-328-6364 | |
| Jennings Clayton | McElhenney Const. | jennings@mcelhenneyconst.com | 251-654-8579 | |
| Drew Windham | McElhenney Const. | drew@mcelhenneyconst.com | 228-217-7761 | |
| Leah Martin | Fortress Construction | Fortressconstruction@aol.com | 253-334-2980 | |

# Innovating St. Louis Street: Pre-Bid Meeting
## June 4, 2025
## Sign-In Sheet

| Name (Please print) | Company/Org | E-mail | Phone | Received all handouts? (please sign) |
|---|---|---|---|---|
| Ryan Turner | Frank Turner Co. | DebbieatFtconst.com | 251-422-9881 | |
| Grant Nichols | GNC | grant@gn-const.com | 251-406-3324 | |
| Lee Thornton | LTK Contracting | leethornton80@yahoo.com | 2515835191 | |
| Brent Gordon | MBWSS | bgordon@mbwss.com | 251 454 0247 | |
| Jeff Carter | Figure Coast Dev | JeffsC4-Builds.com | 2516048985 | |
| Chris McGough | UR Mitchell | chris@urmitchell.net | 251-366-6949 | |
| Tiffany Black | L+G Industries | landgconcretedispatch@gmail | 251-654-6042 | |
| LEE REACH | INLAND | LREACH@INLAND.COM | 251-510-4413 | |
| Frank Turner | Frank Turner Co. | Frankt@Ftconst.com | 251-422-9877 | |
| Jim Poore | Jeremy Hunt | Jim@JhuntGC.com | 251-225-5920 | |

# Innovating St. Louis Street: Pre-Bid Meeting
## June 4, 2025
## Sign-In Sheet

| Name (Please print) | Company/Org | E-mail | Phone | Received all handouts? (please sign) |
|---|---|---|---|---|
| Archie Todd | COM | archie.todd@cityofmobile.org | (251)208-7967 | |
| Emma Cochran | COM | | | |
| Kelsi Tippery | COM | | | |
| Jake Clements | COM | | | |
| CODY REED | COM | cody.reed@cityofmobile.org | 251-208-7689 | |
| | | | | |
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| | | | | |
| | | | | |

# ATTACHMENT "A"

**SUMMARY OF QUANTITIES**

**ST. LOUIS STREET DEVELOPMENT**
(VOLKERT CONTRACT NO. 1025603)

**ADDENDUM 1**
**6/9/2025**

| ITEM NO. | ITEM DESCRIPTION | UNIT | ESTIMATED QUANTITY |
|---|---|---|---|
| 206D030 | REMOVING UTILITY LINES | LF | 1,800 |
| 260A003 | CEMENT MORTAR FLOWABLE BACKFILL, MIX 4 | CY | 60 |
| 641A514 | 1-INCH COPPER WATER SERVICE LINE LAID | LF | 500 |
| 641A518 | 2-INCH COPPER WATER SERVICE LINE LAID | LF | 1,300 |
| 641A540 | 3-INCH POLYETHYLENE WATER SERVICE LINE LAID | LF | 300 |
| 641A618 | 12-INCH DUCTILE IRON WATER MAIN LAID | LF | 120 |
| 641A682 | 6-INCH DUCTILE IRON WATER MAIN LAID (RESTRAINED JOINT) | LF | 520 |
| 641A684 | 8-INCH DUCTILE IRON WATER MAIN LAID (RESTRAINED JOINT) | LF | 50 |
| 641A688 | 12-INCH DUCTILE IRON WATER MAIN LAID (RESTRAINED JOINT) | LF | 800 |
| 641A692 | 16-INCH DUCTILE IRON WATER MAIN LAID (RESTRAINED JOINT) | LF | 70 |
| 641A752 | 12-INCH PVC WATER MAIN LAID | LF | 500 |
| 641A776 | 6-INCH PVC WATER MAIN LAID (RESTRAINED JOINT) | LF | 895 |
| 641A778 | 8-INCH PVC WATER MAIN LAID (RESTRAINED JOINT) | LF | 130 |
| 641A782 | 12-INCH PVC WATER MAIN LAID (RESTRAINED JOINT) | LF | 3,240 |
| 641A784 | 16-INCH PVC WATER MAIN LAID (RESTRAINED JOINT) | LF | 100 |
| 641C500 | DUCTILE IRON FITTINGS | LB | 52,430 |
| 641D500 | FIRE HYDRANT | EA | 10 |
| 641E500 | FIRE HYDRANT RESET | EA | 9 |
| 641J516 | 6-INCH GATE VALVE WITH BOX | EA | 14 |
| 641J522 | 12-INCH GATE VALVE WITH BOX | EA | 45 |
| 641L500 | CONCRETE FOR WATER MAINS (THRUST BLOCKS) | CY | 110 |
| 641M512 | 6-INCH RETAINER GLAND | EA | 260 |
| 641M514 | 8-INCH RETAINER GLAND | EA | 25 |

| ITEM NO. | ITEM DESCRIPTION | UNIT | ESTIMATED QUANTITY |
|---|---|---|---|
| 641M518 | 12-INCH RETAINER GLAND | EA | 400 |
| 641M522 | 16-INCH RETAINER GLAND | EA | 35 |
| 641N510 | 6-INCH X 6-INCH ANCHOR TEE | EA | 5 |
| 641N540 | 12-INCH X 6-INCH ANCHOR TEE | EA | 9 |
| 641O514 | 6-INCH X 6-INCH TAPPING VALVE AND SLEEVE | EA | 25 |
| 641O596 | 16-INCH X 16-INCH TAPPING VALVE AND SLEEVE | EA | 2 |
| 641P520 | 1-INCH SERVICE TAP | EA | 15 |
| 641Q515 | 1-INCH WATER METER AND BOX SET | EA | 15 |
| 641R515 | 1-INCH WATER METER AND BOX RESET | EA | 6 |
| 641P530 | 2-INCH SERVICE TAP | EA | 60 |
| 641Q520 | 2-INCH WATER METER AND BOX SET | EA | 50 |
| 641R520 | 2-INCH WATER METER AND BOX RESET | EA | 10 |
| 641S500 | VALVE BOX RESET | EA | 20 |
| 641T510 | 6-INCH LINE STOP | EA | 50 |
| 641T512 | 8-INCH LINE STOP | EA | 5 |
| 641T516 | 12-INCH LINE STOP | EA | 2 |
| 641T520 | 16-INCH LINE STOP | EA | 2 |
| 645E524 | 6-INCH PVC STACKS AND LATERALS | LF | 500 |
| 645K500 | MANHOLE FRAME AND COVER RESET | EA | 35 |
| 645Q300 | SANITARY SEWER CONFLICT (CONCRETE PIER SADDLE SET) | EA | 5 |
| 645Q400 | SANITARY SEWER CONFLICT (COEXISTENCE JUNCTION BOX) | EA | 5 |
| 645Q500 | SANITARY SEWER CONFLICT (CONFLICT JUNCTION BOX) | EA | 10 |
| 649A535 | 12-INCH STEEL ENCASEMENT PIPE, TYPE 1 INSTALLATION | LF | 10 |
| 649A555 | 20-INCH STEEL ENCASEMENT PIPE, TYPE 1 INSTALLATION | LF | 36 |
| 649A560 | 24-INCH STEEL ENCASEMENT PIPE, TYPE 1 INSTALLATION | LF | 20 |

