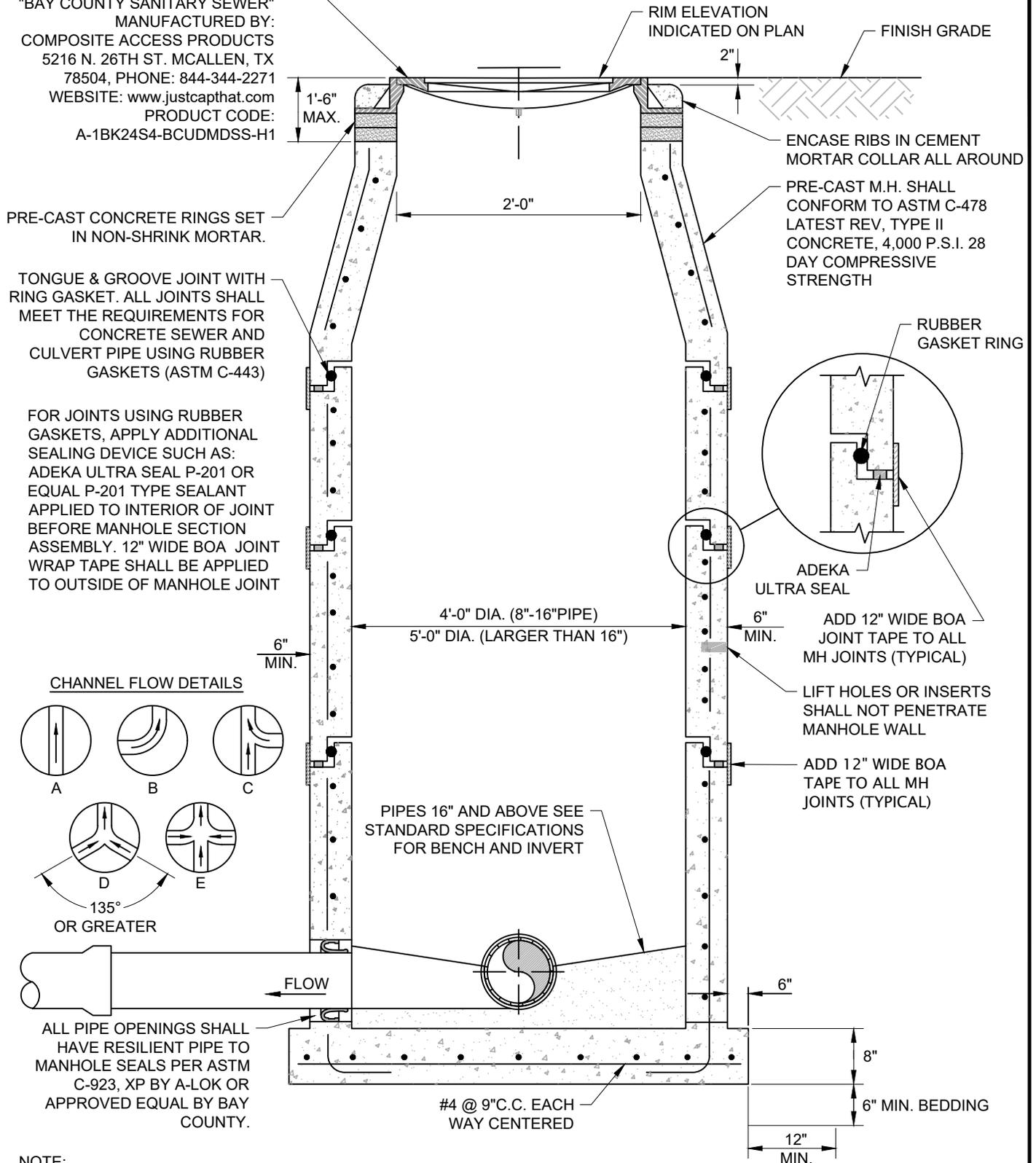


COMPOSITE MANHOLE COVER, OR APPROVED EQUAL, TO BE MARKED "BAY COUNTY SANITARY SEWER" MANUFACTURED BY: COMPOSITE ACCESS PRODUCTS 5216 N. 26TH ST. MCALLEN, TX 78504, PHONE: 844-344-2271 WEBSITE: www.justcapthat.com PRODUCT CODE: A-1BK24S4-BCUDMDSS-H1

NOTE: MANHOLE INTERIOR SHALL BE LINED WITH AGRU HDPE SURE GRIP, GREEN MONSTER STRUCTURAL COATING (GML), SPECTRASHIELD, OR APPROVED EQUAL.



NOTE:

DROP MANHOLES, MANHOLES WITH OPPOSING FLOW (DETAILS D & E), TWO MANHOLES IMMEDIATELY UPSTREAM OF A LIFT STATION WET WELL, MANHOLES WITH GRAVITY SEWERS GREATER THAN OR EQUAL TO 12 INCHES IN DIAMETER, MANHOLES RECEIVING A FORCE MAIN, AND THE FIRST TWO GRAVITY MANHOLES DOWNSTREAM OF MANHOLES RECEIVING A FORCE MAIN SHALL HAVE AN APPROVED LINER (SEE NOTE ABOVE).



