

WATER DISTRIBUTION PROJECT

COMMUNITIES: CABEZA DE TORO AND MACHETE

COUNTRY: DOMINICAN REPUBLIC



DRAWING LIST FOR DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM		
DISTRIBUTION SYSTEM DRAWINGS		
DRAWING NO.	SHEET	DATE
GI-001	COVER SHEET	06/10/2019
LP-001	SYSTEM LAYOUT - PHASE 3-CABEZA DE TORO	09/15/2019
LP-002	SYSTEM LAYOUT - PHASE 3-STAGE 1 - CABEZA DE TORO	09/15/2019
LP-003	SYSTEM LAYOUT - PHASE 3- MACHETE	06/10/2019
LP-004	SYSTEM LAYOUT - INSET A	09/15/2019
DT-001	SYSTEM SCHEMATIC	08/19/2019
DT-002	TAP STAND PLAN VIEW	10/27/2018
DT-003	TAP STAND SECTION VIEW	10/27/2018
DT-004	LATERAL DETAIL	10/27/2018
DT-005	PIPE FITTINGS DETAIL	10/27/2018
DT-007	AIR RELEASE VALVE DETAIL	10/27/2018
DT-008	REMOVED	10/27/2018
DT-009	VALVE BOX STANDARD COVER DETAIL	10/27/2018
DT-010	VALVE BOX LOCKING COVER DETAIL	10/27/2018
DT-011	TRENCHING DETAIL	02/01/2019
DT-012	STORAGE TANK OUTLET PLAN VIEW	10/27/2018
DT-013	STORAGE TANK OUTLET SECTION VIEW	10/27/2018
ADDITIONAL DRAWINGS FOR DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM		
DISTRIBUTION SYSTEM DRAWINGS		
SHEET		DATE
ACUEDUCTO CABEZA DE TORO		10/27/2018
ACUEDUCTO MACHETE		10/27/2018
WATER DISTRIBUTION PAD		08/26/2019
CABEZA DE TORO WATER TANK - ISO VIEW		09/17/2019
CABEZA DE TORO WATER TANK - TOP VIEW		09/17/2019

PARTNERS:

1. MACHETE AND CABEZA DE TORO WATER BOARD
2. AGROFRONTERA
3. DGDF
4. INDRHI
5. INAPA
6. ESPERANZA ROTARY CLUB
7. FLEETWOOD ROTARY CLUB
8. CITY OF GUAYUBIN

LAST REVISED: 09/17/19

DATE: 12/09/16

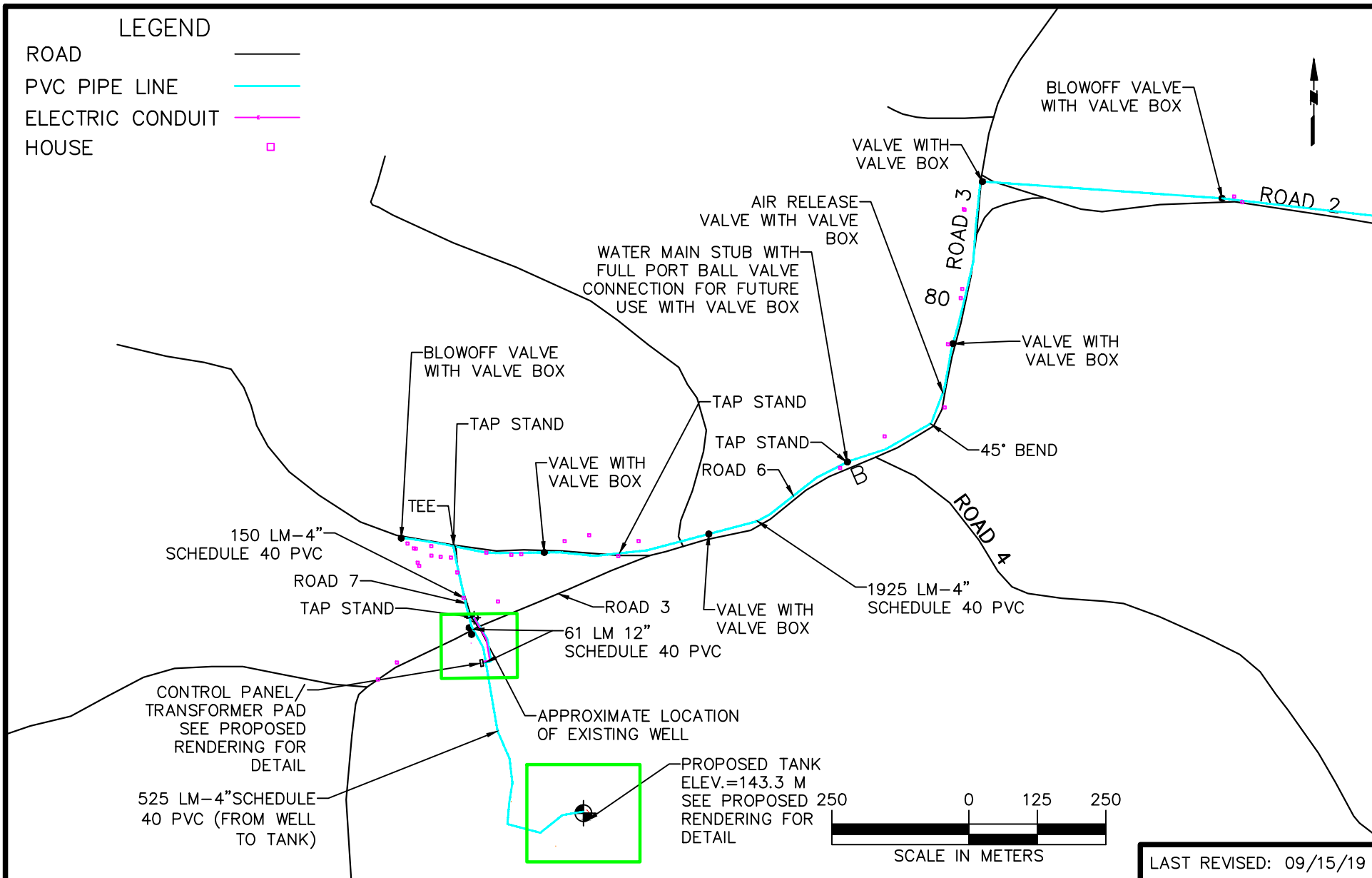
DRAWN BY: KG

CHECKED BY: DC

DRAWING: GI-001

LEGEND

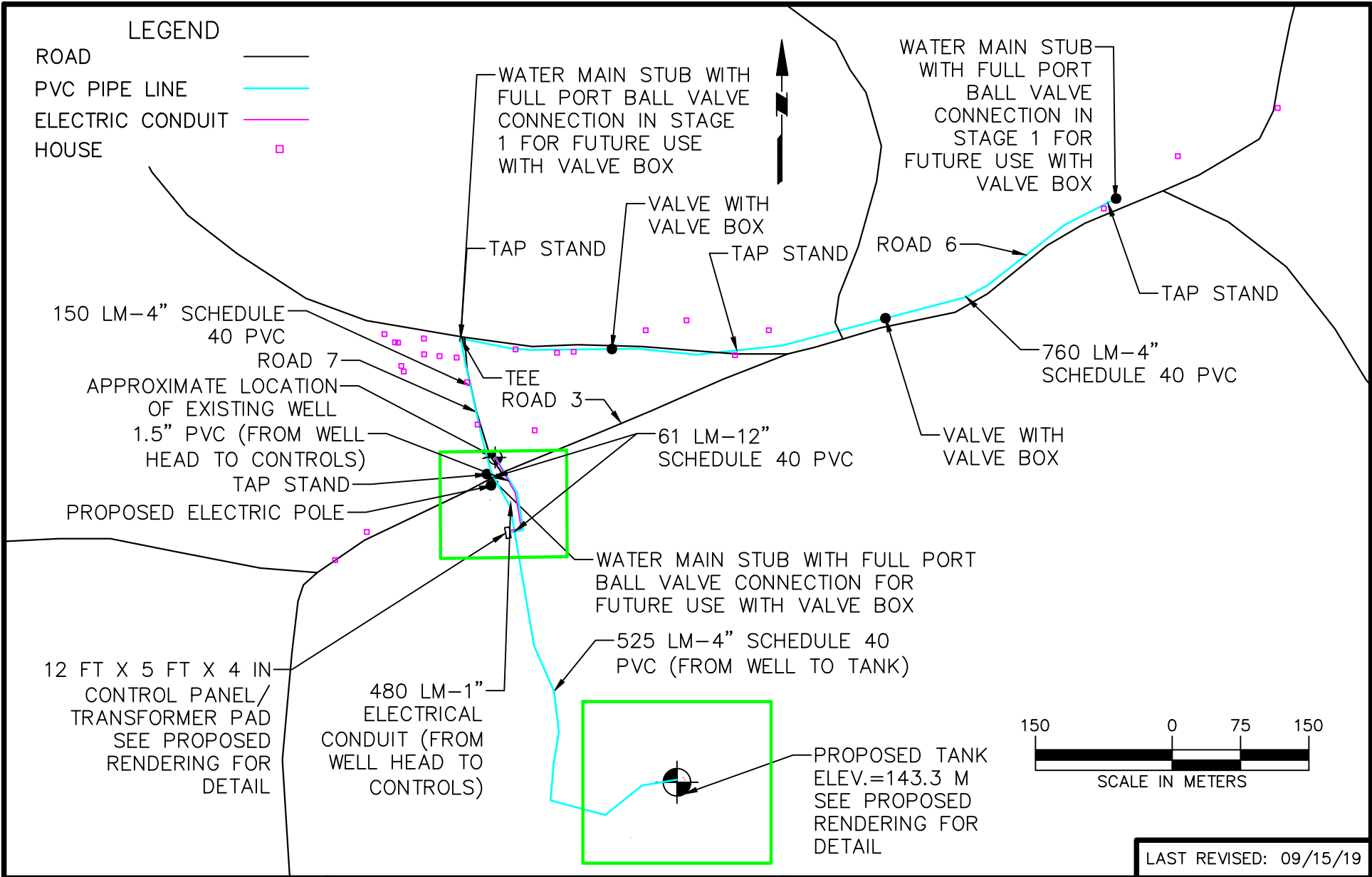
- ROAD ———
- PVC PIPE LINE ———
- ELECTRIC CONDUIT ———
- HOUSE □