# ATTACHMENT B

## SUMMARY OF QUANTITIES

| ITEM NO. | ITEM DESCRIPTION | UNIT | ESTIMATED QUANTITY |
|---|---|---|---|
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| 641A540 | 3-INCH POLYETHYLENE WATER SERVICE LINE LAID | LF | 300 |
| 641A618 | 12-INCH DUCTILE IRON WATER MAIN LAID | LF | 120 |
| 641A682 | 6-INCH DUCTILE IRON WATER MAIN LAID (RESTRAINED JOINT) | LF | 520 |
| 641A684 | 8-INCH DUCTILE IRON WATER MAIN LAID (RESTRAINED JOINT) | LF | 50 |
| 641A688 | 12-INCH DUCTILE IRON WATER MAIN LAID (RESTRAINED JOINT) | LF | 800 |
| 641A692 | 16-INCH DUCTILE IRON WATER MAIN LAID (RESTRAINED JOINT) | LF | 70 |
| 641A752 | 12-INCH PVC WATER MAIN LAID | LF | 500 |
| 641A776 | 6-INCH PVC WATER MAIN LAID (RESTRAINED JOINT) | LF | 895 ⚠ |
| 641A778 | 8-INCH PVC WATER MAIN LAID (RESTRAINED JOINT) | LF | 130 |
| 641A782 | 12-INCH PVC WATER MAIN LAID (RESTRAINED JOINT) | LF | 3,240 ⚠ |
| 641A784 | 16-INCH PVC WATER MAIN LAID (RESTRAINED JOINT) | LF | 100 |
| 641C500 | DUCTILE IRON FITTINGS | LB | 52,430 ⚠ |
| 641D500 | FIRE HYDRANT | EA | 10 |
| 641E500 | FIRE HYDRANT RESET | EA | 9 |
| 641J516 | 6-INCH GATE VALVE WITH BOX | EA | 14 |
| 641J522 | 12-INCH GATE VALVE WITH BOX | EA | 45 ⚠ |
| 641L500 | CONCRETE FOR WATER MAINS (THRUST BLOCKS) | CY | 110 |
| 641M512 | 6-INCH RETAINER GLAND | EA | 260 |
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|---|---|---|---|
| 641M518 | 12-INCH RETAINER GLAND | EA | 400 |
| 641M522 | 16-INCH RETAINER GLAND | EA | 35 |
| 641N510 | 6-INCH X 6-INCH ANCHOR TEE | EA | 5 |
| 641N540 | 12-INCH X 6-INCH ANCHOR TEE | EA | 9 |
| 641O514 | 6-INCH X 6-INCH TAPPING VALVE AND SLEEVE | EA | 25 ⚠ |
| 641O596 | 16-INCH X 16-INCH TAPPING VALVE AND SLEEVE | EA | 2 |
| ⚠ 641P520 | 1-INCH SERVICE TAP | EA | 15 |
| ⚠ 641Q515 | 1-INCH WATER METER AND BOX SET | EA | 15 |
| ⚠ 641R515 | 1-INCH WATER METER AND BOX RESET | EA | 6 |
| 641P530 | 2-INCH SERVICE TAP | EA | 60 |
| 641Q520 | 2-INCH WATER METER AND BOX SET | EA | 50 |
| 641R520 | 2-INCH WATER METER AND BOX RESET | EA | 10 |
| 641S500 | VALVE BOX RESET | EA | 20 |
| 641T510 | 6-INCH LINE STOP | EA | 50 ⚠ |
| 641T512 | 8-INCH LINE STOP | EA | 5 |
| 641T516 | 12-INCH LINE STOP | EA | 2 |
| 641T520 | 16-INCH LINE STOP | EA | 2 |
| 645E524 | 6-INCH PVC STACKS AND LATERALS | LF | 500 |
| 645K500 | MANHOLE FRAME AND COVER RESET | EA | 35 |
| 645Q300 | SANITARY SEWER CONFLICT (CONCRETE PIER SADDLE SET) | EA | 5 |
| 645Q400 | SANITARY SEWER CONFLICT (COEXISTENCE JUNCTION BOX) | EA | 5 |
| 645Q500 | SANITARY SEWER CONFLICT (CONFLICT JUNCTION BOX) | EA | 10 |
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| 649A555 | 20-INCH STEEL ENCASEMENT PIPE, TYPE 1 INSTALLATION | LF | 36 |
| 649A560 | 24-INCH STEEL ENCASEMENT PIPE, TYPE 1 INSTALLATION | LF | 20 |

PROJECT NO.: 1025603
DRAWING NO.: 120

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| ⚠ | 6/9/2025 | ADDENDUM NO. 1 | TGB |

REVISIONS

MAWSS
MOBILE AREA WATER AND SEWER SYSTEM

PROJECT NAME: ST. LOUIS STREET DEVELOPMENT

SHEET NAME: SUMMARY OF QUANTITIES

VOLKERT

ALABAMA LICENSED No. 39287 PROFESSIONAL ENGINEER THOMAS GREGORY BRYMER

| DESIGNED: TGB | CHECKED: MYO |
|---|---|
| DRAWN: TGB | CHECKED: MYO |
| DATE: 07/25/2024 | |
| PROJECT NO.: 1025603 | |
| SHEET NO.: 120 | |

Plot Scale=0.999998in.
User Is: vlktpw12-pw-svc
$$vlktpw12csd01$CS_pdf_work.dlr#63470$18803_74$120.Summary of Quantities.dgn
25-JUN-2025 09:19
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## GENERAL NOTES

1. ALL WATER AND SANITARY SEWER WORK ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE BOARD OF WATER AND SEWER COMMISSIONERS OF THE CITY OF MOBILE, ALABAMA (HEREIN REFERRED TO AS "THE BOARD) "STANDARD SPECIFICATIONS FOR WATER MAINS, SANITARY SEWERS AND SEWAGE PUMPING STATIONS", ADOPTED MAY 2012, AND AS AMENDED IN THE PROJECT SPECIFICATIONS AND CONTRACT PLANS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY, EFFICIENCY, AND ADEQUACY OF HIS OPERATION AND SHALL INITIATE HIS OWN SAFETY PROGRAM. THE CONTRACTOR SHALL COMPLY WITH ALL DEPARTMENT OF LABOR, SAFETY AND HEALTH REGULATIONS AS SPECIFIED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED, AND THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT.

3. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW AND COMPLY WITH ALL NOTES WITHIN THE PROJECT PLANS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND COMPLY WITH TESTING REQUIRED BY THE LOCAL GOVERNING AGENCIES IN ADDITION TO THE TESTING REQUIREMENTS OUTLINED IN THE TECHNICAL SPECIFICATIONS.

5. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF THE REQUIRED CONSTRUCTION CAN BE PERFORMED WITHIN THE AREA PROVIDED AND COMPLY WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) FOR CONSTRUCTION PROJECTS OF THIS TYPE. ANY SAFETY MEASURES OR METHOD OF CONSTRUCTION THAT IS NECESSARY IN THE CONSTRUCTION OF THIS PROJECT TO COMPLY WITH THESE REGULATIONS IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE PROVIDED WITH ALL COSTS TO BE INCLUDED IN THE VARIOUS PAY ITEMS OF THE CONTRACT (NO DIRECT PAYMENT).

6. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF THE LOCATIONS SHOWN ARE CORRECT AND TO DETERMINE IF THERE ARE ADDITIONAL LINES THAT ARE NOT SHOWN ON THE PLANS. ALSO, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL UTILITY LINES DURING CONSTRUCTION WITH NO ADDITIONAL COMPENSATION. HOWEVER, THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITY OWNER FOR ANY LINES THAT MAY CONFLICT WITH CONSTRUCTION AND THEY WILL MAKE THE ADJUSTMENTS NECESSARY (IN THE OPINION OF THE ENGINEER) AT NO EXPENSE TO THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL UTILITY ADJUSTMENTS, AND THERE WILL BE NO ADDITIONAL COMPENSATION FOR THIS COORDINATION, OR ANY DELAYS RESULTING FROM UTILITY ADJUSTMENTS. FOR UTILITY LOCATION SERVICE, THE CONTRACTOR SHALL CALL 1-800-292-8525 AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY OWNER FOR THE COORDINATION OF ANY UTILITIES REQUIRING RELOCATION. THE ENGINEER RESERVES THE RIGHT TO ADJUST REQUIRED WATER MAINS TO AVOID EXISTING UTILITIES LOCATED BY THE CONTRACTOR.