BAY COUNTY UTILITIES STANDARD DETAILS

STANDARD PRECAST SANITARY SEWER MANHOLE FOR UNDISTURBED FLOW

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-1**

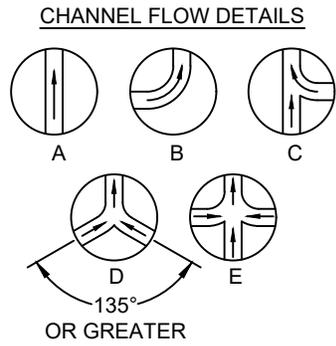
COMPOSITE MANHOLE COVER, OR APPROVED EQUAL, TO BE MARKED "BAY COUNTY SANITARY SEWER" MANUFACTURED BY: COMPOSITE ACCESS PRODUCTS 5216 N. 26TH ST. MCALLEN, TX 78504, PHONE: 844-344-2271 WEBSITE: www.justcapthat.com PRODUCT CODE: A-1BK24S4-BCUDMDSS-H1

NOTE: MANHOLE INTERIOR SHALL BE LINED WITH AGRV HDPE SURE GRIP, GREEN MONSTER STRUCTURAL COATING (GML), SPECTRASHIELD, OR APPROVED EQUAL.

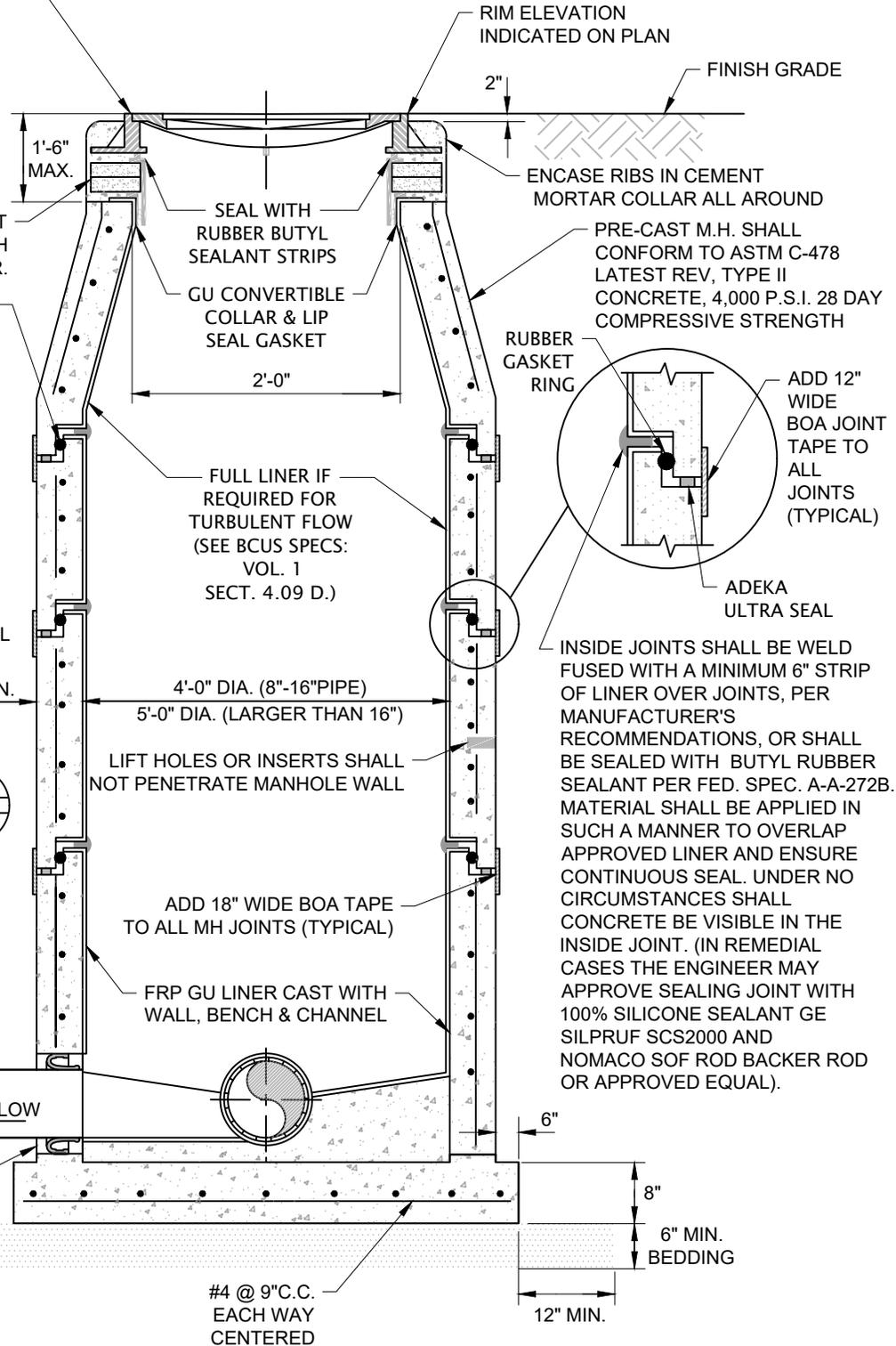
PRE-CAST CONCRETE RINGS SET IN NON-SHRINK MORTAR WITH A GU CONVERTIBLE COLLAR.