PROJECT:
DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3

DRAWING TITLE:
SYSTEM LAYOUT - CABEZA DE TORO

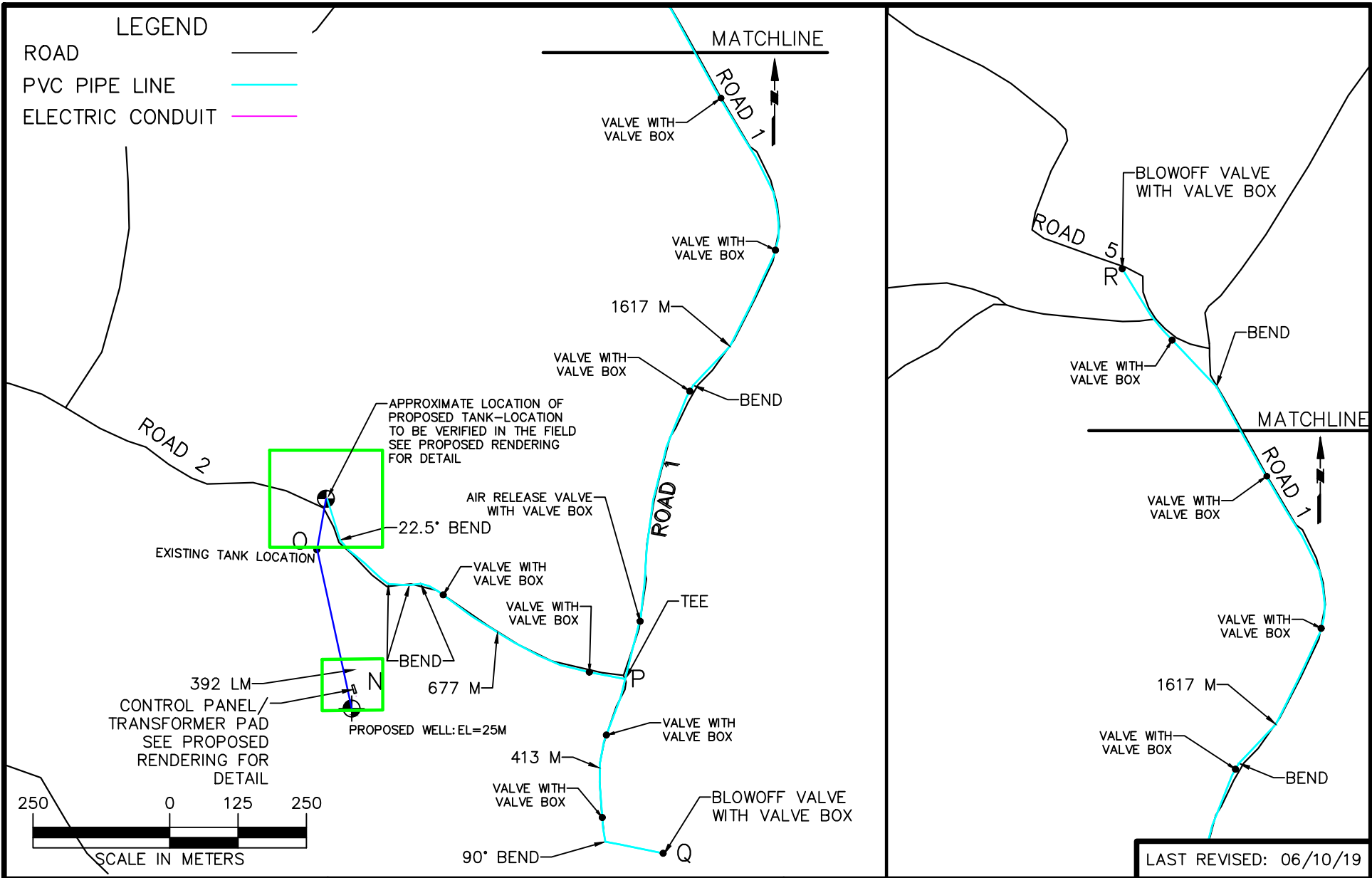
LAST REVISED: 09/15/19
DATE: 12/09/16
DRAWN BY: KG
CHECKED BY: DC
DRAWING: LP-001



PROJECT:
DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3

DRAWING TITLE:
SYSTEM LAYOUT - STAGE 1 CABEZA DE TORO

LAST REVISED: 09/15/19
DATE: 12/09/16
DRAWN BY: KG
CHECKED BY: DC
DRAWING: LP-002



PROJECT:

DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3

DRAWING TITLE:

SYSTEM LAYOUT - MACHETE

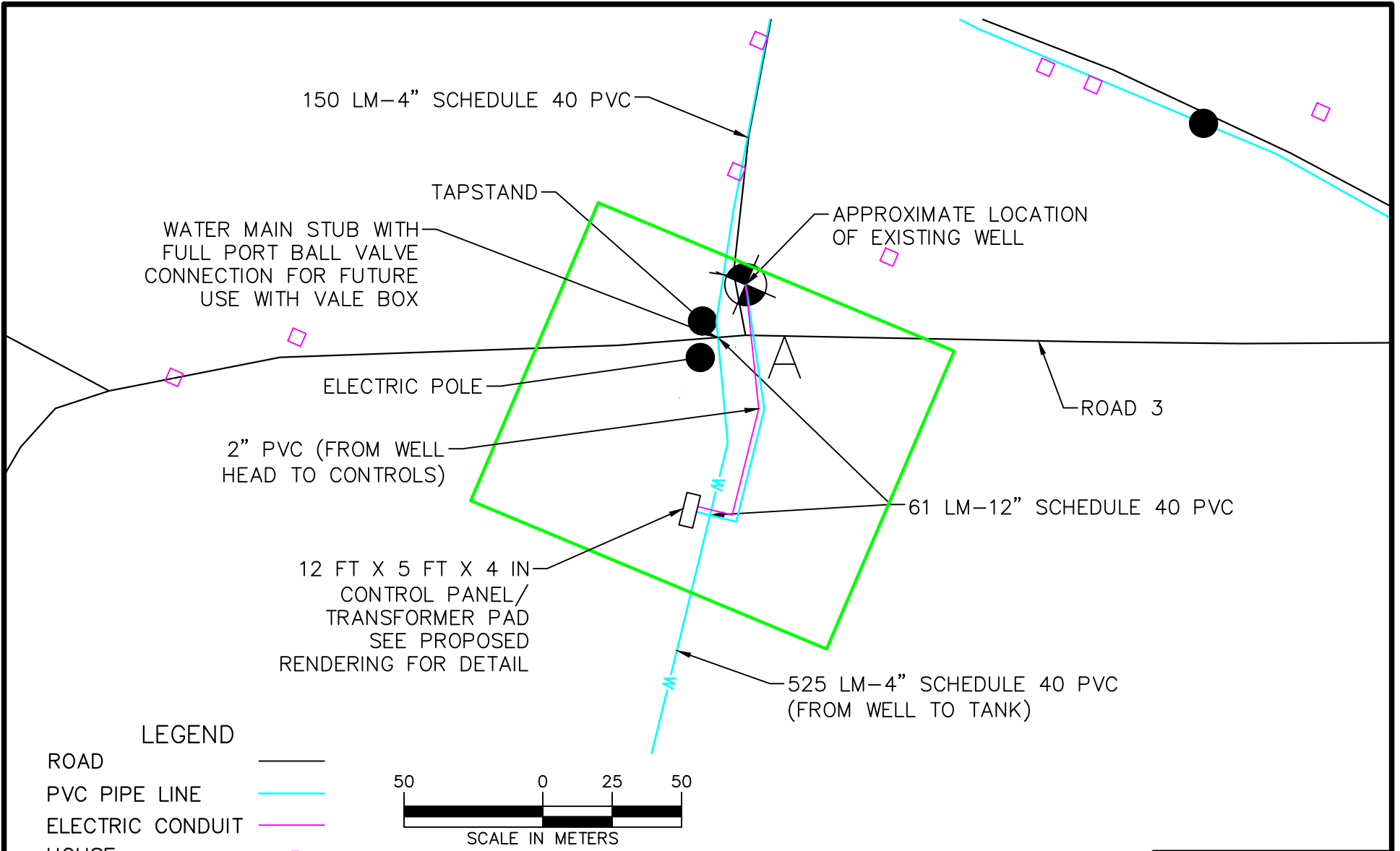
LAST REVISED: 06/10/19

DATE: 12/09/16

DRAWN BY: KG

CHECKED BY: DC

DRAWING: LP-003















LAST REVISED: 09/15/19
DATE: 12/09/16
DRAWN BY: KG
CHECKED BY: DC
DRAWING: LP-004

PROJECT:
DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3

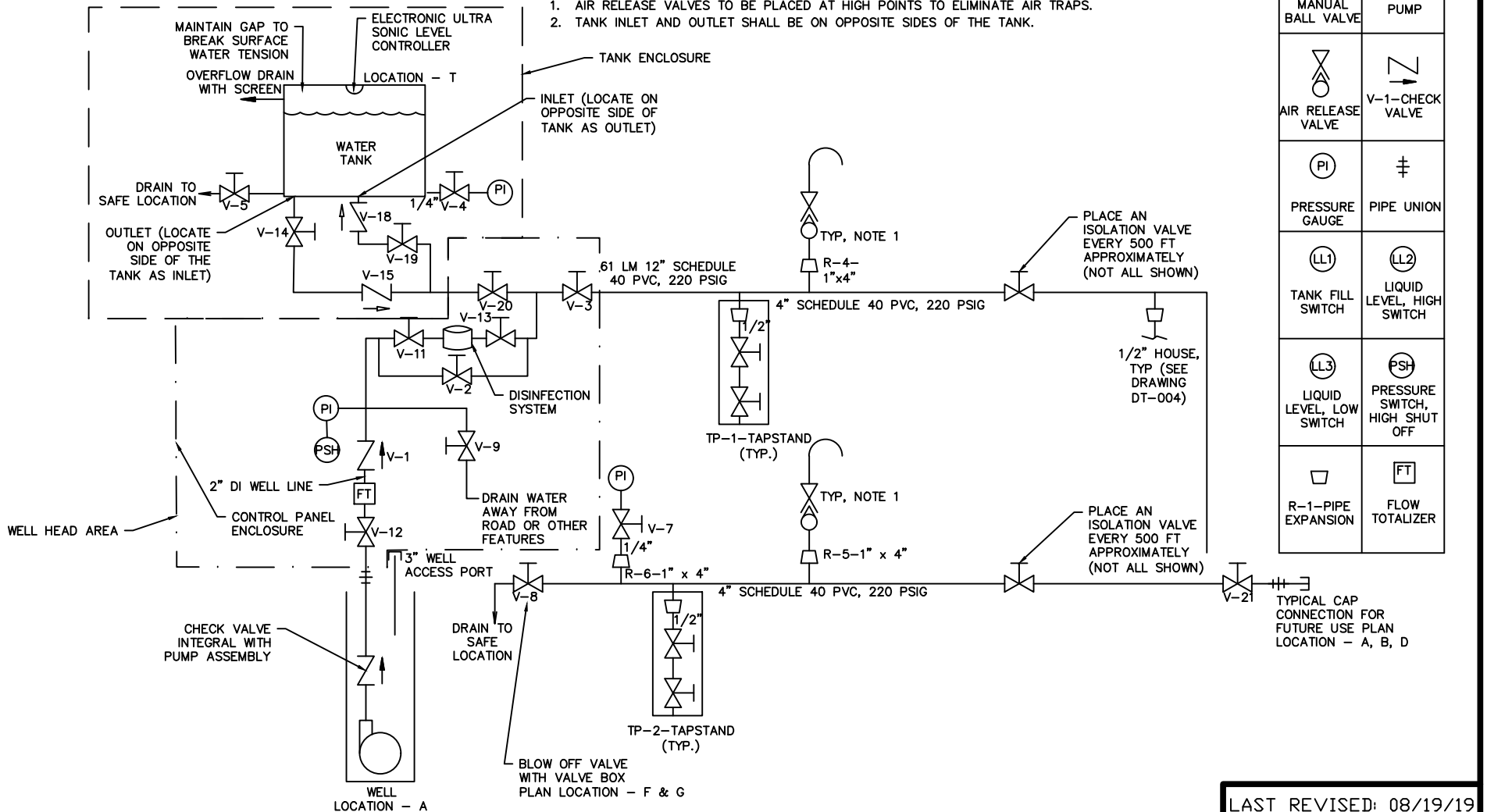
DRAWING TITLE:
CABEZA DE TORO SYSTEM LAYOUT - INSET A

LEGEND

 V-2- MANUAL BALL VALVE	 PUMP
 AIR RELEASE VALVE	 V-1-CHECK VALVE
 PRESSURE GAUGE	 PIPE UNION
 TANK FILL SWITCH	 LIQUID LEVEL, HIGH SWITCH
 LIQUID LEVEL, LOW SWITCH	 PRESSURE SWITCH, HIGH SHUT OFF
 R-1-PIPE EXPANSION	 FLOW TOTALIZER

NOTES:

1. AIR RELEASE VALVES TO BE PLACED AT HIGH POINTS TO ELIMINATE AIR TRAPS.
2. TANK INLET AND OUTLET SHALL BE ON OPPOSITE SIDES OF THE TANK.



LAST REVISED: 08/19/19

PROJECT:

**DOMINICAN REPUBLIC WATER
DISTRIBUTION SYSTEM - PHASE 3**

DRAWING TITLE:

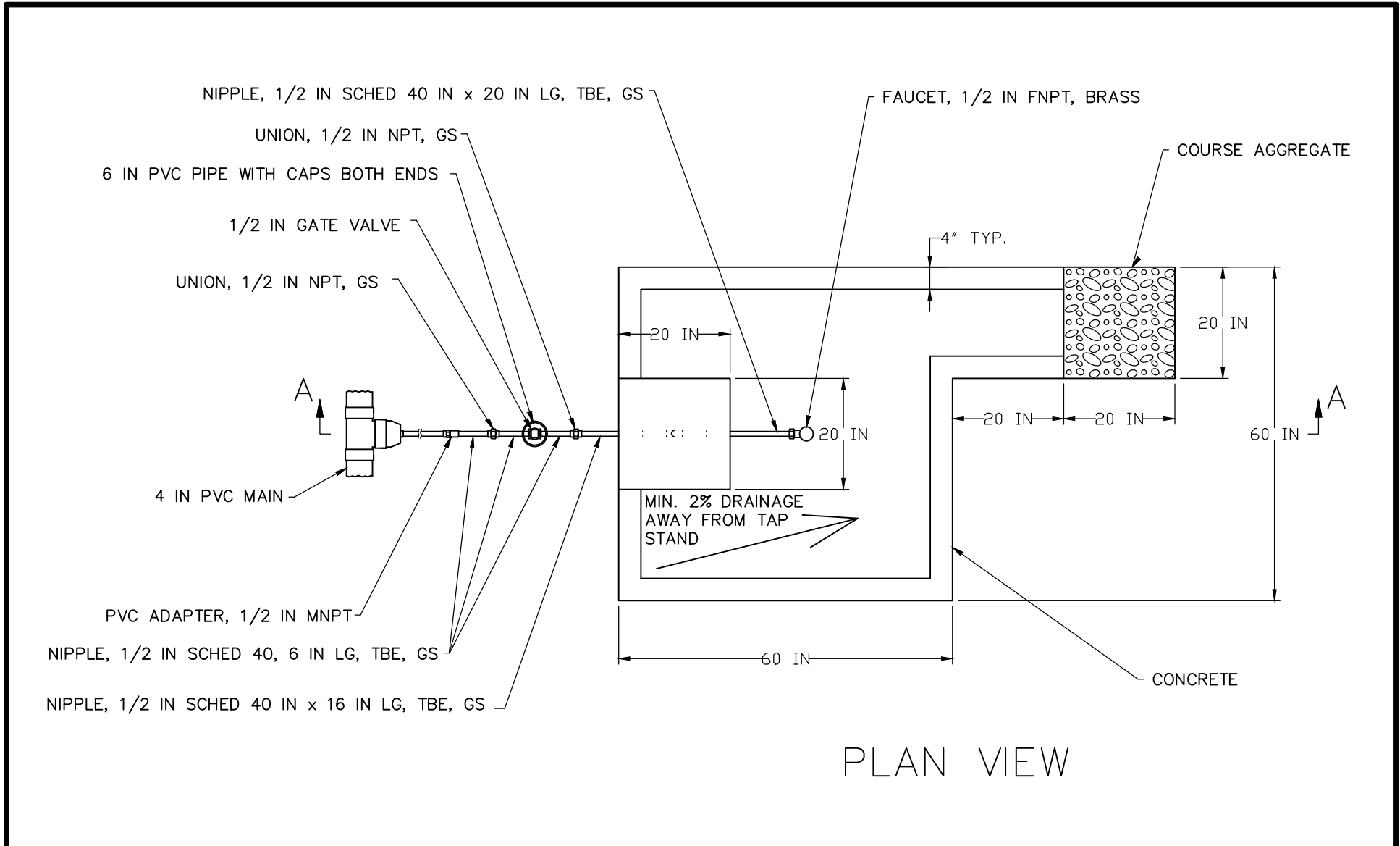
**TYPICAL SCHEMATIC FOR
INDIVIDUAL WATER
DISTRIBUTION SYSTEMS**

DATE: 12/09/16

DRAWN BY: KG

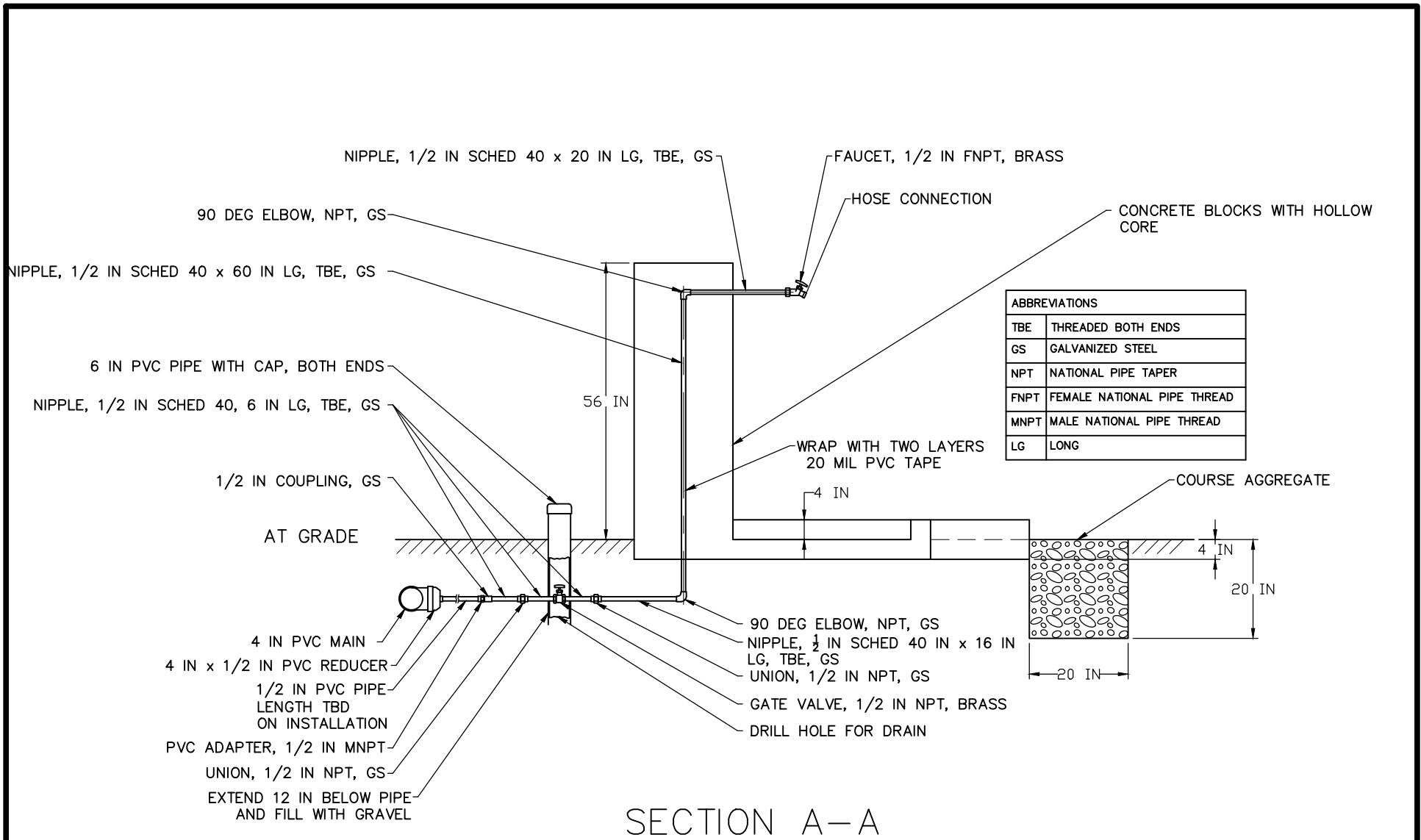
CHECKED BY: DC

DRAWING: DT-001



PLAN VIEW

	PROJECT: DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3	DRAWING TITLE: TAP STAND PLAN VIEW	LAST REVISED: 10/27/18 DATE: 12/09/16 DRAWN BY: DC CHECKED BY: XX DRAWING: DT-002
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LAST REVISED: 10/27/18