7. ALL PROPERTY AND RIGHT-OF-WAY LINE LOCATIONS SHOWN ARE APPROXIMATE. PROJECT REQUIRED RIGHT-OF-WAY LINES SHALL BE VERIFIED BY THE CONTRACTOR AS REQUIRED. PROJECT REQUIRED EASEMENTS SHALL BE LOCATED BY THE CONTRACTOR USING REFERENCES AS NOTED ON THE CONSTRUCTION PLANS. ALL PROPERTY LINE MARKERS (IRON PINS, CONCRETE MONUMENTS, ETC.) DESTROYED DURING CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF ALABAMA TO RESET PROPERTY MARKERS. THE COST FOR THIS WORK SHALL BE INCLUDED IN OTHER ITEMS OF WORK. (NO DIRECT PAYMENT)

8. CONTRACTOR SHALL MAINTAIN ACCESS TO BUSINESSES AND RESIDENCES DURING ALL PHASES OF CONSTRUCTION.

9. THE CONTRACTOR SHALL, AT ALL TIMES, GAIN PERMISSION FROM THE ENGINEER AND THE APPROPRIATE TRAFFIC ENGINEER FOR ANY PROPOSED CONSTRUCTION THAT WILL AFFECT TRAFFIC ON ANY STREET. AFTER GAINING PERMISSION FROM THE ENGINEER, THE CONTRACTOR SHALL REQUEST IN WRITING TO THE TRAFFIC ENGINEER, AT LEAST TWO (2) DAYS PRIOR TO THE START OF CONSTRUCTION, FOR PERMISSION TO PROCEED WITH THE CONSTRUCTION. THE CONTRACTOR SHALL NOT START SAID CONSTRUCTION UNTIL PERMISSION IS RECEIVED AND ALL WARNING SIGNS, BARRICADES AND OTHER REQUIRED CONVENIENCES AND SAFETY DEVICES REQUIRED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART VI, 1988 EDITION, REVISION 3 HAVE BEEN INSTALLED AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL, AT ALL TIMES, MAINTAIN AT LEAST ONE LANE OF TRAFFIC ON THE STREET WHERE WATER MAINS ARE BEING LAID. THE CONTRACTOR SHALL PROVIDE THE NECESSARY "EXPERIENCED FLAGMAN" TO DIRECT TRAFFIC (NO DIRECT PAYMENT).

10. THE CONTRACTOR SHALL NOTE THAT ALL WORK PERFORMED WITHIN PUBLIC OR PRIVATE RIGHT-OF-WAY OR EASEMENT AS ASSOCIATED WITH THE CONSTRUCTION OF THE NEW WATER MAINS SHALL BE SUBJECT TO EROSION CONTROL PREVENTION TO PROTECT THE STABILITY OF ALL ROADS, STREETS, AND DRIVEWAYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE WORK AREA AT ALL TIMES DURING CONSTRUCTION. ALL WORK AND SITE RESTORATION SHALL BE GUARANTEED AS DEFINED IN THE SPECIFICATIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGE WHICH OCCURS TO ALL ROADWAYS, STREETS, AND DRIVEWAYS WHICH ARE A RESULT OF CONSTRUCTION ACTIVITY ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL NOT BE REIMBURSED FOR ANY ADDITIONAL WORK ASSOCIATED WITH RESTORATION AND MAINTENANCE OF THE WORK AREA DURING THE CONSTRUCTION AND/OR GUARANTEE PERIOD AS DEFINED IN THE SPECIFICATIONS.

11. SHOULD THE CONTRACTOR ELECT TO OBTAIN AREAS FOR THE PURPOSE OF STORING MATERIALS AND EQUIPMENT OR FOR CONDUCTING HIS WORK OPERATIONS, HE SHALL FURNISH THE OWNER AND ENGINEER A COPY OF THE AGREEMENT BETWEEN HIM AND THE OWNER OF THE PROPERTY PRIOR TO USING THE AREA (NO DIRECT PAYMENT). ANY CURB AND GUTTER, SIDEWALK, DRIVEWAY, ETC., DAMAGED BY THE CONTRACTOR WHEN HAULING MATERIALS OR MOVING EQUIPMENT IN OR OUT FROM THIS STORAGE AREA SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

## GENERAL NOTES CONT'D

12. THE BOARD SHALL RETAIN OWNERSHIP OF ALL SALVAGEABLE WATER AND SEWER MATERIAL REMOVED FROM THE PROJECT. THE CONTRACTOR SHALL NEATLY STORE THESE MATERIALS AT LOCATIONS DESIGNATED BY THE OWNER. THE COST OF REMOVING AND STORING THESE MATERIALS AS DIRECTED WILL BE BORNE BY THE CONTRACTOR WITH NO DIRECT PAYMENT. ANY MATERIAL DEEMED UNSALVAGEABLE BY THE ENGINEER OR THAT IS NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE WORK SITE FOR NO ADDITIONAL COMPENSATION.

13. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE AND UNSUITABLE MATERIAL (INCLUDING BUT NOT LIMITED TO THE REMOVAL OF EXISTING PAVEMENT, CURB AND GUTTER, AND SIDEWALK) IN AN ACCEPTABLE MANNER OFF THE PROJECT SITE AT A SITE (LOCATED ABOVE MEAN HIGH WATER ELEVATION) FURNISHED BY THE CONTRACTOR. THERE WILL BE NO ADDITIONAL COMPENSATION FOR EITHER USING THE WASTE MATERIAL AS DIRECTED OR FOR DISPOSING OF IT OFF THE PROJECT SITE.

14. ALL EXISTING BUILDINGS LOCATED WITHIN THE TEMPORARY OR PERMANENT EASEMENTS, EXCEPT THOSE NOTED ON THE PLANS TO BE REMOVED, SHALL BE LEFT IN PLACE. ANY DAMAGE TO THESE BUILDINGS BY THE CONTRACTOR'S OPERATIONS SHALL BE REMEDIED AT THE CONTRACTOR'S EXPENSE.

15. ALL DISTURBED STREETS AND DRIVEWAYS SHALL BE REPLACED IN KIND AS NOTED ON PLANS, EXCEPT GRADED DRIVEWAYS. GRADED DRIVEWAYS SHALL BE REPLACED WITH CRUSHED STONE SURFACING.

16. WHERE WATER MAINS ARE LAID IN LAWNS, MEDIAN STRIPS, ETC., IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE EXISTING SOD, PLANTS, SHRUBS, ETC., AND STORE IN SUCH A MANNER AS TO PRESERVE SAME. AFTER LAYING WATER MAIN, THE CONTRACTOR SHALL REPLACE ALL SOD, SHRUBS, ETC., TO THEIR ORIGINAL POSITION. ANY SOD OR PLANTS LOST OR DAMAGED BY REMOVAL SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTE THAT THE PAY ITEM SOLID SOD IS INTENDED ONLY FOR USE AS DITCH CHECKS AND AREAS REQUIRING EROSION CONTROL AS DIRECTED BY THE ENGINEER. ALL OTHER SODDING REQUIRED TO RETURN EASEMENT AREAS TO PRE-CONSTRUCTION CONDITION SHALL BE INCLUDED IN OTHER RELATED BID PRICES AS NO DIRECT PAYMENT WILL BE MADE FOR SODDING IN THESE AREAS IN ACCORDANCE WITH THE BOARD'S STANDARD SPECIFICATIONS.

17. ANY EXISTING CULVERT OR PIPE IN THE CONSTRUCTION AREA TO REMAIN SHALL BE CLEARED OF ANY FILL OR DEBRIS, FROM HIS CONSTRUCTION OPERATIONS, TO THE EXISTING FLOW LINE WITH NO DIRECT PAYMENT. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE VARIOUS CONTRACT PAY ITEMS.