TONGUE & GROOVE JOINT WITH RING GASKET. ALL JOINTS SHALL MEET THE REQUIREMENTS FOR CONCRETE SEWER AND CULVERT PIPE USING RUBBER GASKETS (ASTM C-443)

FOR JOINTS USING RUBBER GASKETS, APPLY ADDITIONAL SEALING DEVICE SUCH AS: ADEKA ULTRA SEAL P-201 OR EQUAL P-201 TYPE SEALANT APPLIED TO INTERIOR OF JOINT BEFORE MANHOLE SECTION ASSEMBLY. 12" WIDE BOA JOINT WRAP TAPE SHALL BE APPLIED TO OUTSIDE OF MANHOLE JOINT



ALL PIPE OPENINGS SHALL HAVE RESILIENT PIPE TO MANHOLE SEALS PER ASTM C-923, XP BY A-LOK OR APPROVED EQUAL BY BAY COUNTY.



NOTE: DROP MANHOLES, MANHOLES WITH OPPOSING FLOW (DETAILS D & E), TWO MANHOLES IMMEDIATELY UPSTREAM OF A LIFT STATION WET WELL, MANHOLES WITH GRAVITY SEWERS GREATER THAN OR EQUAL TO 12 INCHES IN DIAMETER, MANHOLES RECEIVING A FORCE MAIN, AND THE FIRST TWO GRAVITY MANHOLES DOWNSTREAM OF MANHOLES RECEIVING A FORCE MAIN SHALL HAVE AN APPROVED LINER (SEE NOTE ABOVE).

