GENERAL SITE - REPLACE GENERAL STORES FUEL TANK
MU PROJECT NUMBER CP180241
AT
UNIVERSITY OF MISSOURI - COLUMBIA
FOR
CURATORS OF THE UNIVERSITY OF MISSOURI
APRIL 25, 2019

UNIVERSITY OF MISSOURI

PROJECT LOCATION MAP
NOT TO SCALE

I HEREBY CERTIFY THESE DRAWINGS AND/OR SPECIFICATIONS HAVE BEEN PREPARED BY ME OR UNDER MY SUPERVISION. I FURTHER CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THESE DRAWINGS AND/OR SPECIFICATIONS ARE AS REQUIRED BY AND IN COMPLIANCE WITH THE BUILDING CODES OF THE UNIVERSITY OF MISSOURI.

_______________________________________________ SIGNATURE

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or
811
www.mo1call.com

SHEET INDEX

<table>
<thead>
<tr>
<th>SHEET NO.</th>
<th>DRAWING NO.</th>
<th>SHEET TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G001</td>
<td>COVER SHEET</td>
</tr>
<tr>
<td>2</td>
<td>C100</td>
<td>CIVIL - DEMOLITION AND STAGING AREA</td>
</tr>
<tr>
<td>3</td>
<td>P020</td>
<td>FUEL TANK DEMOLITION PLAN</td>
</tr>
<tr>
<td>4</td>
<td>P200</td>
<td>FUEL TANK IMPROVEMENT PLAN</td>
</tr>
<tr>
<td>5</td>
<td>P420</td>
<td>FUEL TANK DETAILS</td>
</tr>
</tbody>
</table>
GENERAL SERVICES BUILDING

CHAMPIONS DRIVE

UNIVERSITY GARAGE

FUEL PUMPS

EXISTING FUEL TANKS

SEE SHEET P020 FOR DETAILED DEMOLITION PHASING NOTES. MINIMIZE FENCE REMOVAL AS MUCH AS POSSIBLE. REPLACE ANY REMOVED FENCE TO AN EQUAL OR BETTER CONDITION THAN EXISTING FENCE.

CONSTRUCTION SITE AND STAGING LIMITS, LAYDOWN AREA

CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC THROUGH CONSTRUCTION DURATION

THESE NO. 2 FUEL OIL TANKS NEED TO REMAIN ACCESSIBLE TO FACILITY OPERATIONS. CONTRACTOR SHALL COORDINATE WITH FACILITY OPERATIONS ACCORDINGLY.

ACCESS TO PROJECT SITE FROM STADIUM BLVD

LEGEND

CONSTRUCTION SITE & STAGING LIMITS

SCALE: 1"=20'

4-3-19
DEMOLITION REFERENCE NOTES:

1. REMOVE WEST FUEL TANK AND SUPPORTS AS REQUIRED TO FACILITATE REMOVAL OF VARIOUS FUEL TANK AND PROCEDURE OF NEW FUEL TANK.
2. KEEP FENCE TO REMAIN TO WEST OF POST.
3. REMOVE WEST STAIR AND UNIT ONE TO REMAIN TO DEMOLISH UNIT ONE AND PROVIDE TEMPORARYAIL COVERING.
4. REMOVE WEST FUEL TANK AND ONLY AS MUCH FUEL PIPING AS IS REQUIRED TO FACILITATE INSTALLATION OF NEW FUEL TANK.
5. REMOVE EAST FUEL TANK, ELEVATED STAIR, AND WALKWAY TO CENTER SUPPORT COLUMN AND PROVIDE TEMPORARY RAILING AT EXPOSED END.
6. DISCONNECT AND TEMPORARILY CAP FUEL LINE FROM WEST TANK INSIDE WEST FUEL PIPING VAULT.
7. REMOVE EAST FUEL TANK AND ONLY AS MUCH FUEL PIPING AS IS REQUIRED TO FACILITATE INSTALLATION OF NEW FUEL TANK.
8. REMOVE EAST STAIR AND WALKWAY OVER EAST FUEL TANK.
9. REMOVE EAST FUEL TANK AND ALL ASSOCIATED ABOVE AND BELOW GRADE FUEL PIPING.
10. REMOVE EAST FUEL FILL, EAST VAULT, AND ALL ASSOCIATED PIPING.

FUEL TANK DEMOLITION PLAN


demolition reference notes:

1. contractor shall coordinate with owner to ensure east tank is empty prior to mobilization.
2. contractor is responsible for transferring fuel between tanks and cleaning sludge from west tank.
3. per missouri department of natural resources, contractor shall submit application form 780-1923 for demolition permit. mu will provide the asbestos report to the contractor.