18. ONLY PLANS ISSUED BY THE OWNER AND BIDS SUBMITTED UPON THE STANDARD FORM FURNISHED BY THE OWNER ARE ACCEPTABLE. PLAN CONTENT, SCALE AND LEGIBILITY MAY BE ALTERED BY REPRODUCTION BY THE INDIVIDUALS OTHER THAN THE OWNER OR VOLKERT, INC. THE OWNER AND VOLKERT CANNOT VERIFY OR BE RESPONSIBLE FOR THE ACCURACY OF PLANS REPRODUCED BY OTHERS.

19. THE OWNER RESERVES THE RIGHT TO DELETE ANY BID ITEM OR ITEM OF WORK. NO ADJUSTMENT WILL BE MADE TO THE OTHER BID ITEM PRICES DUE TO THESE REVISIONS.

20. FOLLOWING FINAL ACCEPTANCE OF THIS PROJECT, THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A COMPLETE SET OF "AS-BUILT" PLANS SHOWING ACTUAL QUANTITIES, LOCATION AND VALVE REFERENCES. THE ENGINEER WILL FURNISH THE CONTRACTOR AN "ISSUED FOR CONSTRUCTION" SET OF DRAWINGS TO BE USED FOR THIS PURPOSE.

21. ALL PIPES 16 INCHES AND LARGER SHALL HAVE MINIMUM COVER OF 48 INCHES, AND PIPES SMALLER THAN 16 INCHES SHALL HAVE A MINIMUM COVER OF 30 INCHES, EXCEPT WHERE OTHERWISE NOTED ON THE PLANS. AT STREET INTERSECTIONS OR WHERE THE NEW PIPELINE CROSSES EXISTING OR PROPOSED UNDERGROUND LINES AT THE APPROXIMATE SAME DEPTH AS THE NEW LINE THE COVER SHALL BE INCREASED AND THE NEW LINE LAID BELOW THE EXISTING OR PROPOSED PIPELINES. WHERE THE NEW PIPELINE CROSSES EXISTING OR PROPOSED DITCHES, THE TOP OF THE PIPE SHALL BE A MINIMUM OF 36 INCHES BELOW THE EXISTING OR PROPOSED INVERT OF THE DITCH, WHICHEVER IS LOWER, EXCEPT WHERE NOTED ON THE PLANS.

22. A MINIMUM HORIZONTAL DISTANCE OF FIVE (5) FEET SHALL BE MAINTAINED BETWEEN ALL WATER MAINS AND SANITARY SEWER LINES. IN LOCATIONS WHERE WATER MAINS MUST CROSS SANITARY SEWER TRUNK LINES, THE SEWER MAIN SHALL BE LAID AT SUCH ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS 18 INCHES ABOVE THE TOP OF THE SANITARY SEWERS. THIS VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN FIVE FEET HORIZONTALLY OF THE SEWER LINE.

23. THE CONTRACTOR SHALL EXPLORE AHEAD A MINIMUM OF 200 FEET SO ADJUSTMENTS CAN BE MADE IN THE ALIGNMENT OF THE PIPE, IF NECESSARY, IN CASE OF UNKNOWN CONFLICTS WITH EXISTING STRUCTURES, UTILITIES, AND/OR PIPING.

24. IF NECESSARY, THE CONTRACTOR SHALL USE TEMPORARY SHEETING OR TRENCH BOXES TO MINIMIZE THE SIZE OF THE EXCAVATIONS AND THE PROJECT ADJACENT EXISTING ROADWAYS, UTILITIES, AND OTHER FACILITIES. THERE SHALL BE NO ADDITIONAL COST TO THE OWNER UNLESS THE CONTRACTOR IS DIRECTED TO LEAVE THE SHEETING IN PLACE.

25. THE CONTRACTOR SHALL BACKFILL ALL TRENCHES AT THE END OF EACH DAY'S WORK. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT. THE ENDS OF ALL PIPE SHALL BE PLUGGED AT THE CLOSE OF EACH DAY'S WORK.

26. AT NO TIME WILL A VALVE OF THE EXISTING WATER SYSTEM BE OPERATED WITHOUT THE PRESENCE AND AUTHORIZATION OF AN AUTHORIZED EMPLOYEE OF THE OWNER.

27. WHEN DIRECTED BY THE ENGINEER, DUCTILE IRON PIPE, FITTINGS, VALVES, AND APPUTENANCES SHALL BE WRAPPED IN POLYETHYLENE SHEATHING. SHEATHING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE UNLESS A UNIT PRICE PAY ITEM IS PROVIDED.

## GENERAL NOTES CONT'D

28. WHERE THE PLANS REQUIRE THE PROPOSED WATER MAINS OR SANITARY SEWER TO CONNECT TO EXISTING, THE CONTRACTOR SHALL PLAN AND EXECUTE HIS WORK SO THAT THE WATER OR SEWER SERVICE WILL NOT BE INTERRUPTED.

29. DURING REMOVAL AND REPLACEMENT OF SANITARY SEWER MAINS OR LATERALS OR CONNECTIONS TO EXISTING SANITARY SEWER MAINS, THE CONTRACTOR SHALL PROVIDE SUFFICIENT PUMPING CAPACITY TO BYPASS THE SECTION OF PIPE WHICH IS OUT OF SERVICE. PAYMENT WILL BE INCLUDED IN OTHER RELATED BID ITEMS.

30. THRUST CALCULATIONS ASSUME 20 FEET OF PIPE LENGTHS. WHEN THE CONTRACTOR ELECTS TO USE SHORTER PIPE LENGTHS WHERE RESTRAINED JOINTS ARE REQUIRED, THE ADDITIONAL JOINT RESTRAINTS SHALL BE AT THE CONTRACTOR'S EXPENSE.

31. EACH FITTING ON THE PROPOSED WATER MAIN IS TO BE RESTRAINED PER THE THRUST RESTRAINT CHART, PROVIDED IN THE DETAIL SHEETS, WITH THE APPROPRIATE RESTAINT GLANDS.

32. CONTRACTORS ARE REQUIRED TO CONSIDER THE SERVICES OF MINORITY AND DISADVANTAGED BUSINESSES WHEN COMPETENT FIRMS ARE AVAILABLE. CONTRACTORS MAY CONTACT MAWSS, THE UNIVERSITY OF SOUTH ALABAMA SMALL BUSINESS CENTER, OR THE MOBILE MINORITY BUSINESS DEVELOPMENT CENTER FOR ASSISTANCE IN IDENTIFYING POTENTIAL FIRMS. CONTRACT REQUIREMENTS FOR MINORITY BUSINESS ENTERPRISES, OR WOMEN BUSINESS ENTERPRISES SHALL BE STATED IN THE CONTRACT SPECIFICATIONS.

33. ALL CONSTRUCTION PERFORMED WITHIN THE EXISTING ALABAMA DEPARTMENT OF TRANSPORTATION (ALDOT) RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE ALDOT STANDARDS FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHT-OF-WAY GUIDELINES. IN ADDITION, THE CONTRACTOR SHALL PROVIDE TO ALDOT A PERFORMANCE BOND AND TRAFFIC CONTROL PLANS PRIOR TO THE START OF WORK. ALL PROPOSED WATER MAINS AND WATER AND SEWER SERVICES SHALL BE CONSTRUCTED TO AN ELEVATION THAT WILL AVOID EXISTING AND PROPOSED STRUCTURES AND DITCHES.

34. THE CONTRACTOR SHALL COORDINATE WITH THE MOBILE TREE COMMISSION REGARDING THE REMOVAL OF OR POTENTIAL DAMAGE TO ANY TREES LOCATED WITHIN THE PROJECT LIMITS.