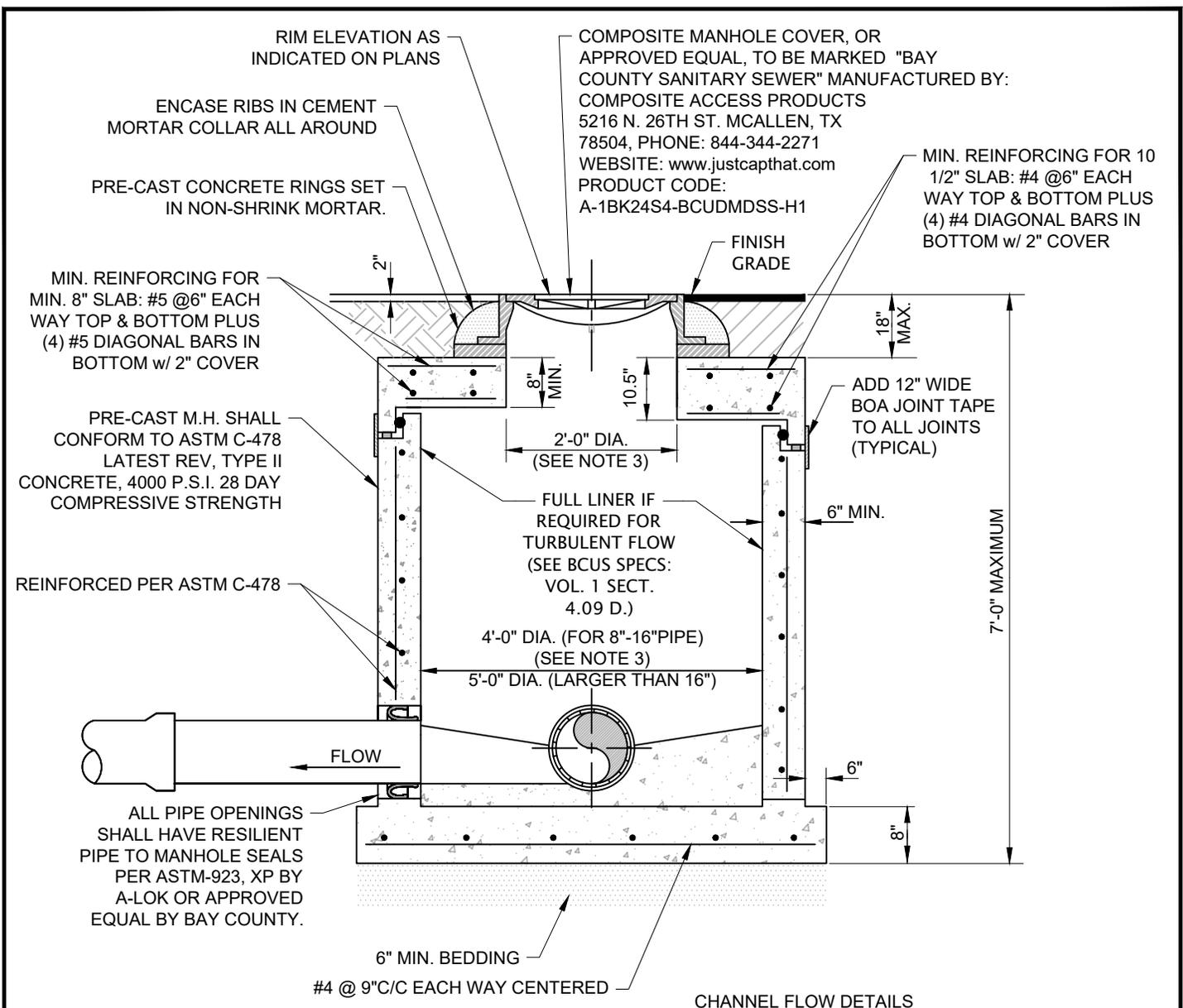


BAY COUNTY UTILITIES STANDARD DETAILS

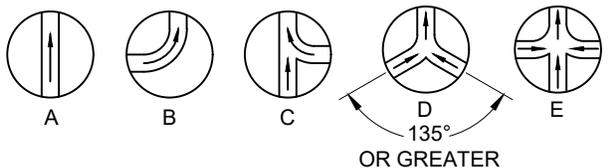
STANDARD PRECAST SANITARY SEWER MANHOLE FOR TURBULENT FLOW

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-2**



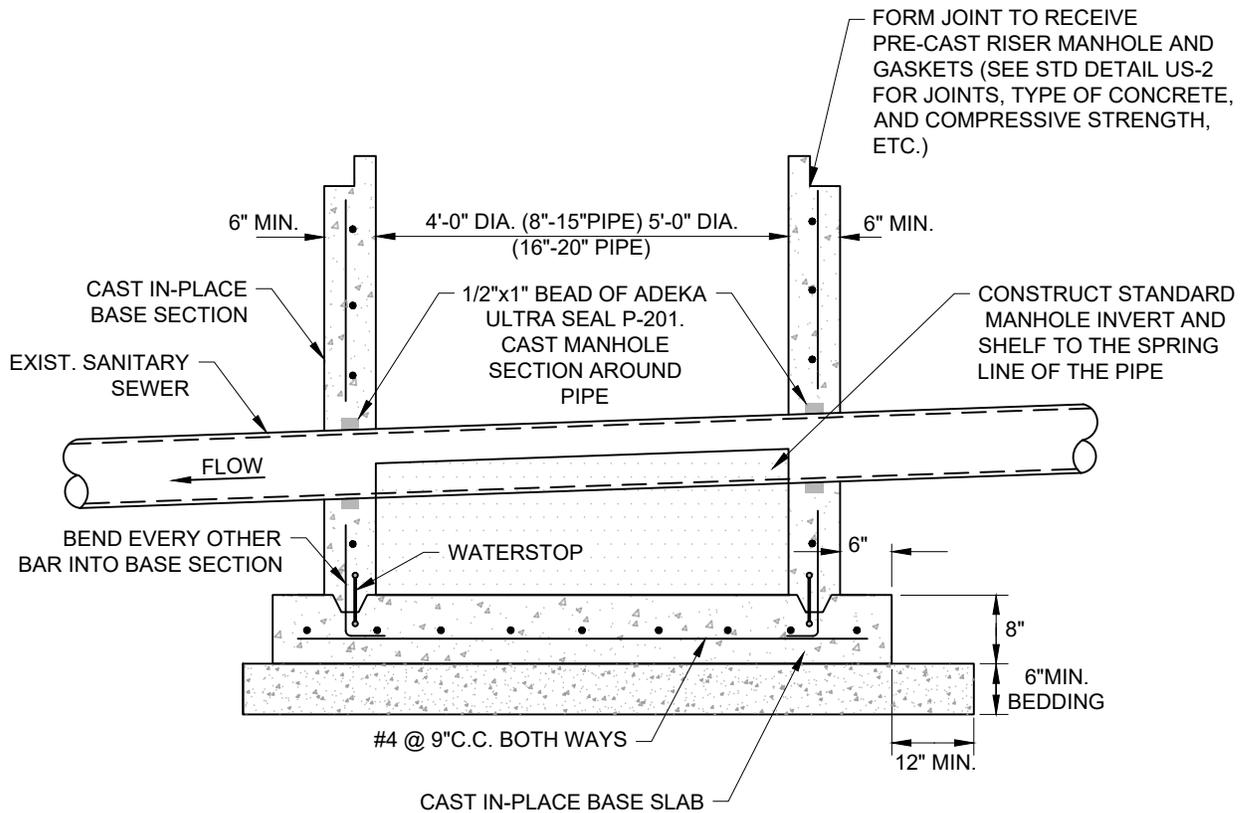
NOTE: MANHOLE INTERIOR SHALL BE LINED WITH AGRU HDPE SURE GRIP, GREEN MONSTER STRUCTURAL COATING (GML), SPECTRASHIELD, OR APPROVED EQUAL.



NOTES:

1. DROP MANHOLES, MANHOLES WITH OPPOSING FLOW (DETAILS D & E), MANHOLES IMMEDIATELY UPSTREAM OF A LIFT STATION WET WELL, MANHOLES WITH GRAVITY SEWERS GREATER THAN OR EQUAL TO 12 INCHES IN DIAMETER, MANHOLES RECEIVING A FORCE MAIN AND THE FIRST TWO GRAVITY MANHOLES DOWNSTREAM OF MANHOLES RECEIVING A FORCE MAIN SHALL HAVE AN APPROVED LINER, OR ARMOROCK PRECAST POLYMER CONCRETE MANHOLE AND BASE.
2. LIFT HOLES OR INSERTS SHALL NOT PENETRATE THE WALLS OF THE MANHOLES.
3. A MINIMUM COVER OF 3' OVER THE GRAVITY SEWER SHALL BE PROVIDED. FOR MANHOLES WITH LESS THAN 4" OF COVER OVER THE GRAVITY SEWER, THE MANHOLE INSIDE DIAMETER SHALL BE 5'-0" AND THE FRAME AND COVER SHALL BE 32" "PAMREX" WITH 32" OPENING.
4. SEE WW-9 AND WW-9A FOR ROUND CONCRETE COLLAR SPECIFICATIONS FOR MANHOLE COVERS.