PROJECT:

DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3

DRAWING TITLE:

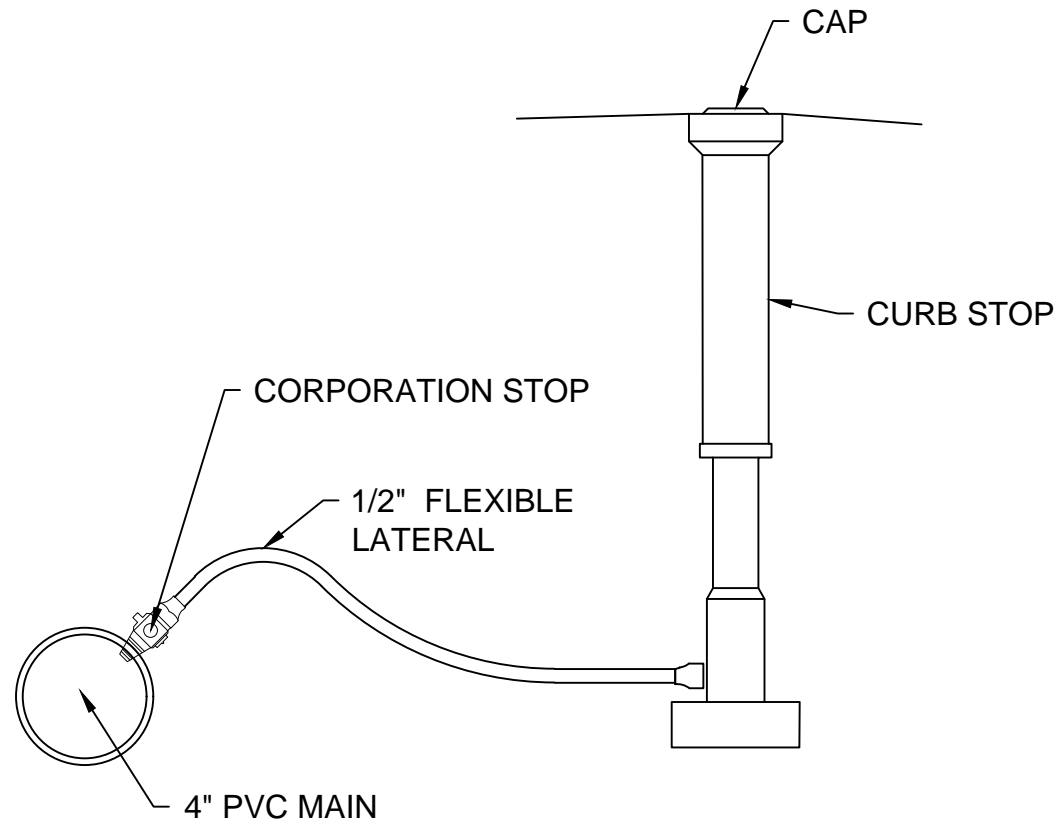
TAP STAND SECTION VIEW

DATE: 12/09/16

DRAWN BY: DC

CHECKED BY: XX

DRAWING: DT-003



NOTE:
 EACH HOUSE WILL BE PROVIDED WITH A 1/2" LATERAL TO A CURB STOP. THE HOMEOWNER IS THEN RESPONSIBLE FOR THE LATERAL TO THE HOUSE WITH A HOUSE CONNECTION.

LAST REVISED: 10/27/18

PROJECT:
**DOMINICAN REPUBLIC WATER
 DISTRIBUTION SYSTEM - PHASE 3**

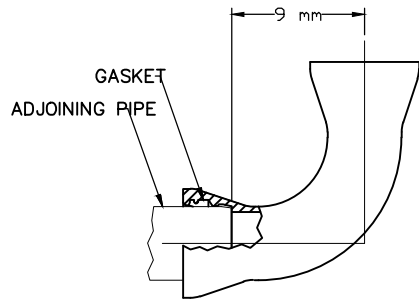
DRAWING TITLE:
LATERAL DETAIL

DATE: 12/09/16

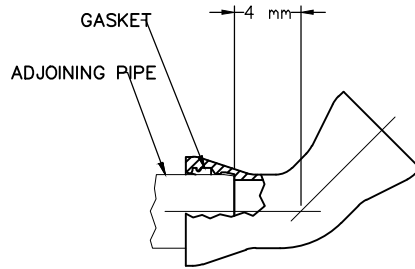
DRAWN BY: KG

CHECKED BY: DC

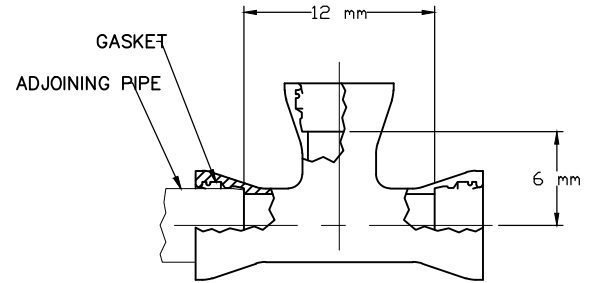
DRAWING: DT-004



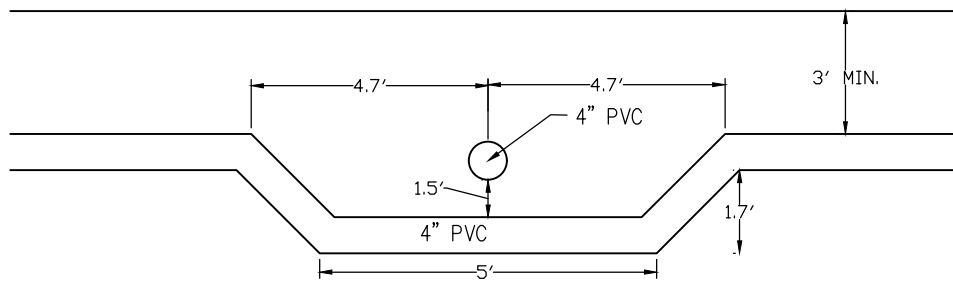
90 ELBOW
CHARACTERISTIC
DIMENSIONS, TYP



45 ELBOW
CHARACTERISTIC
DIMENSIONS, TYP



TEE
CHARACTERISTIC
DIMENSIONS, TYP



DUCK UNDER

LAST REVISED: 10/27/18

PROJECT:

**DOMINICAN REPUBLIC WATER
DISTRIBUTION SYSTEM - PHASE 3**

DRAWING TITLE:

PIPE FITTINGS DETAIL

DATE: 12/09/16

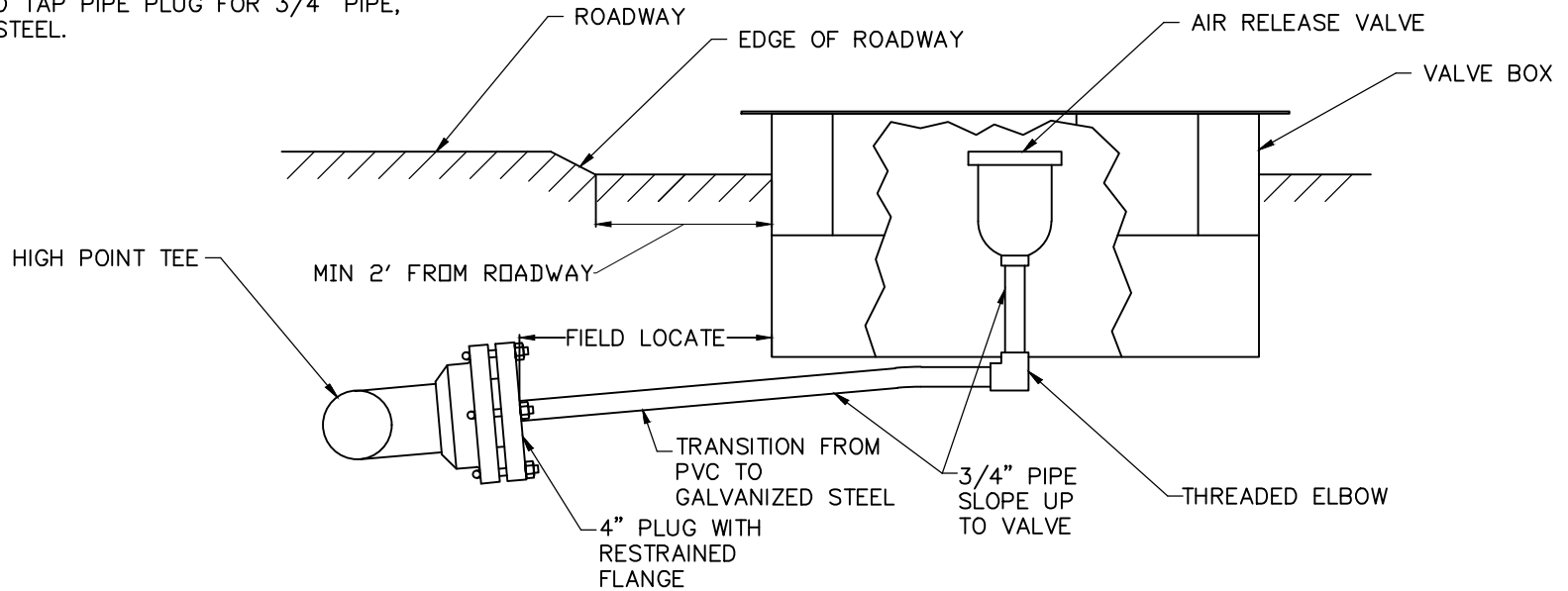
DRAWN BY: DC

CHECKED BY: DC

DRAWING: DT-005

NOTES:

1. DRILL AND TAP PIPE PLUG FOR 3/4" PIPE, GALVANIZED STEEL.



ELEVATION VIEW

MATERIALS	
Qt	DESCRIPTION
1	VALVE BOX
1	TEE, RESTRAINED, 4", DUCTILE IRON
2	3/4" PIPE, GALVENIZED, TBE
1	3/4" ELBOW, GALVENIZED, THREADED

LAST REVISED: 10/27/18

PROJECT:

DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3

DRAWING TITLE:

**AIR RELEASE VALVE
DETAIL AND
INSTALLATION**

DATE: 12/09/16

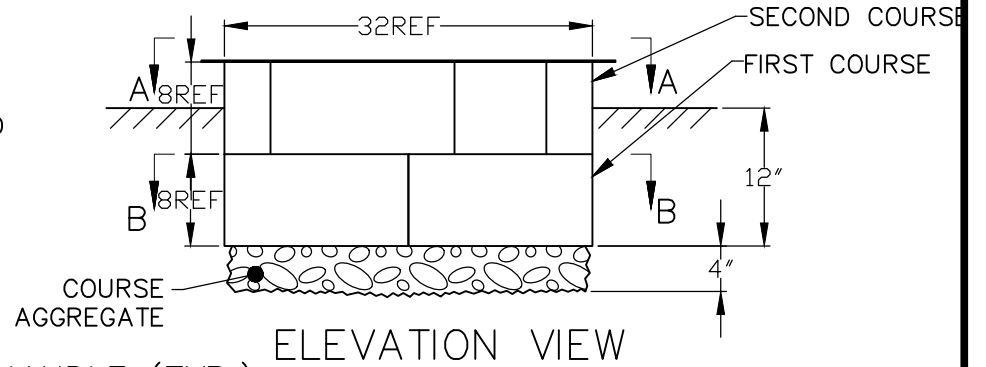
DRAWN BY: DC

CHECKED BY: XX

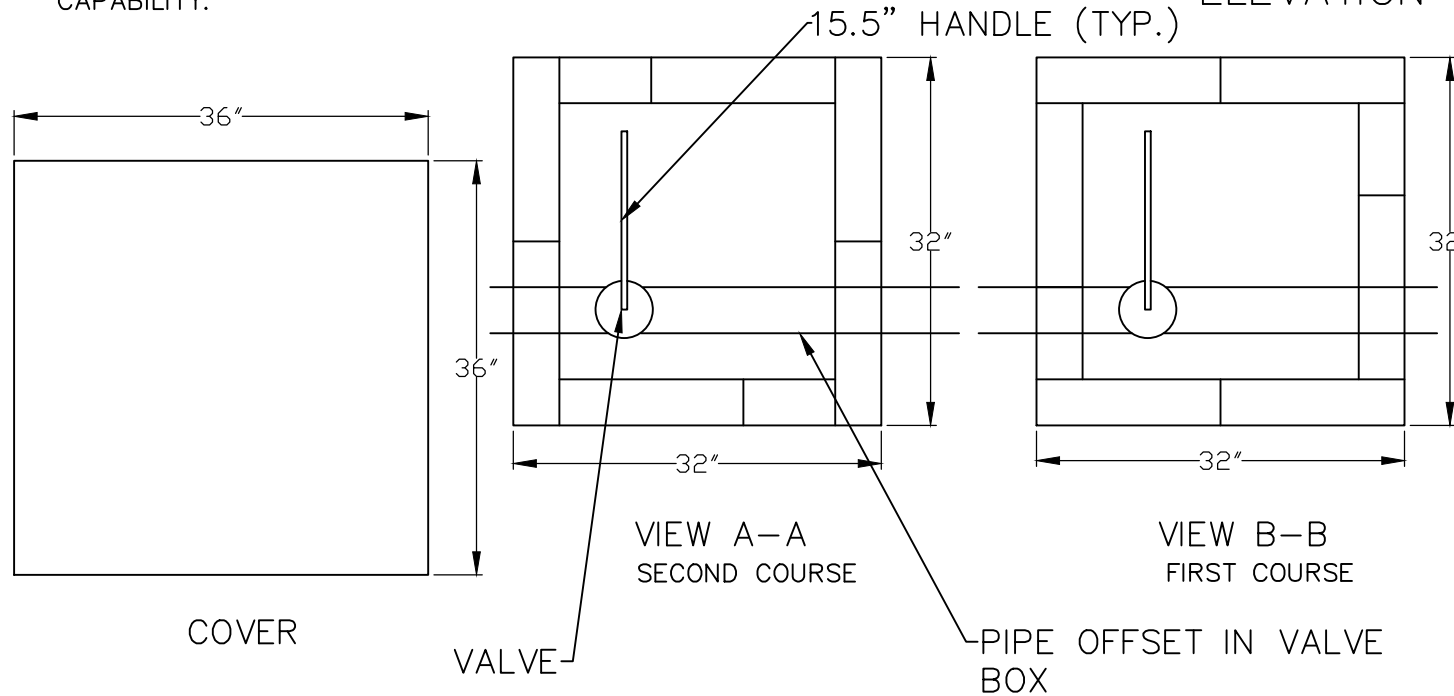
DRAWING: DT-007

NOTES:

1. THIS VALVE BOX IS INTENDED FOR USE WITH VALVES AND OTHER COMPONENTS WHICH REQUIRE PERIODIC ACCESS. BOX TO BE MODIFIED AS REQUIRED.
2. GRAVEL SHOULD BE USED AT BOTTOM OF BOX AS REQUIRED TO AID DRAINAGE AND ALLOW ACCESS TO BOX COMPONENTS.
3. USE MORTER BETWEEN BLOCKS.
4. SEE DRAWING FOR LOCKING LID IF REQUIRED.
5. PAINT LID USING RUST INHIBITING PAINT IF AVAILABLE.
6. DRAWING TO BE USED FOR GUIDANCE IN FABRICATING A BRICK AND MORTAR VALVE BOX. ALTERNATE DESIGNS SHOULD BE CONSIDERED GIVEN LOCAL MATERIALS AND MANUFACTURING CAPABILITY.



ELEVATION VIEW



MATERIALS	
Qt	DESCRIPTION
12	8" x 16" x 4" BLOCK
4	8" x 8" x 4" BLOCK
50lb	MORTAR
2 cu ft	COURSE AGGREGATE
1	COVER, STEEL, THICKNESS BETWEEN 14 GAUGE AND 1/4", A36 OR EQUAL

LAST REVISED: 10/27/18

DATE: 12/09/16

DRAWN BY: DC

CHECKED BY: XX

DRAWING: DT-009

PROJECT:

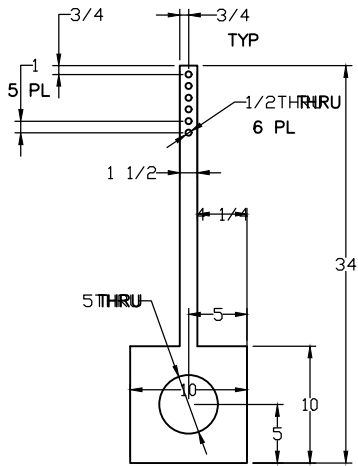
DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3

DRAWING TITLE:

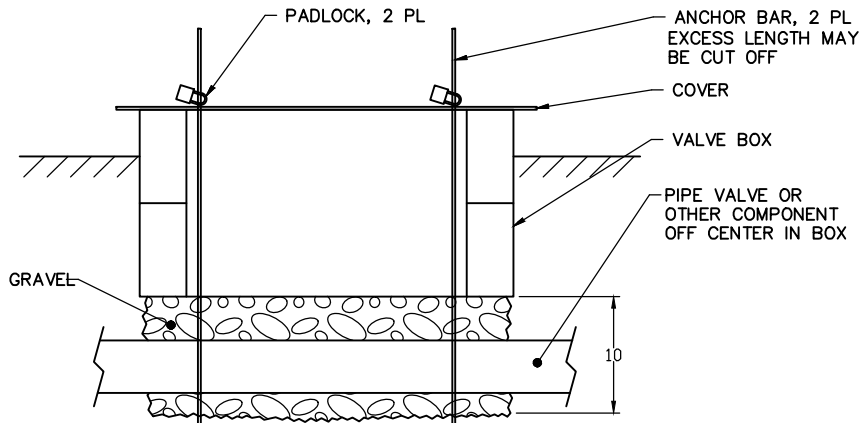
VALVE BOX WITH STANDARD COVER

NOTES:

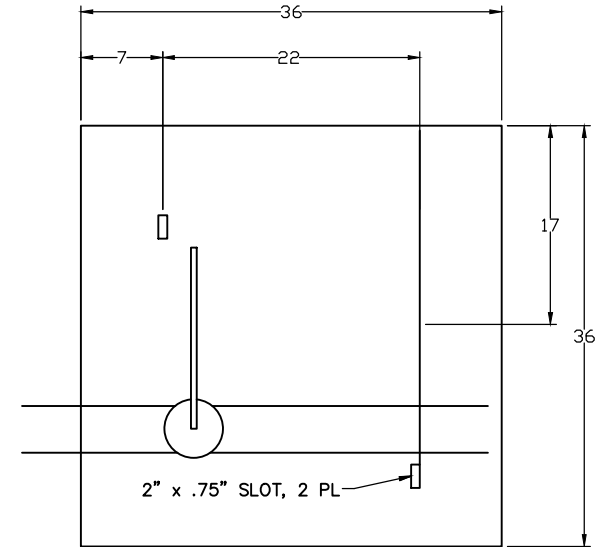
1. THIS VALVE BOX LOCKING COVER TO BE USED WITH BLOCK AND MORTER VALVE BOX.
2. ANCHOR BAR INTENDED FOR 4" PIPELINE. MODIFY AS REQUIRED FOR OTHER ANCHOR LOCATIONS.
3. ANCHOR BAR TO BE CUT AS REQUIRED TO FIT ACTUAL VALVE BOX.
4. PAINT LID USING RUST INHIBITING PAINT IF AVAILABLE.
5. DRAWING TO BE USED FOR GUIDANCE IN SECURING A LOCKING LID TO A VALVE BOX. ALTERNATE DESIGNS SHOULD BE CONSIDERED GIVEN LOCAL MATERIALS AND MANUFACTURING CAPABILITY.