## PROJECT-SPECIFIC NOTES

1. ALL EFFORT SHALL BE MADE FOR THE WATER MAIN TO BE INSTALLED ABOVE THE SANITARY SEWER. WHEN THE EXISTING CONDITIONS REQUIRE THE WATER MAIN TO BE INSTALLED UNDER THE SANITARY SEWER, THE WATER MAIN SHALL BE ENCASED IN STEEL PIPE. ⚠

2. WHERE THE WATER MAIN CROSSES UNDER THE STORM SEWER, THE PIPE MATERIAL SHALL BE DUCTILE IRON AND THE PIPE CENTERED BETWEEN JOINTS AT THE CROSSING.

3. ALL WATER MAINS PLACED WITHIN 8 FEET OF THE PAVEMENT SHALL HAVE A MINIMUM COVER OF 48 INCHES. ALL WATER MAINS PLACED AT A DISTANCE GREATER THAN 8 FEET FROM THE EDGE OF PAVEMENT SHALL HAVE A MINIMUM COVER OF 30 INCHES, AND A MINIMUM COVER OF 36 INCHES UNDER DITCHES.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING PIPE FROM FLOATING. IF THE PIPE FLOATS DURING CONSTRUCTION, THE CONTRACTOR SHALL RE-LAY THE PIPE TO GRADE AT HIS EXPENSE.

5. THE CONTRACTOR SHALL REVIEW THE PROPOSED ROADWAY AND DRAINAGE, AND OTHER PERTINENT ELEVATIONS TO ASSURE THE WATER MAINS AND WATER AND SEWER SERVICES ARE INSTALLED AT THE APPROPRIATE DEPTHS AND LOCATIONS TO AVOID CONFLICTS . ALL VALVES AND PIPES SHALL HAVE THE REQUIRED COVER AFTER ROADWAY WORK IS PERFORMED. ADDITIONALLY, ALL GATE VALVES SHALL HAVE A MIN. 12" COVER CENTERED AND EMBEDDED WITHIN A 36" CONCRETE COLLAR OVER THE OPERATING NUT.

6. THE EXISTING WATER MAINS AND SANITARY SEWER LATERALS THAT ARE TO BE REMOVED AND/OR REPLACED SHALL BE PAID UNDER THE "206D030 - REMOVING UTILITY LINES" PAY ITEM.

7. THE EXISTING WATER MAINS THAT ARE TO BE ABANDONED SHALL BE PAID UNDER THE "260A003 - CEMENT MORTAR FLOWABLE BACKFILL, MIX 4" PAY ITEM. THE PIPE SHALL BE CUT, PLUGGED, AND FILLED WITH FLOWABLE FILL IN ACCORDANCE WITH ALDOT SPECIFICATIONS.

8. THE CONTRACTOR SHALL DETERMINE THE PROPOSED DRAINAGE PIPE ELEVATIONS FROM THE ROADWAY PLANS PRIOR TO PLACING ANY PIPES OR SERVICE LINES TO ASSURE THAT THE REQUIRED WATER MAINS AND WATER AND SEWER SERVICE LINES DO NOT CONFLICT WITH THE PROPOSED DRAINAGE CONSTRUCTION.

9. ALL FITTINGS SHALL HAVE A CONCRETE THRUST BLOCK IN ACCORDANCE WITH ALDOT SPECIFICATIONS. THRUST BLOCK DETAILS ARE PROVIDED HEREIN.

10. EACH FITTING ON THE REQUIRED WATER MAIN IS TO BE RESTRAINED PER THE THRUST RESTRAINT DETAIL AND TABLE PROVIDED HEREIN AND WITH THE APPROPRIATE RETAINER GLAND.

11. OMITTED ⚠

12. INSERTION VALVES SHALL BE BY TEAM, INC., MUELLER CO., OR ENGINEER-APPROVED EQUAL. INSERTION VALVES SHALL BE PAID UNDER THE APPROPRIATE "641T - LINE STOP" PAY ITEM (SEE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL DETAILS).

13. THE "641A540 - 3-INCH POLYETHYLENE WATER SERVICE LINE LAID" PAY ITEM SHALL BE USED AS TEMPORARY WATER SERVICE DURING CONSTRUCTION ONLY. THE CONTRACTOR SHALL NOT INSTALL THIS SERVICE LINE WITHOUT FIRST REQUESTING AND RECEIVING AUTHORIZATION FROM THE ENGINEER AND MAWSS, PER INSTANCE FOR USE.

## PROJECT-SPECIFIC NOTES CONT'D

14. WHERE THE WATER MAIN OR SANITARY SEWER CROSSES 6" OR LESS UNDER THE PROPOSED STORM SEWER, THE STORM SEWER SHALL BE SUPPORTED WITH A CONCRETE PIER SADDLE SET. THE WATER OR SEWER MAIN SHALL BE DUCTILE IRON AND CENTERED BETWEEN JOINTS AT THE CROSSING LOCATION. THE CONCRETE PIER SADDLE SET DETAILS ARE PROVIDED HEREIN. PAYMENT FOR THIS ITEM SHALL BE UNDER THE "645Q300 - SANITARY SEWER CONFLICT (CONCRETE PIER SADDLE SET)" PAY ITEM.

15. WHERE THE EXISTING SANITARY SEWER CONFLICTS WITH THE LOWER QUARTER OF THE PROPOSED STORM PIPE, THE CROSSING SHALL BE MODIFIED WITHIN A COEXISTENCE JUNCTION BOX. THE SANITARY SEWER SHALL BE DUCTILE IRON AND CENTERED BETWEEN JOINTS AT THE CROSSING LOCATION. THE SANITARY SEWER SHALL BE FULLY ENCASED WITHIN THE CONCRETE OF THE BOX INVERT. THE INVERT SHALL BE MOUNDED TO ALLOW FOR SMOOTH FLOW OVER THE SANITARY SEWER. THE COEXISTENCE JUNCTION BOX DETAIL IS PROVIDED HEREIN AND SHALL BE PAID UNDER THE "645Q400 - SANITARY SEWER CONFLICT (COEXISTENCE JUNCTION BOX)" PAY ITEM.

16. WHERE THE EXISTING SANITARY SEWER CONFLICTS WITH THE PROPOSED STORM PIPE, THE CROSSING SHALL BE MODIFIED WITHIN A CONFLICT JUNCTION BOX. THE SANITARY SEWER SHALL BE DUCTILE IRON AND CENTERED BETWEEN JOINTS AT THE CROSSING LOCATION. EACH LOCATION SHALL BE REVIEWED WITH THE ENGINEER AND THE BEST ARRANGEMENT DETERMINED. THE CONFLICT JUNCTION BOX SHALL BE USED ONLY AFTER ALL OTHER OPTIONS HAVE BEEN EXHAUSTED. THE CONFLICT JUNCTION BOX DETAIL IS PROVIDED HEREIN AND SHALL BE PAID UNDER THE "645Q500 - SANITARY SEWER CONFLICT (CONFLICT JUNCTION BOX)" PAY ITEM.

17. WHERE A CONFLICT BOX AREA IS SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPLORE THE LOCATION AND TYPE OF POTENTIAL CONFLICT. THE CONTRACTOR SHALL REVIEW THE INFORMATION WITH THE OWNER TO DETERMINE NECESSITY, LOCATION, AND TYPE OF CONFLICT BOX REQUIRED TO BE INSTALLED. ⚠

18. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE ZINC COATED TO A MASS OF 200 g/m2 OF PIPE SURFACE CONFORMING TO ISO 8179 ALONG WITH AN APPROVED BITUMINOUS TOP COATING IN ACCORDANCE WITH MAWSS STANDARDS AND SPECIFICATIONS.