| | | | |
|---|--|---|--|
|  | <p>BAY COUNTY UTILITIES STANDARD DETAILS</p> | <p>STANDARD PRECAST SANITARY SEWER MANHOLE FOR SHALLOW CONDITION</p> | <p>DATE : MAY 2023 SCALE : NTS</p> |
| | | | |



NOTES:

1. PRIOR TO ANY EXCAVATION OVER THE PIPE, A TV RECORDING OF THE EXISTING SEWER MAIN SHALL OCCUR BETWEEN THE UPSTREAM AND DOWNSTREAM MANHOLES WHILE THE COUNTY INSPECTOR IS PRESENT.
2. THE CONTRACTOR SHALL CAREFULLY EXCAVATE AROUND AND PROPERLY SUPPORT THE EXISTING PIPE.
3. PREFERRED CONSTRUCTION IS BY "CUTTING-IN" A STANDARD SANITARY SEWER MANHOLE WITH A TEMPORARY FLOW BY-PASS SYSTEM OR FLOW THROUGH PLUG.
4. SEWER LINES GREATER THAN 20" REQUIRE SPECIAL DESIGN AND APPROVAL BY BAY COUNTY UTILITIES ENGINEERING.
5. ALLOW SUFFICIENT CURING TIME, 24-36 HOURS, FOR THE ADEKA ULTRA-SEAL P-201, BEFORE POURING CONCRETE.
6. FOLLOWING SATISFACTORY CURING OF THE INVERT CHANNEL AND SHELF, THE CONTRACTOR SHALL CUT AND REMOVE THE TOP HALF OF THE EXISTING PIPE WITHIN THE MANHOLE, TAKING CARE NOT TO ALLOW ANY PIECES TO BE WASHED DOWN STREAM IN THE PIPE. CUTTING OF THE PIPE SHALL BE IN A WORKMAN LIKE MANNER, PROVIDING A SMOOTH AND EVEN FINISHED PRODUCT.
7. A TV RECORDING OF THE SEWER MAIN SHALL ALSO OCCUR AFTER CONSTRUCTION WHILE THE COUNTY INSPECTOR IS PRESENT. PIPE DEFLECTION SHALL NOT DEVIATE BY MORE THAN 1 INCH FROM THE DESIGN LINE.
8. THERE SHALL BE NO VISIBLE LEAKS IN THE MANHOLE.