ANCHOR BAR



ELEVATION VIEW



COVER

MATERIALS	
Qt	DESCRIPTION
1	VALVE BOX
3 cu ft	GRAVEL
1	COVER, 1/4" THK STEEL
2	ANCHOR BAR, 1/4" THK STEEL, A36 OR EQUAL
2	PADLOCK

LAST REVISED: 10/27/18

PROJECT:
DOMINICAN REPUBLIC WATER DISTRIBUTION SYSTEM - PHASE 3

DRAWING TITLE:
VALVE BOX WITH LOCK COVER

DATE: 12/09/16

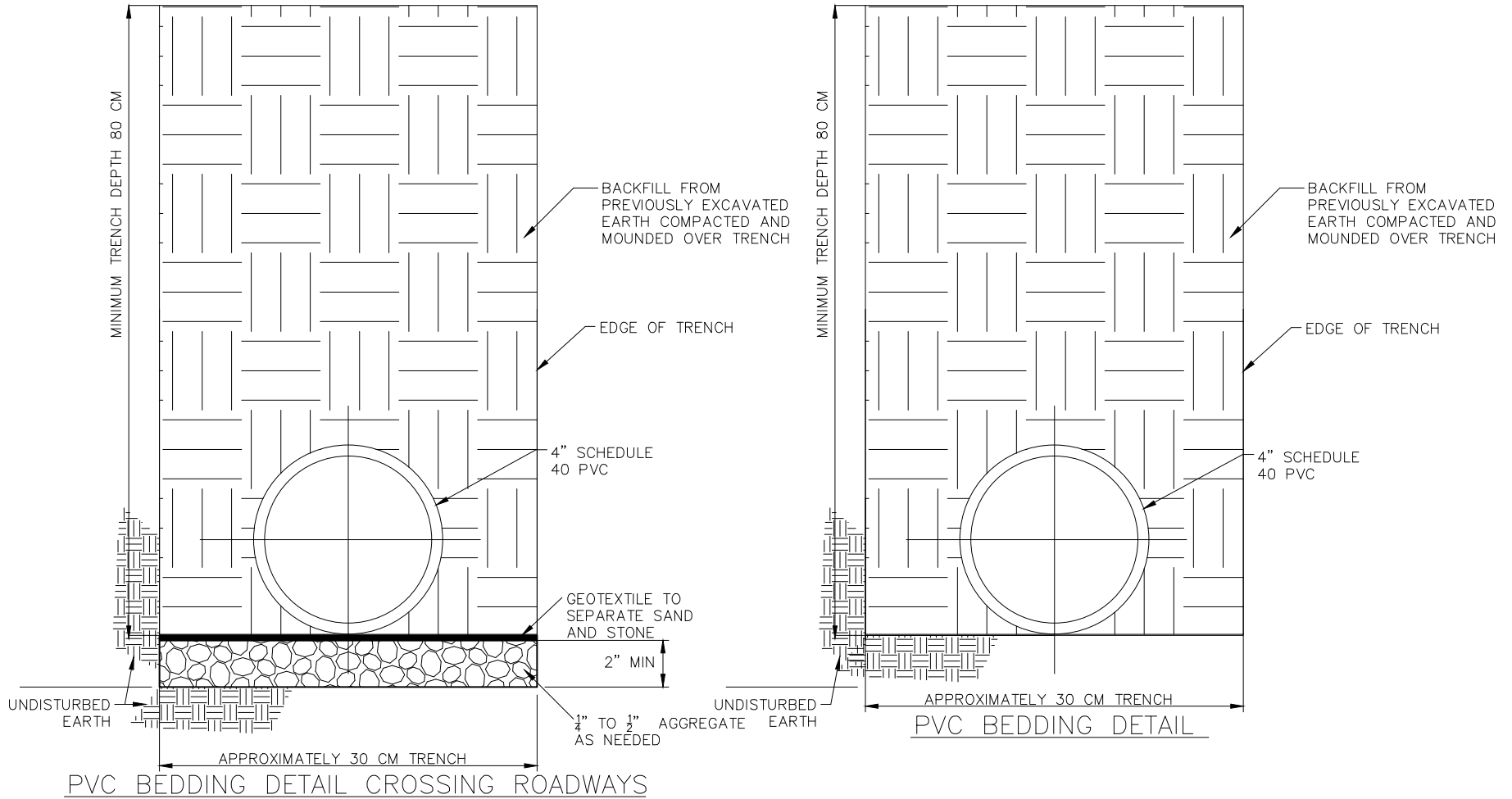
DRAWN BY: DC

CHECKED BY: XX

DRAWING: DT-010

NOTES:

1. BACKFILL DEPTH ABOVE PIPE SHOULD BE A MINIMUM OF 3 FEET FOR STRUCTURAL SUPPORT OF THE PIPE.
2. THE TOTAL TRENCH DEPTH WILL VARY DEPENDING ON THE SIZE OF PIPE. 4" PIPE WILL HAVE A MINIMUM TRENCH DEPTH OF 80 CM.
3. USE PVC BEDDING DETAIL CROSSING ROADWAYS WHERE THE PIPE CROSSES THE ROADWAY.



LAST REVISED: 02/01/19

PROJECT:

**DOMINICAN REPUBLIC WATER
DISTRIBUTION SYSTEM - PHASE 3**

DRAWING TITLE:

TRENCHING DETAILS

DATE: 12/09/16

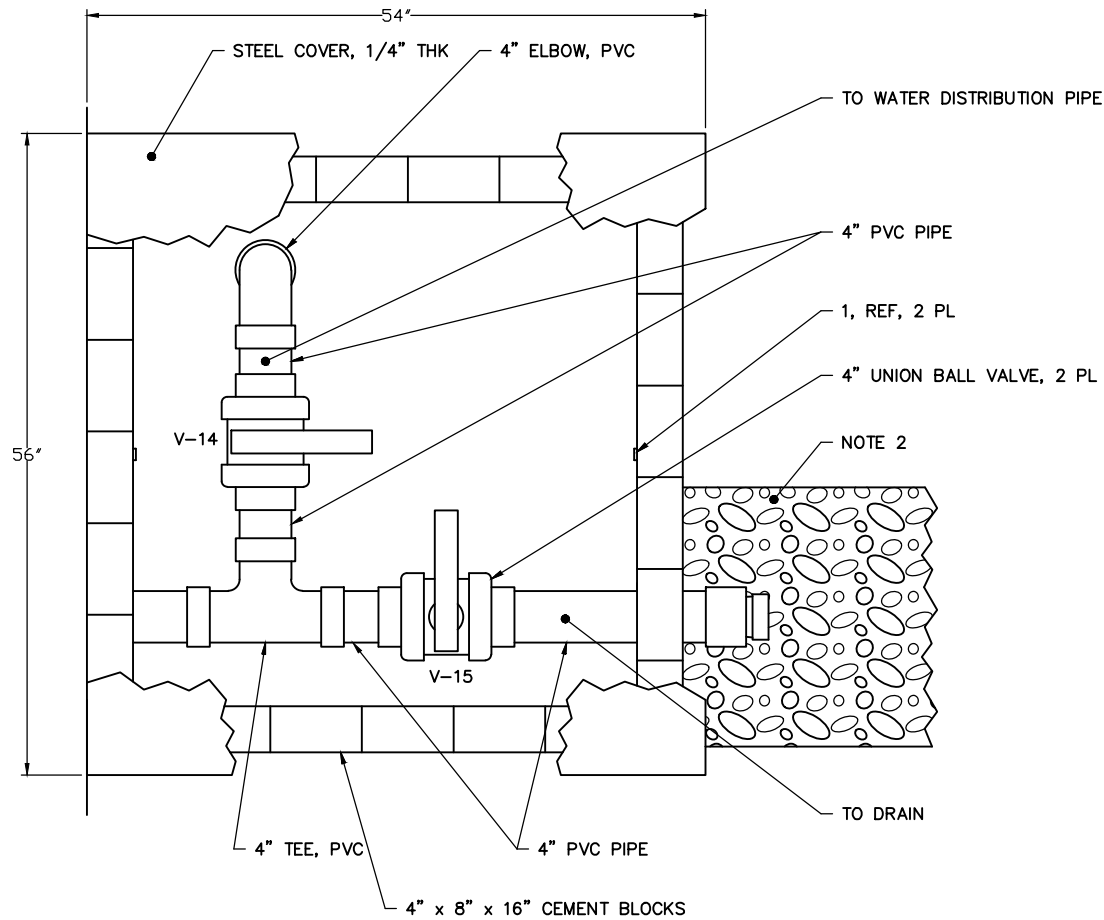
DRAWN BY: KG

CHECKED BY: DC

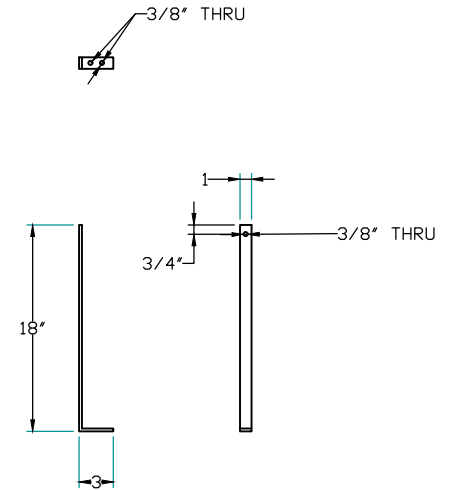
DRAWING: DT-011

NOTES:

1. WATER DISTRIBUTION PIPE IS ROUTED OUT OF TANK AND UNDERGROUND AT THIS POINT.
2. DRAIN SHALL BE SUITABLE FOR DRAINING THE FULL CONTENTS OF THE WATER TANK AT LOCATION SHOWN. CONSIDERATION MUST BE GIVEN TO THE AMOUNT OF GRAVEL PROVIDED AND DIRECTION OF DRAINAGE.
3. ITEM 1, ANCHOR BARS, ARE INTENDED TO ALLOW FOR THE STEEL BOX COVER TO BE LOCKED IN PLACE USING 2 PADLOCKS. LENGTH AND EXACT CONFIGURATION SHALL BE DETERMINED ONCE THE REMAINDER OF THE CEMENT BOX AND SYSTEM CAN BE DETERMINED. ANCHOR BARS SHOWN ARE INTENDED FOR GUIDANCE.
4. SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR GROUTING.