19. THE CONTRACTOR SHALL EXPECT TO HYDROEXCAVATE IN ANY WORK AREA LOCATED WITHIN THE CRITICAL ROOT ZONE OF CITY'S PROTECTED TREES. REFER TO THE CITY OF MOBILE'S TREE ROOT PROTECTION DETAIL ON SHEET 2G. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH PETER TOLER (251-288-7926) AT THE CITY OF MOBILE'S URBAN FORESTRY DEPARTMENT AT LEAST 48 HOURS IN ADVANCE OF WORK TO BE PERFORMED WITHIN THE CRITICAL ROOT ZONE.

20. THE ORIGINAL ISSUED FOR BID DRAWINGS DID NOT INCORPORATE A BLOCK-BY-BLOCK SEQUENCING FOR THE MAWSS WORK. QUANTITIES HAVE BEEN ADDED, PER ADDENDUM 1, TO ACCOUNT FOR THIS REVISED SEQUENCING BUT THE PLAN AND PROFILE SHEETS WERE NOT REVISED TO SHOW THESE ADDITIONAL CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO ENSURE PROPER TIE-INS.

## LEGEND (TYP. ALL SHEETS)

| DESCRIPTION | EXISTING | PROPOSED |
|---|---|---|
| WATER MAIN | — W — — — W — | WM |
| WATER METER | Ⓦ | Ⓦ |
| WATER SERVICE | ——— | ····· |
| WATER VALVE | ⋈ | ⋈ |
| SEWER MAIN | ——— | |
| SEWER MANHOLE | Ⓢ | Ⓢ |
| CONFLICT BOX AREA | | ▭ |

## ABBREVIATIONS

| | | | | | |
|---|---|---|---|---|---|
| BE | = | BURIED ELECTRIC | R&R | = | REMOVE AND REPLACE |
| BT | = | BURIED TELECOM | REQ'D | = | REQUIRED |
| DI | = | DUCTILE IRON | RJ | = | RESTRAINED JOINT |
| DIA. | = | DIAMETER | SD | = | STORM DRAIN |
| EX. | = | EXISTING | SS | = | SANITARY SEWER |
| MH | = | MANHOLE | STA. | = | STATION |
| MJ | = | MECHANICAL JOINT | TV&S | = | TAPPING VALVE AND SLEEVE |
| NG | = | NATURAL GAS | TYP. | = | TYPICAL |
| PR. | = | PROPOSED | WM | = | WATER MAIN |
| PVC | = | POLYVINYL CHLORIDE | | | |

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## SHEETS INDEX


| SHEET NO. | SHEET NAME |
|---|---|
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| 138 - 140 | CONSTRUCTION DETAILS |


PROJECT NO.: 1025603

DRAWING NO.: 119

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| ⚠ | 6/9/2025 | ADDENDUM NO. 1 | TGB |

REVISIONS

MAWSS
MOBILE AREA WATER AND SEWER SYSTEM

PROJECT NAME: ST. LOUIS STREET DEVELOPMENT

SHEET NAME: GENERAL UTILITY NOTES

VOLKERT

ALABAMA LICENSED No. 39287 PROFESSIONAL ENGINEER THOMAS GREGORY BRIMER

| DESIGNED: TGB | CHECKED: MYO |
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| DRAWN: TGB | CHECKED: MYO |
| DATE: 07/25/2024 | |
| PROJECT NO.: 1025603 | |
| SHEET NO.: 119 | |

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# ATTACHMENT D

Alabama Department of Transportation Standard Specifications for Highway Construction, 2022 Edition, SECTION 641 shall be revised as follows:

**SECTION 641**
**WATER LINE**

*SECTION 641 – WATER LINE* shall be amended to include the following:

**Section 641.01 – Description**

The following paragraphs shall be added:

"All water main related construction shall be in accordance with the standards and specifications of the Mobile Area Water and Sewer System, the Alabama Department of Transportation, applicable OSHA regulations, and local ordinances. The most stringent shall govern. Payment will be made according to the Alabama Department of Transportation Specifications, 2022 and as modified within these special provisions.

All water main related construction shall be in accordance with the MAWSS Standard Specifications Section 11 – Water Mains, Revised May 2021, and as included in their Appendix B – Water Line Construction Details, latest edition."

**Section 641.03 – Construction Requirements**

641.03(a) General

The following paragraph shall be added:

"Existing Water System: The Contractor shall protect, maintain, and keep in service all existing water lines and service connections during construction operations on the new water lines. Any existing lines cut or damaged shall be repaired immediately and the service restored on the existing lines."

641.03(a)1: Water Pipe

Revise the fifth paragraph to read:

"All ductile iron water pipe and fittings shall be zinc-coated to a mass of 200 $g/m^2$ of pipe surface conforming to ISO 8179 along with an approved bituminous top coating in accordance with MAWSS Standards and Specifications."

The following paragraphs shall be added:

"Restrained joint for ductile iron pipe shall be as specified in MAWSS Standard Specifications.

Where restrained joint fittings are required with PVC water pipe, ductile iron fittings shall be used in lieu of PVC and restrained joint retainer glands shall be required to restrain a minimum of one full joint of PVC to the ductile iron fitting."

641.03(a)3: Valves

The following paragraphs shall be added:

"Tapping sleeves and valves shall be in accordance with MAWSS Standard Specifications and shall be on the Board's list of approved materials and manufacturers.

Insertion valves shall be by Team or Mueller.

Curb stops where required or directed, shall be suitable for service piping, rated for 300 psi, and on the Board's list of approved materials and manufacturers."

641.03(a)4. Retainer Gland.

The following paragraph shall be added:

"Restraint retainer glands shall be manufactured by EBAA or approved equal."

641.03(a)7. Line Stop

This section shall include insertion valves by TEAM or Mueller.

641.03(c): Laying

The first sentence of the third paragraph shall be revised as follows:

"Water mains are required to maintain a minimum cover of 36 inches, unless noted otherwise."

641.03(e): Backfilling

Refer to Mobile Area Water and Sewer System's Standard Specifications Section 15 – Backfilling for all standards, requirements and incidentals.

**Section 641.04 – Method of Measurement**

641.04(n): Line Stop

This section shall also include insertion valves. Insertion valves will be measured per each installed, complete and in-place.

641.05(a)16: Line Stop

This section shall also include insertion valves and the following paragraph shall be added:

"An insertion valve and sleeve shall be paid for at the contract unit price which shall be payment for all labor, materials, equipment and incidentals necessary to purchase and install, prepare the site for installation which includes but not limited to excavation, bedding, coordination with the Owner and City, temporary sheeting or shoring, dewatering, disinfection, testing, compaction, cleanup work and all other incidentals and appurtenances required for satisfactory completion of work as specified."

**END OF SECTION**

Alabama Department of Transportation Standard Specifications for Highway Construction, 2022 Edition, SECTION 645 shall be revised as follows:

**SECTION 645**
**SANITARY SEWERS**

*SECTION 645 – SANITARY SEWERS* shall be amended to include the following:

**Section 645.01 – Description**

The following paragraphs shall be added:

"All sanitary sewer related construction shall be in accordance with the standards and specifications of the Mobile Area Water and Sewer System, the Alabama Department of Transportation, applicable OSHA regulations, and local ordinances. The most stringent shall govern. Payment will be made according to the Alabama Department of Transportation Specifications, 2022 and as modified within these special provisions.

All sanitary sewer related construction shall be in accordance with the MAWSS Standard Specifications Section 12 - Sanitary Sewer, Revised May 2021, and as included in their Appendix C - Sanitary Sewer Construction Details, latest edition."

**Section 645.03 – Construction Requirements**

645.03(a)1: Sanitary Sewer

Revise the sixth paragraph to read:

"All ductile iron sewer pipe and fittings shall be zinc-coated to a mass of 200 $g/m^2$ of pipe surface conforming to ISO 8179 along with an approved bituminous top coating in accordance with MAWSS Standards and Specifications."