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**FUEL TANK IMPROVEMENT PLAN**

**BASE BID:**
10,000 GAL FUEL TANK 19'-7" WIDE 29'-3" LONG
VERIFY WITH MANUFACTURER

**ADD ALTERNATE 1:**
15,000 GAL FUEL TANK 12'-3" WIDE 28'-1" LONG
VERIFY WITH MANUFACTURER

**EQUIPMENT PAD REFER TO 1/P420**
25'-0" MIN.

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**GENERAL NOTES:**

1. A temporary fuel tank may be used allowing the removal of both tanks at the same time. If the contractor wishes to use a temporary tank it must meet the following.

   1.1. Temporary tank must have secondary containment.
   1.2. The contractor must provide a secure fence enclosure around the tank.
   1.3. There may not be disruption to the gas service during normal business hours, or at all during the week or weekend of commencement.
   1.4. The contractor shall transfer fuel from the existing tanks to the temporary tank prior to demolition. The contractor shall transfer the remaining fuel at the end of construction to the new tank.

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**IMPROVEMENT PLAN REFERENCE NOTES:**

1. Connect pigtail fittings for new fuel line. Move to fuel line and detail, sketch 100; verify tank size and vessel pad size as per detail.
2. Gravel and platform finishing with both tank, pigtail, and vessel pad provide support base to fuel tank pad.
3. Extend fuel line riser in order to match and install all equipment pads near fuel storage locations on tank pad, detail P420.
4. Verify fuel piping ethics of east fuel piping vault per detail, locate in size and type to match fuel piping.
5. Extend in power, control, and instrumentation equipment in fuel storage locations on tank pad, detail P420.
6. Verify.
7. Provide new pavement finishing. Provide new fencing, refer to specifications.
8. Associate fuel fill connection quick disconnect to 3' minimum from fuel tank.
10. New tank to be located a minimum of 24" from piping manifold.

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**MODIFICATIONS TO WEST FUEL PIPING VAULT**

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**SCALE:** 1/8"=1'-0"
### FUEL TANK DETAILS

#### POST & MATERIALS TABLE

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONCRETE FOOTING</td>
<td>1</td>
<td>4000 # P.C.C. POUR THIS SECTION IMMEDIATELY</td>
</tr>
<tr>
<td>1'-9&quot; POST</td>
<td>1</td>
<td>FOR LINE POSTS</td>
</tr>
<tr>
<td>1'-0&quot; POST</td>
<td>1</td>
<td>FOR TERMINAL/END POSTS &amp; GATE POSTS</td>
</tr>
<tr>
<td>2'-0&quot; POST</td>
<td>1</td>
<td>FOR NEW TANK SUPPORT</td>
</tr>
</tbody>
</table>

### UNDISTURBED NATURAL GROUND OR COMPACTED BACKFILL

- 9 GA. WIRE TIES AT 14" O.C.
- 9 GA. WIRE TIES FOR CORNERS, TYPICAL RAIL AND TRUSS WIRE PANEL TO JOIN POST IN BOTH DIRECTIONS
- TENSION BAR BANDS 1/8" X 3 3/4" AT 12" O.C.
- STEEL TRUSS ROD WITH ADJUSTABLE TIGHTENER AND FITTINGS (TYP.)
- 6" MIN. DIA. FINE STABILIZATION DRAINAGE PIPE
- 3 STRAND BARBED WIRE 1 5/8" O.D. SCHEDULE 40 PIPE (GALV.)
- 3 STRANDS OF 12 1/2 GA. WIRE, TWISTED WITH TWO POINT, 14 GA. BARBS
- SLOPE TO DRAIN
-ファンジを使用する
- TYPICAL POST INSTALLATION

### DETAILS NOT TO SCALE

- 3'-0" DEPTH REQUIRED FOR LINE POSTS
- 4'-0" DEPTH REQUIRED FOR TERMINAL/END POST & GATE POSTS
- 1'-0" WIDTH FOR LINE POSTS
- 1'-6" WIDTH FOR TERMINAL/END POSTS & GATE POSTS
- 6" MIN. DIA. CONCRETE SLAB WITH 6X6/W29XW29W.W.F.
- 3/8" GALV. STEEL RAILS
- 2'-6" BENDDOWN
- 4" CONCRETE SLAB WITH 6X6/W29XW29W.W.F.
- 3" CONCRETE SLAB WITH 5-#5 CI.3" #4 @ 12"

### ADVISORY

- GALVANIZED FENCING TO BE 9 GA. WITH 1.2 OZ. OF ZINC
- VERIFY DIMENSION OF TANK W/ SUPPLIER AND PROVIDE PAD 12" LARGER IN ALL DIRECTIONS FROM TANK FOOTPRINT. ADJUST ACCORDINGLY FOR EACH ALTERNATE TANK SIZE AND MANUFACTURER. DIMENSIONS BASED ON HIGHLAND FIRE GUARD TANKS
- SCALE: NONE
- NOTE: SCALES ARE NOT SHOWN ON OFFICIAL DRAWINGS. IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.