VIEW A-A



ITEM 1
PADLOCK ANCHOR BARS,
CARBON STEEL, Qt 2

LAST REVISED: 10/27/18

PROJECT:

**DOMINICAN REPUBLIC WATER
DISTRIBUTION SYSTEM - PHASE 3**

DRAWING TITLE:

**STORAGE TANK OUTLET -
PLAN VIEW**

DATE: 12/09/16

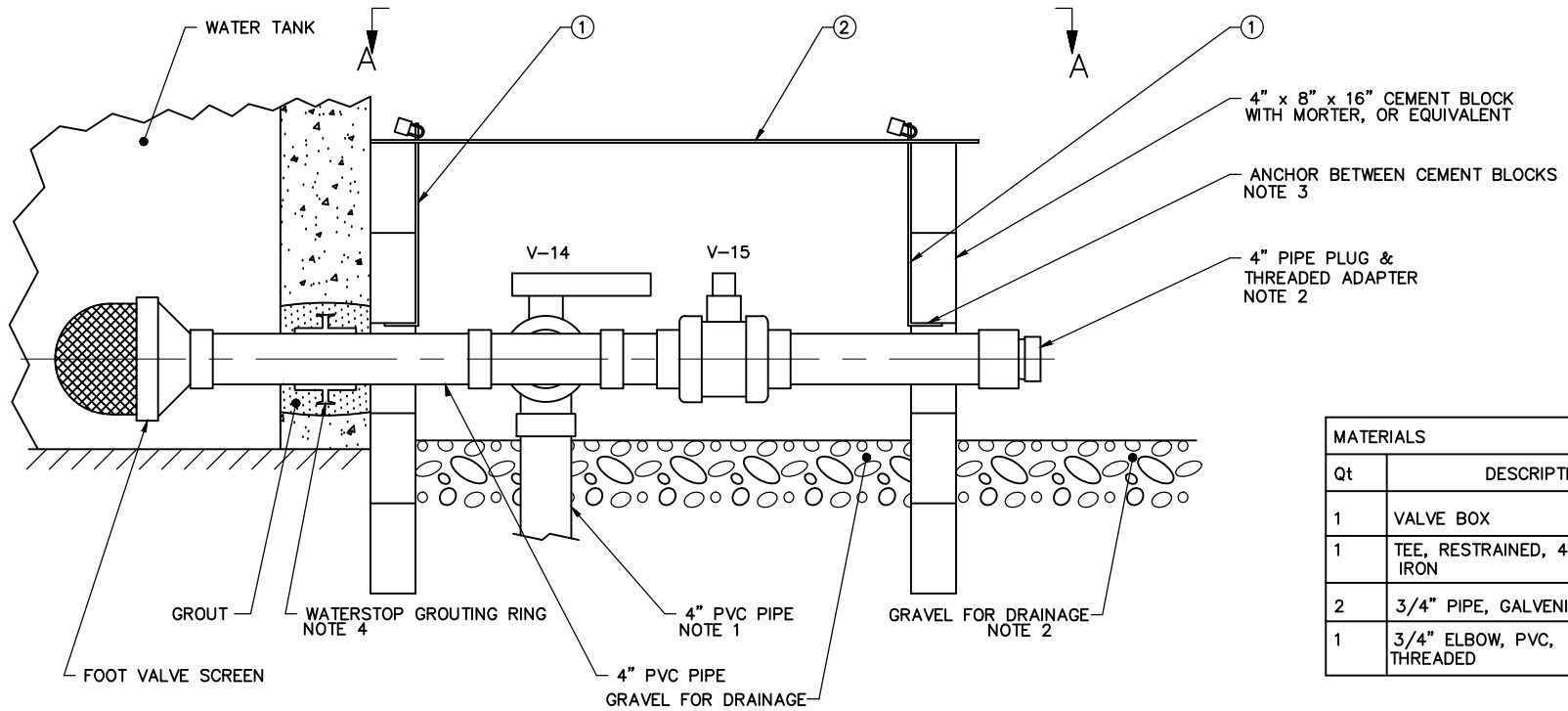
DRAWN BY: DC

CHECKED BY: XX

DRAWING: DT-012

NOTES:

1. WATER DISTRIBUTION PIPE IS ROUTED OUT OF TANK AND UNDERGROUND AT THIS POINT.
2. DRAIN SHALL BE SUITABLE FOR DRAINING THE FULL CONTENTS OF THE WATER TANK AT LOCATION SHOWN. CONSIDERATION MUST BE GIVEN TO THE AMOUNT OF GRAVEL PROVIDED AND DIRECTION OF DRAINAGE.
3. ITEM 1, ANCHOR BARS, ARE INTENDED TO ALLOW FOR THE STEEL BOX COVER TO BE LOCKED IN PLACE USING 2 PADLOCKS. LENGTH AND EXACT CONFIGURATION SHALL BE DETERMINED ONCE THE REMAINDER OF THE CEMENT BOX AND SYSTEM CAN BE DETERMINED. ANCHOR BARS SHOWN ARE INTENDED FOR GUIDANCE.
4. SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR GROUTING.



MATERIALS	
Qt	DESCRIPTION
1	VALVE BOX
1	TEE, RESTRAINED, 4", DUCTILE IRON
2	3/4" PIPE, GALVENIZED, TBE
1	3/4" ELBOW, PVC, THREADED

ELEVATION VIEW

LAST REVISED: 10/27/18

PROJECT:

**DOMINICAN REPUBLIC WATER
DISTRIBUTION SYSTEM - PHASE 3**

DRAWING TITLE:

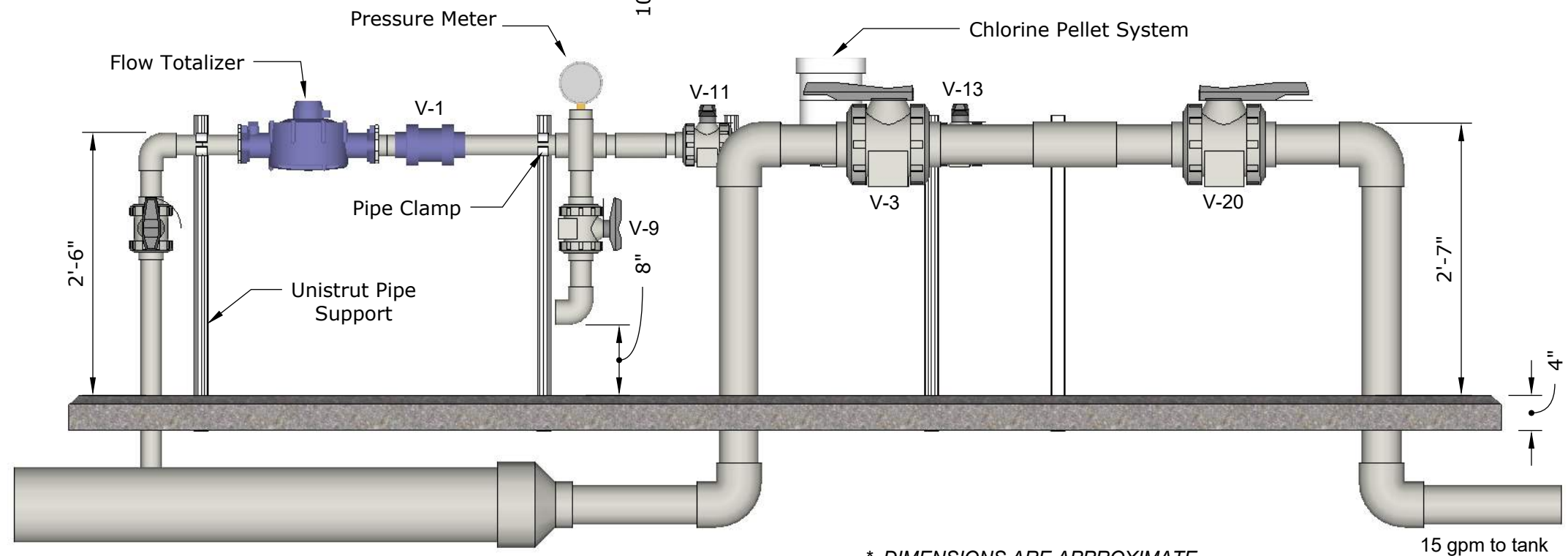
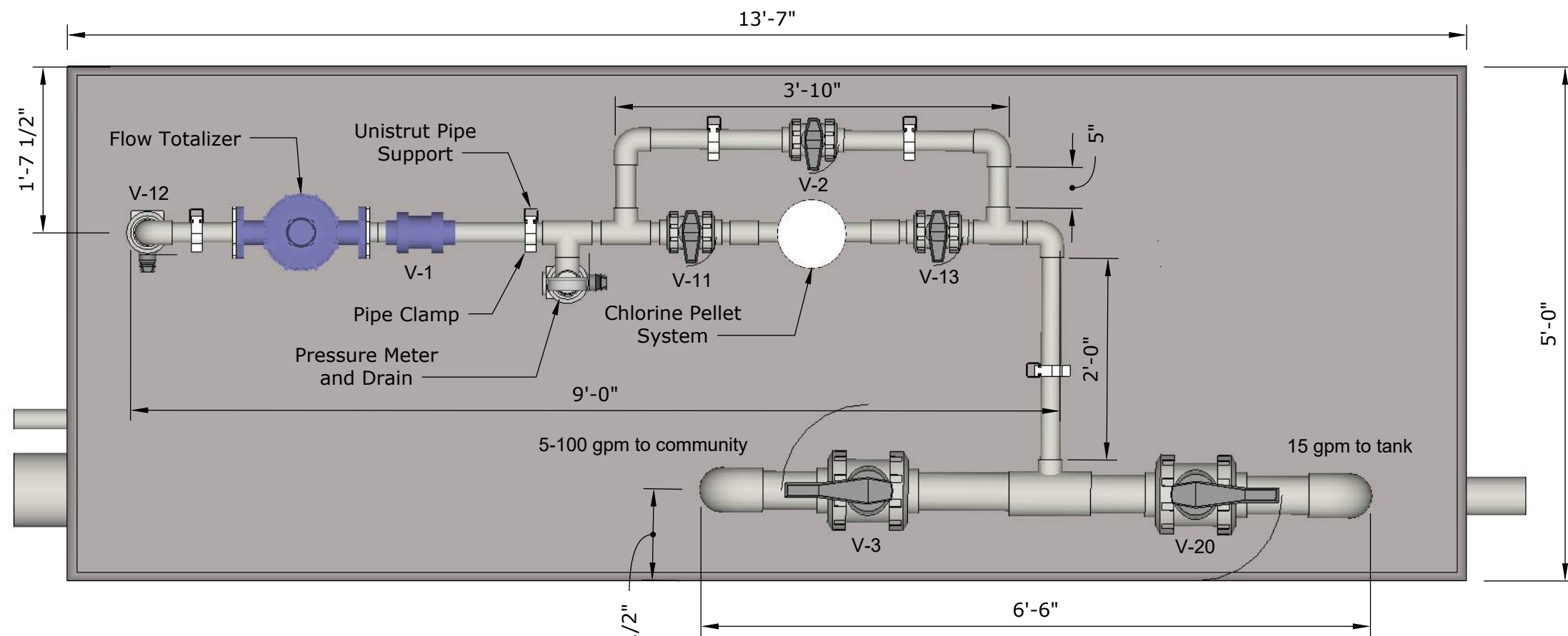
**STORAGE TANK
OUTLET- SECTION VIEW**