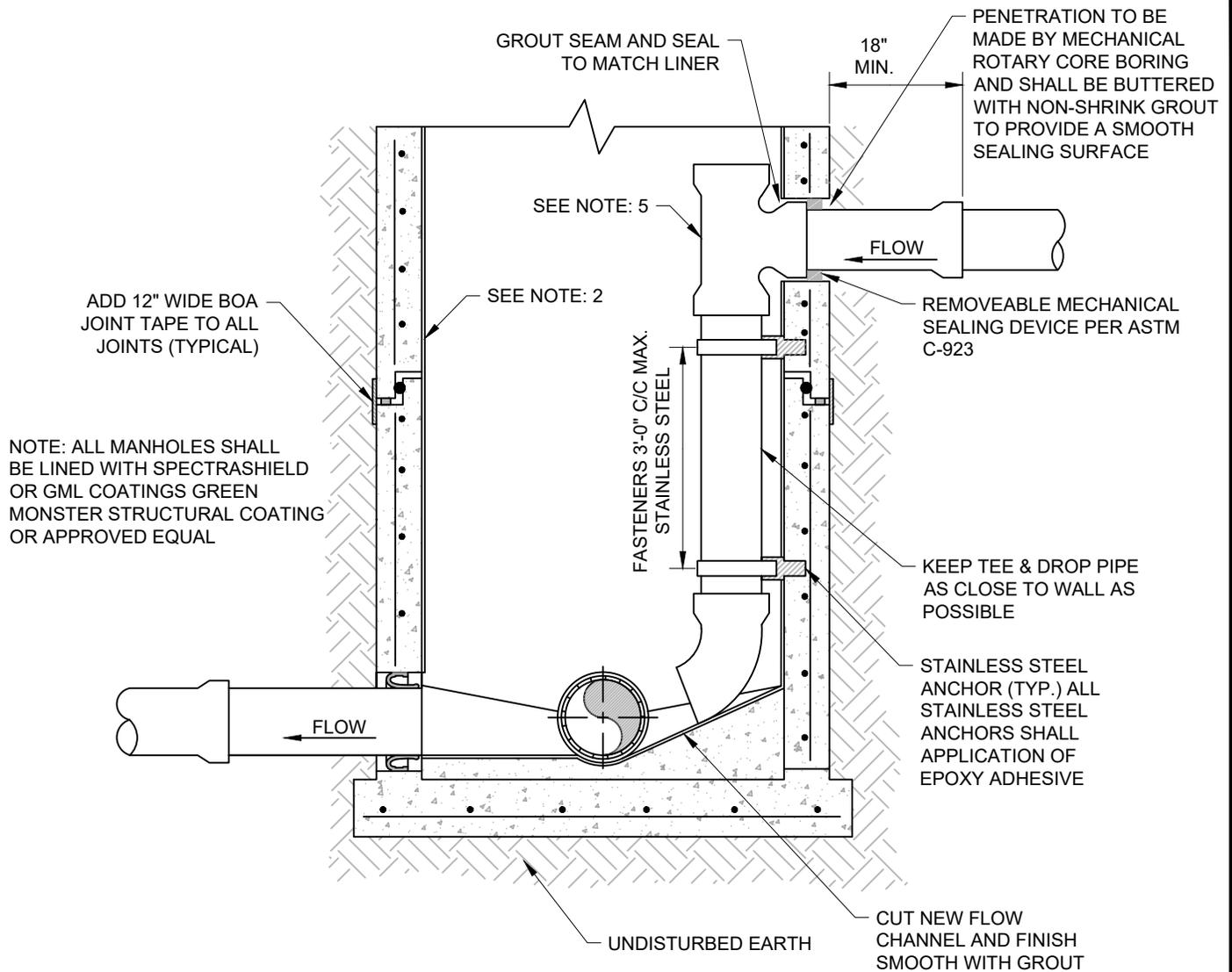


BAY COUNTY
UTILITIES
STANDARD
DETAILS

**SANITARY SEWER MANHOLE
OVER EXISTING SEWER LINE**

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-4**



NOTE: ALL MANHOLES SHALL BE LINED WITH SPECTRASHIELD OR GML COATINGS GREEN MONSTER STRUCTURAL COATING OR APPROVED EQUAL

NOTES:

1. PIPE AND FITTINGS SHALL BE PVC ASTM D-3034 SDR 26.
2. THIS IS AN INTERCEPT MANHOLE AND MUST BE LINED WITH APPROVED LINER OR ARMOROCK PRECAST POLYMER CONCRETE MANHOLE AND BASE. APPROVED SPRAY-ON LINERS MAY BE USED FOR EXISTING MANHOLES. REFER TO VOL. 1, SECTION 4.09 D. OF THE BAY COUNTY UTILITY STANDARDS.
3. INSIDE DROP MANHOLES ARE REQUIRED WHEN THE VERTICAL DISTANCE BETWEEN THE LOWEST EXISTING MANHOLE INVERT AND THE HIGHEST PIPE INVERT IS 2'-0" OR GREATER.
4. ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL.
5. PVC TEE MAY BE SUBSTITUTED WITH A PLASTIC COMPOSITE/FIBERGLASS DROP BOWL AS MANUFACTURED BY RELINER/DURAN.



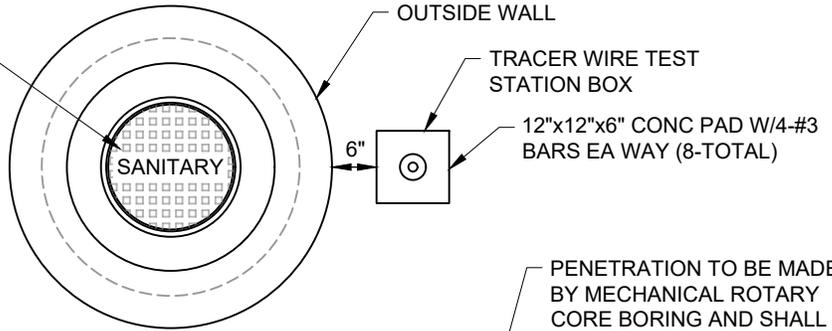
BAY COUNTY
UTILITIES
STANDARD
DETAILS

SANITARY SEWER MANHOLE WITH INSIDE GRAVITY DROP

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-5**

COMPOSITE MANHOLE COVER, OR APPROVED EQUAL, TO BE MARKED "BAY COUNTY SANITARY SEWER" MANUFACTURED BY: COMPOSITE ACCESS PRODUCTS
 5216 N. 26TH ST. MCALLEN, TX 78504, PHONE: 844-344-2271
 WEBSITE: www.justcapthat.com
 PRODUCT CODE: A-1BK24S4-BCUDMDSS-H1