The following paragraphs shall be added:

"The installation of all ductile iron pipe shall be in accordance with the latest publications by the Ductile Iron Pipe Research Association (DIPRA) and ANSI/AWWA C-600.

Marking of ductile iron pipe shall include the pressure rating, metal thickness, net weight of pipe without lining, length of pipe, name of manufacturer and letters "DI" which shall be clearly marked on each length of pipe.

All ductile iron pipe used for sanitary sewer shall be epoxy-lined with either Permox CTF or Tnemec 431 Perma-Shield PL.

SSO And Unpermitted Discharge Prevention:

Sanitary Sewer Overflows (SSOs) and unpermitted discharges of wastewater to the environment are a violation of Federal and State laws, as well as a breach of this Contract. The Contractor and associated subcontractors, vendors, and other entities and persons chosen to complete this Work shall not, through act or omission, discharge untreated wastewater to the environment or cause wastewater to back up into a building. The Contractor hereby agrees to indemnify the Owner if the

Owner is assessed penalties or fines, receives regulatory actions, or has claims, actions, or suits filed against it by any person or entity as a result of SSOs or unpermitted discharges caused by act or omission of the Contractor and/or any entity or person performing Work in the Contractor's behalf under this Contract. The Contractor shall reimburse the Owner for all damages, losses, penalties, fines, judgments, interest, costs, and expenses of every nature incurred by the Owner, including but not limited to reasonable attorney's fees, arising from or associated with each SSO or unpermitted discharge. In addition, the Contractor shall pay the following penalties to the Owner for SSOs and unpermitted discharges caused by the Contractor or any entity or person performing Work in the Contractor's behalf, regardless of whether such SSOs or discharges reach waters of the State.

| Estimated Volume Spilled | Penalty Amount |
|---|---|
| 0 to 10,000 gallons | $1,000 |
| 10,001 to 25,000 gallons | $2,000 |
| 25,001 to 50,000 gallons | $2,500 |
| 50,001 to 150,000 gallons | $3,000 |
| More than 150,000 gallons | $6,000 |

REPORTING SSOs AND UNPERMITTED DISCHARGES

The Contractor shall immediately report any unpermitted discharges and sanitary sewer overflows (SSOs), including, but not limited to, manhole overflows, lift station overflows, sewer line breaks, and collection system by-pass spills, to the Engineer, if applicable, or Owner. The Contractor must record all unpermitted discharges or SSOs on the Contractor SSO/Unpermitted Discharge Reporting Form which is located in the Owner's Standard Specifications Appendix N. The Owner will file an SSO Report with ADEM upon receiving notification of the SSO. The Contractor shall also clean the area impacted by the SSO and mitigate any damages to the environment or public health resulting from the spill.

If the Contractor does not properly report an unpermitted discharge or sanitary sewer overflow and the overflow is learned of by other means, the Contractor shall pay the Owner $5,000.

The Contractor causing the unpermitted discharge may be named in any regulatory and public notifications regarding the spill."

645.03(f): Connection to Existing Sewer System

The following paragraphs shall be added:

"Bypass Pumping requirements are as described Refer to Mobile Area Water and Sewer System's Standard Specifications including all requirements for reporting of SSO's."

The following sections items shall be added to Section 645.03 – Construction Requirements:

"**(h) Concrete Pier Saddle Set**

Where the sanitary sewer crosses under the storm pipe, the storm pipe shall be supported with a saddle set as detailed in the project plans. The sanitary sewer shall be ductile iron and centered between joints at the crossing location.

**(i) Coexistence Junction Box**

Where the sanitary sewer conflicts with the lower quarter of the storm pipe, the crossing shall be modified within a coexistence box. The sanitary sewer shall be ductile iron and centered

between joints at the crossing location. The sanitary sewer shall be fully encased within the concrete of the box invert. The invert shall be mounded to allow for smooth flow over the sanitary sewer.

**(j) Conflict Junction Box**

Where the sanitary sewer conflicts with the storm pipe, the crossing shall be modified within a conflict box. The sanitary sewer shall be ductile iron and centered between joints at the crossing location. Each location shall be reviewed with the Engineer and the best arrangement determined. The conflict box shall be used only after all other options exhausted."

**Section 645.04 – Method of Measurement**

The following paragraphs shall be added:

"**(p) Concrete Pier Saddle Set**

The saddle set will be measured per each location as one complete unit of two saddles to support the pipe crossing of another pipe. The saddle set includes all items as detailed in the project plans including coordination for the testing of the appropriate compaction.

**(q) Coexistence Junction Box**

Coexistence box will be measured per each one complete unit of the box to allow for the crossing of the storm pipe and the sanitary sewer that conflict as detailed in the project plans including the base, walls, concrete for the invert mound, frame and cover and all other incidentals required for a complete box.

**(r) Conflict Junction Box**

Conflict box will be measured per each one complete unit of the box to allow for the crossing of the storm pipe and the sanitary sewer that conflict as detailed in the project plans including the base, walls, concrete for the invert mound, frame and cover and all other incidentals required for a complete box."

**Section 645.05 – Basis of Payment**

645.05(a) Unit Price Coverage.

2. Sewer Pipe.

The following paragraph shall be added:

"Payment for the accepted length of sewer pipe shall include all provisions and requirements for testing, bypass pumping, and dewatering."

17. Concrete Pier Saddle Set

The following paragraph shall be added:

"Payment for the saddle set shall include two (2) saddles and protection of the existing utility during saddle installation."

18. Coexistence Junction Box

The following paragraph shall be added:

"Payment for the coexistence box shall include the complete box as detailed in the project plans, all dewatering, concrete, and foundation."

19. Conflict Junction Box

The following paragraph shall be added:

"Payment for the conflict box shall include the complete box as detailed in the project plans, all dewatering, concrete, foundation, and coordination with the Engineer for the site-specific conditions."

645.05(b): Payment Will Be Made Under Item No.:

The following shall be added:

"645Q-300 – Concrete Pier Saddle Set – per each
645Q-400 – Coexistence Junction Box – per each
645Q-500 – Conflict Junction Box – per each"

**END OF SECTION**

Alabama Department of Transportation Standard Specifications for Highway Construction, 2022 Edition, SECTION 649 shall be revised as follows:

**SECTION 649**
**ENCASEMENT PIPE FOR UTILITIES**

*SECTION 649 – ENCASEMENT PIPE FOR UTILITIES* shall be amended to include the following:

The following paragraphs shall be added:

"All related construction shall be in accordance with the standards and specifications of the Mobile Area Water and Sewer System, the Alabama Department of Transportation, applicable OSHA regulations, and local ordinances. The most stringent shall govern. Payment will be made according to the Alabama Department of Transportation Specifications, 2022 and as modified within these special provisions.

All related construction shall be in accordance with the MAWSS Standard Specifications Section 17 – Encasement Pipe, revised June 2019."

**Section 649.05 – Basis of Payment**

(a) Unit Price Coverage

Delete the current paragraph and replace it with the following paragraph:

"Payment for this item shall include, but is not limited to encasement installation, excavating, welding, backfilling, spacers, end seals, linings, coatings, coordination with the City of Mobile and ALDOT, temporary sheeting or shoring, dewatering, testing, compaction, support/protection of existing utilities, cleanup work, and all other incidentals and appurtenances required for completion of Work as shown, specified, or directed by the Engineer, except items for which separate unit prices are quoted. The carrier pipe shall be paid for under its respective pay item no. Any damage to the existing structures or any other structure or property shall be repaired or replaced at the Contractor's expense."