DATE: 12/09/16

DRAWN BY: DC

CHECKED BY: XX

DRAWING: DT-013



To community - 12" Diameter Pipe - 60' for Chlorine Retention

* DIMENSIONS ARE APPROXIMATE



Engineers Without Borders
Lehigh Valley Professionals

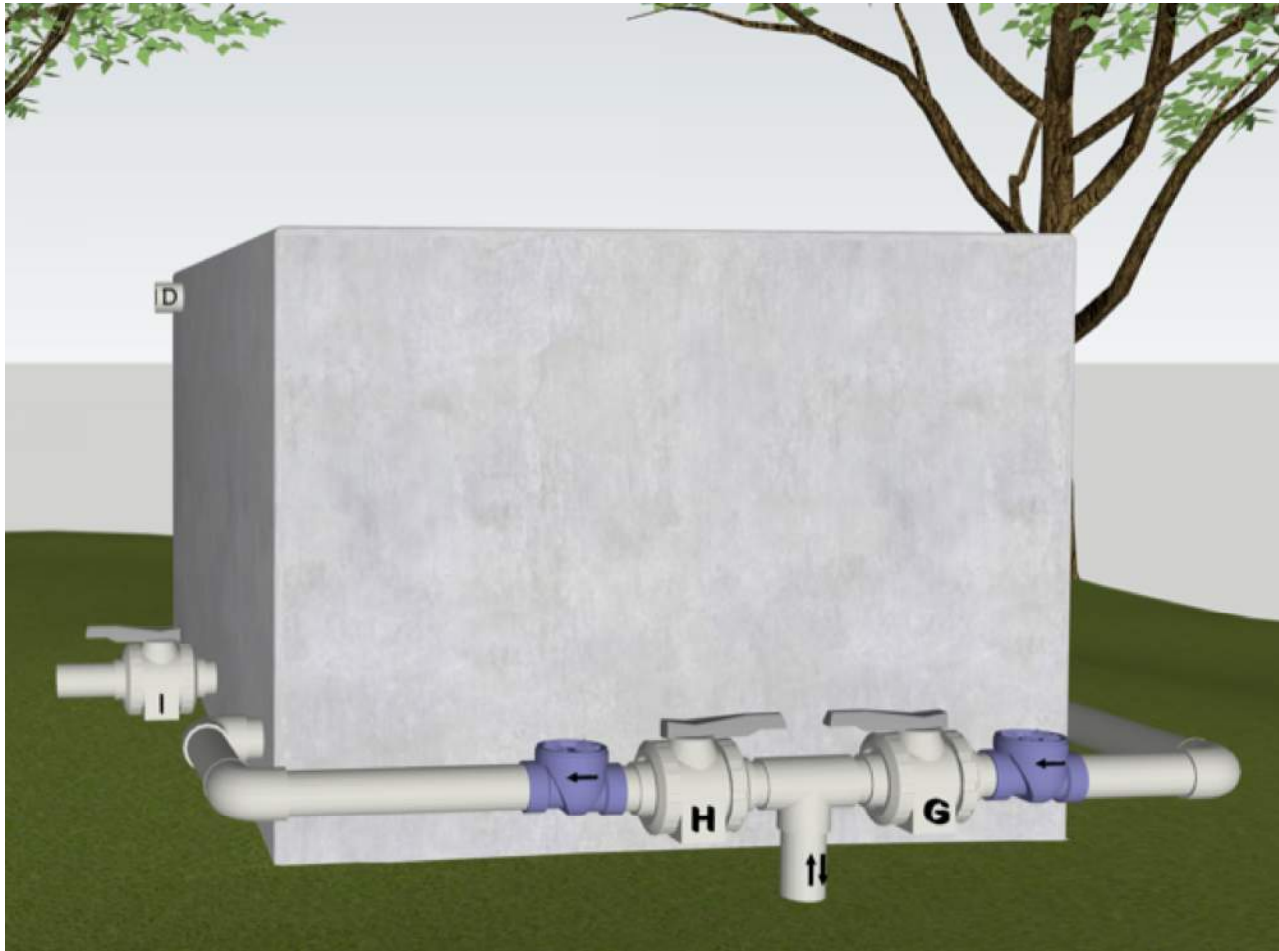
Cabeza de Toro Water Supply System

Water Distribution Pad

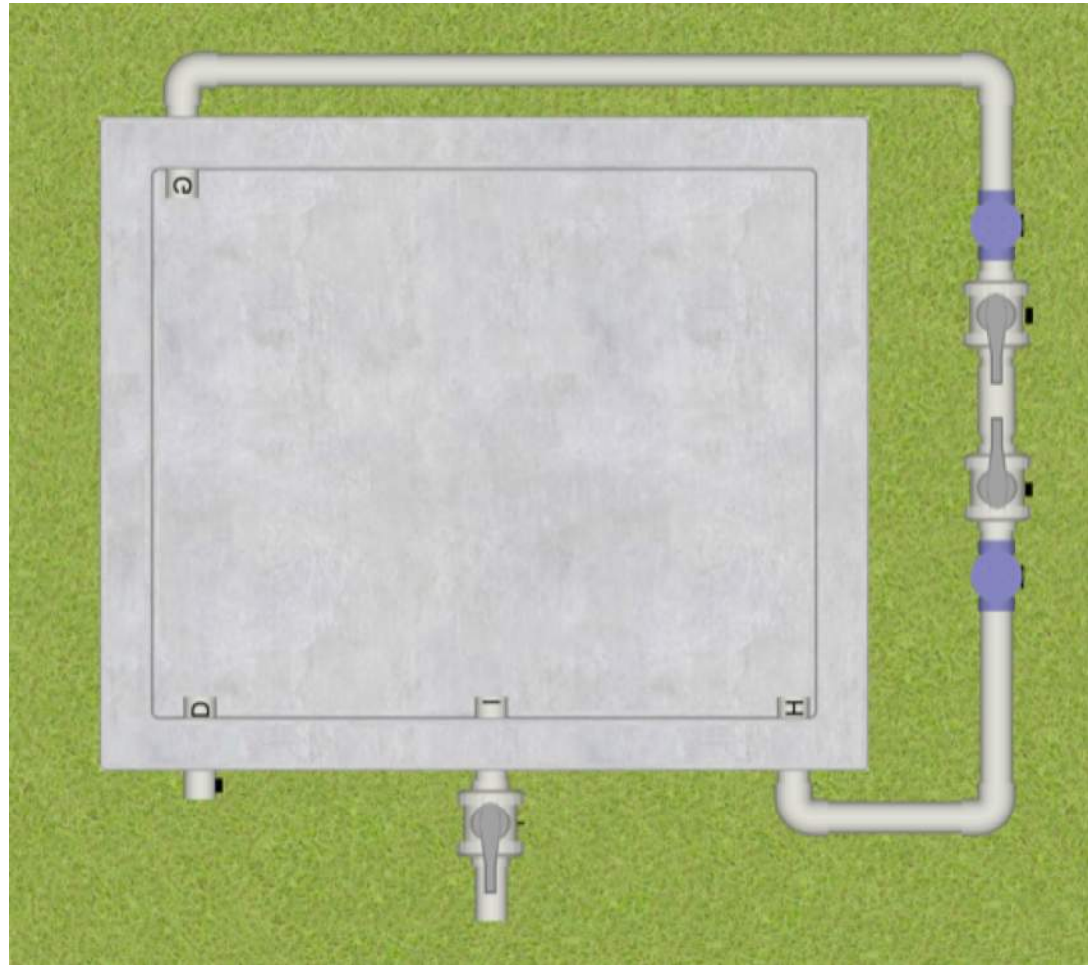
CdT Water Distribution Pad.skb.layout

August 26, 2019

P1.01



CABEZA DE TORO WATER TANK - ISO VIEW
LAST REVISED 09/17/2019



CABEZA DE TORO WATER TANK - TOP VIEW
LAST REVISED - 09/17/2019