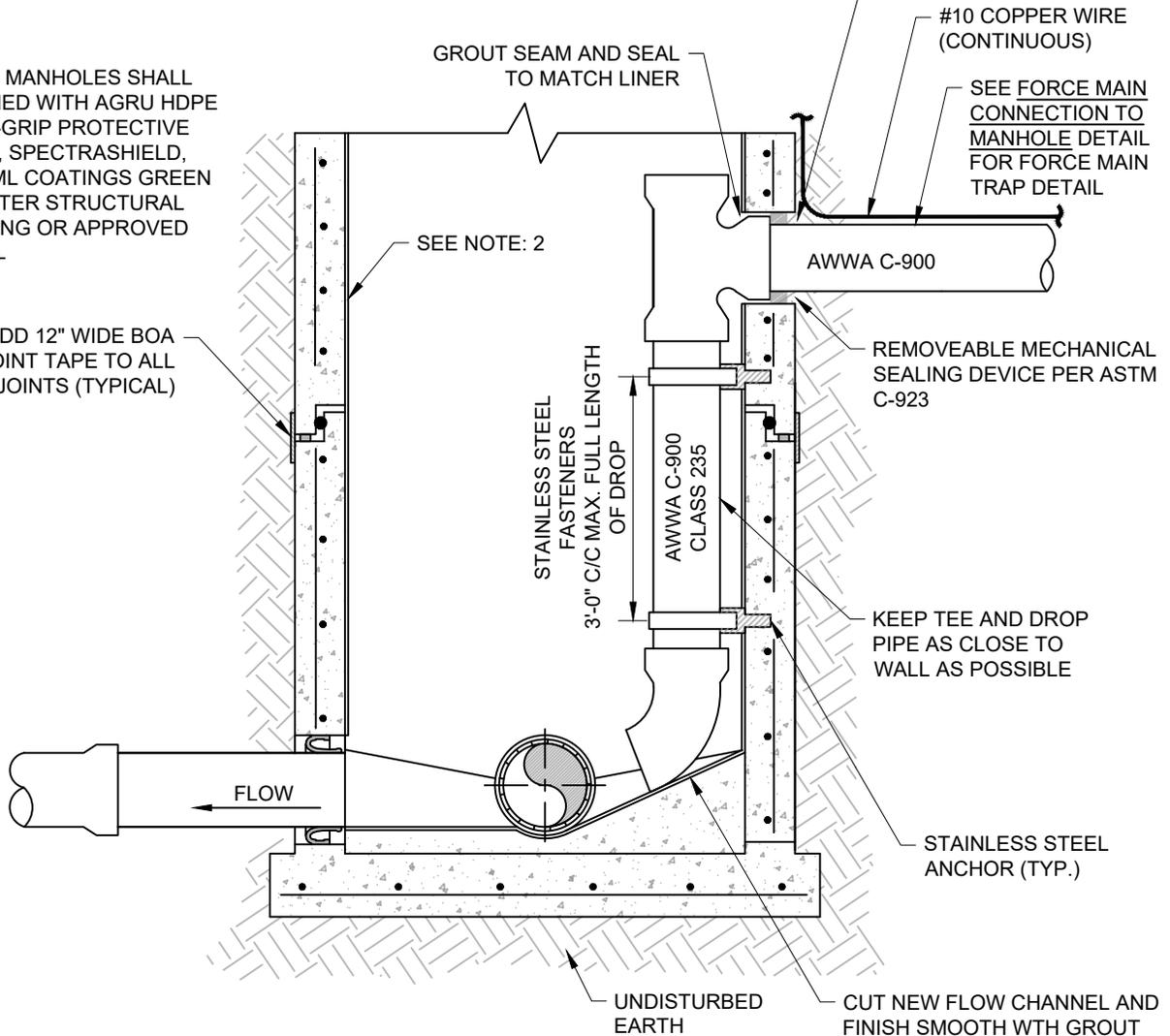


PLAN

PENETRATION TO BE MADE BY MECHANICAL ROTARY CORE BORING AND SHALL BE BUTTERED WITH NON-SHRINK GROUT TO PROVIDE A SMOOTH SEALING SURFACE

NOTE: MANHOLES SHALL BE LINED WITH AGRU HDPE SURE-GRIP PROTECTIVE LINER, SPECTRASHIELD, OR GML COATINGS GREEN MONSTER STRUCTURAL COATING OR APPROVED EQUAL

ADD 12" WIDE BOA JOINT TAPE TO ALL JOINTS (TYPICAL)



GROUT SEAM AND SEAL TO MATCH LINER

SEE NOTE: 2

STAINLESS STEEL FASTENERS 3'-0" C/C MAX. FULL LENGTH OF DROP

AWWA C-900

#10 COPPER WIRE (CONTINUOUS)

SEE FORCE MAIN CONNECTION TO MANHOLE DETAIL FOR FORCE MAIN TRAP DETAIL

REMOVEABLE MECHANICAL SEALING DEVICE PER ASTM C-923

KEEP TEE AND DROP PIPE AS CLOSE TO WALL AS POSSIBLE

STAINLESS STEEL ANCHOR (TYP.)

UNDISTURBED EARTH

CUT NEW FLOW CHANNEL AND FINISH SMOOTH WTH GROUT

NOTES:

1. ALL FITTINGS SHALL BE AWWA C-907. DROP PIPE SHALL BE AWWA C-900 (CLASS 235, DR 18).
2. THIS IS AN INTERCEPT MANHOLE AND MUST BE LINED WITH APPROVED LINER OR ARMOROCK PRECAST POLYMER CONCRETE MANHOLE AND BASE. APPROVED SPRAY-ON LINERS MAY BE USED FOR EXISTING MANHOLES. REFER TO VOL. 1, SECTION 4.09 D. OF THE BAY COUNTY UTILITY STANDARDS.
3. INSIDE DROP MANHOLES ARE REQUIRED WHEN THE VERTICAL DISTANCE BETWEEN THE LOWEST EXISTING MANHOLE INVERT AND THE HIGHEST PIPE INVERT IS 2'-0" OR GREATER.
4. ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL.
5. TRAP IS REQUIRED IN FORCE MAIN BEFORE ENTERING MANHOLE.