**END OF SECTION**

Alabama Department of Transportation Standard Specifications for Highway Construction, 2022 Edition, SECTION 853 shall be revised as follows:

**SECTION 853**
**SANITARY SEWER PIPE, MANHOLES, AND APPURTENANCES**

*SECTION 853 – SANITARY SEWER PIPE, MANHOLES, AND APPURTENANCES* shall be amended to include the following:

"**853.11 Concrete for Miscellaneous Sewer Construction**

The minimum compressive strength required at 28 days is 3,000 pounds per square inch. Field specimens and laboratory tests shall be made in accordance with the standards of the American Society of Testing Materials. The minimum amount of water shall be used to produce a workable mix and shall not exceed 6 U.S. gallons per sack of cement. The slump shall range between 2 and 5 inches."

**END OF SECTION**

Alabama Department of Transportation Standard Specifications for Highway Construction, 2022 Edition, SECTION 863 shall be revised as follows:

**SECTION 863**
**WATER PIPE, FIRE HYDRANTS, VALVES, AND APPURTENANCES**

*SECTION 863 – WATER PIPE, FIRE HYDRANTS, VALVES, AND APPURTENANCES* shall be amended to include the following:

Section 863.01 Ductile Iron Water Pipe

The following paragraph shall be added:

"The exterior of the pipe shall receive a zinc coating applied to a mass of 200 g/$m^2$ of pipe surface conforming to ISO 8179 along with an approved bituminous top coating. Design pressure classes shall be as follows: 4" – 12" diameter shall be Class 350, 14" – 24" diameter shall be Class 250, and 30" – 54" diameter shall be Class 150."

Section 863.02 Ductile Iron Fittings.

Delete the paragraph and replace it with the following:

"Ductile iron fittings shall be mechanical joint except where noted otherwise on the Plans and/or Specifications and shall be installed using ductile iron restraining glands or rings. Approved glands for this purpose will be a restraining ring (wedge action) gland. Fittings shall be suitable for use at 350 psi (3–16 inch) and 250 psi (18-48 inch) of working pressure and shall conform to AWWA C110 or to AWWA C153. Fittings shall be cement mortar lined and the exterior coated with zinc applied to a mass of 200 g/m2 of pipe surface conforming to ISO 8179 along with an approved bituminous top coating, in accordance with AWWA C104. Compact ductile iron fittings meeting AWWA C153 may be furnished. Installation shall be in strict conformance with the pipe manufacturer's recommendations."

Section 863.04 Poly (Vinyl Chloride) (PVC) Plastic Pipe.

The following paragraphs shall be added:

"Greater than 14" through 36" Diameter (C905) – Polyvinyl chloride (PVC) plastic pipe in sizes greater than 12" diameter shall conform to the requirements of AWWA C905, "Polyvinyl Chloride (PVC) Pressure Pipe 14" Through 36" and shall be a minimum pressure rating of 235 with a Standard Dimension Ratio of 18 or heavier.

Written certification accompanied by a copy of test results, that the pipe and pipe material has been sampled, tested, and inspected as required in AWWA C900 or AWWS C905 shall be provided.

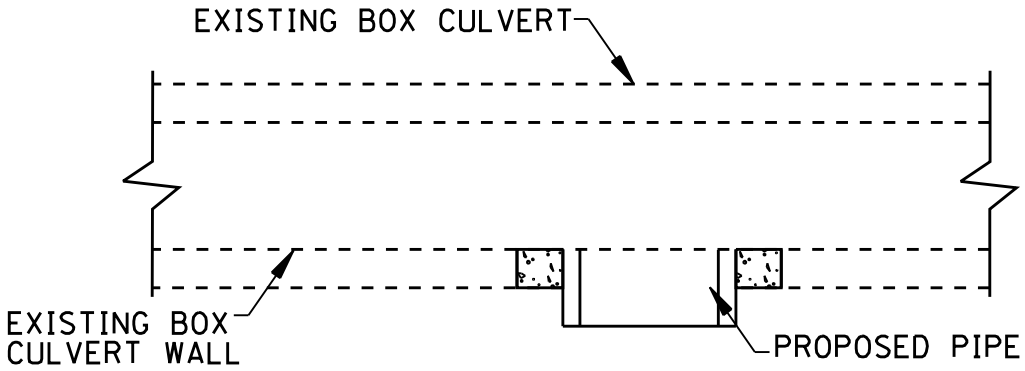
Marking on C900 pipe shall include the following, spaced at intervals of not more than 5 feet:

i. Normal size and OD bore
ii. PVC
iii. Dimension Ratio

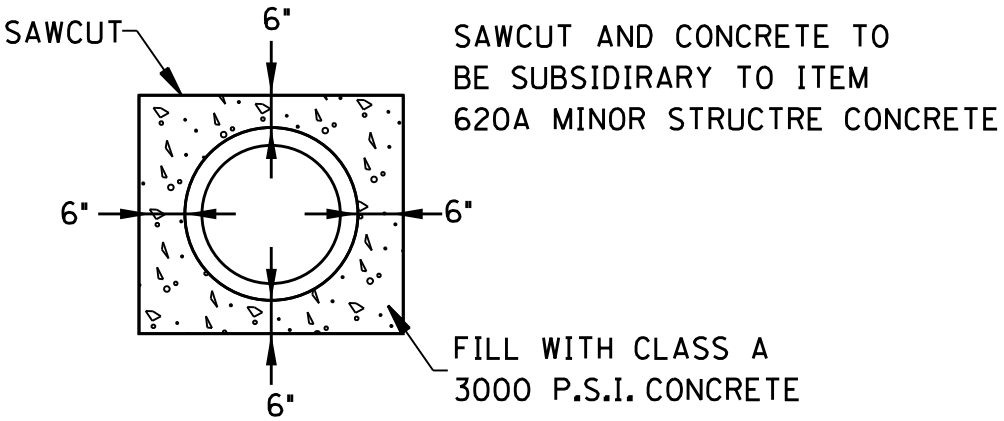
iv. AWWA Pressure Class
v. AWWA designation C900 or C905
vi. Manufacturer's name or trademark and production code
vii. National Sanitation Foundation (NSF) seal"

**END OF SECTION**

# ATTACHMENT E



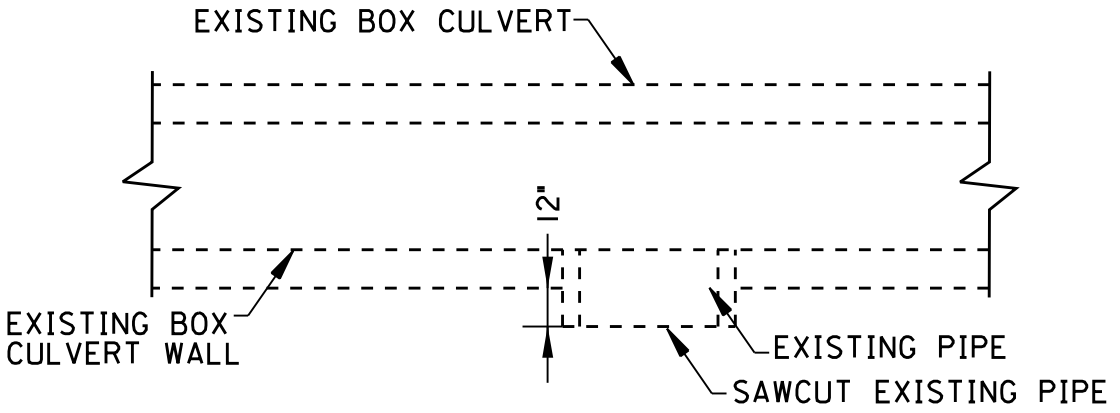

PLAN



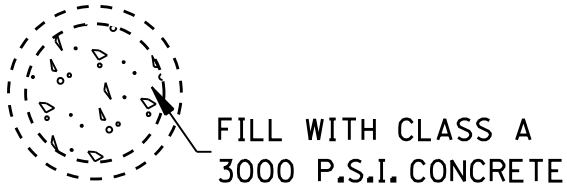

SECTION

## PROPOSED PIPE CONNECTION AT CULVERT

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SECTION

# EXISTING PIPE CONNECTION AT CULVERT

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