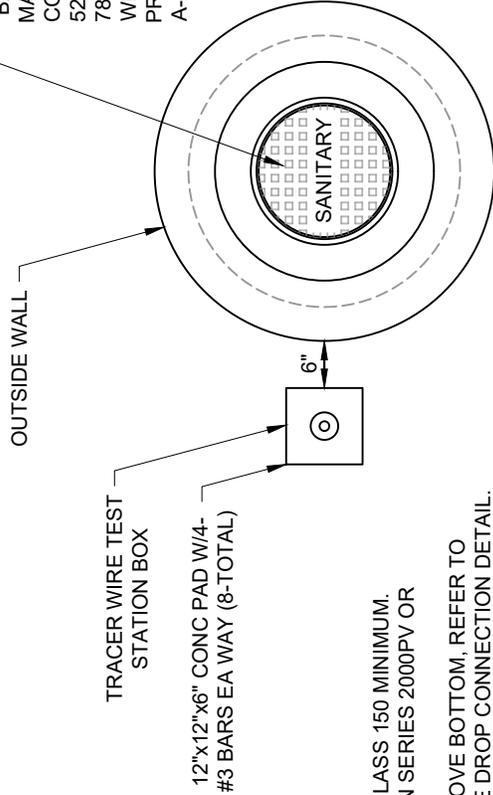
BAY COUNTY UTILITIES STANDARD DETAILS

SANITARY SEWER MANHOLE WITH FORCE MAIN INFLOW AND INSIDE GRAVITY DROP

DATE : MAY 2023
 SCALE : NTS

FIGURE : WW-6

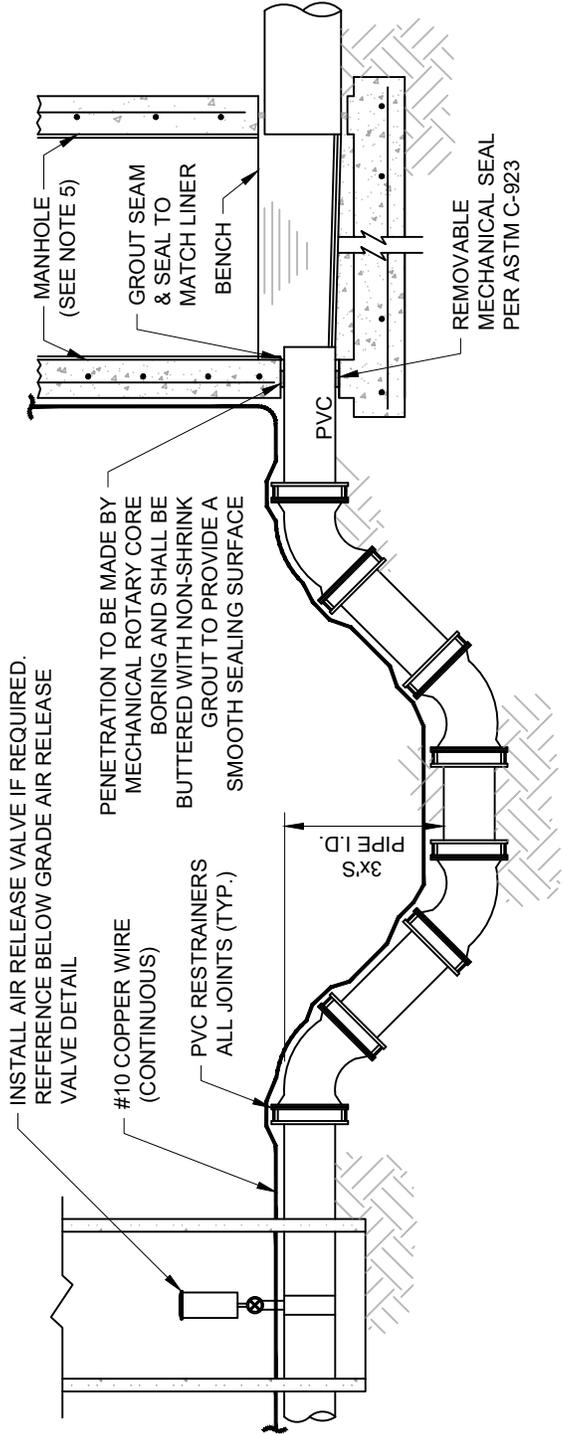
COMPOSITE MANHOLE COVER, OR APPROVED EQUAL, TO BE MARKED "BAY COUNTY SANITARY SEWER" MANUFACTURED BY:
 COMPOSITE ACCESS PRODUCTS
 5216 N. 26TH ST. MCALLEN, TX 78504, PHONE: 844-344-2271
 WEBSITE: www.justcapthat.com
 PRODUCT CODE:
 A-1BK24S4-BCUDMDSS-H1



NOTES:

1. PIPE FITTINGS TO BE AWWA C-907, CLASS 150 MINIMUM.
2. PVC RESTRAINERS TO BE EBAA IRON SERIES 2000PV OR SERIES 2500 OR APPROVED EQUAL.
3. WHEN FORCE MAIN ENTERS M.H. ABOVE BOTTOM, REFER TO FORCE MAIN RETROFIT FOR INSIDE DROP CONNECTION DETAIL.
4. BUILD FLOW CHANNEL PER DETAIL SEWER MANHOLE FOR TURBULENT FLOW, AND FINISH SMOOTH WITH GROUT.
5. THIS IS AN INTERCEPT MANHOLE AND MUST BE LINED WITH AN APPROVED LINER OR ARMOROCK PRECAST POLYMER CONCRETE MANHOLE AND BASE.

PLAN



INSTALL AIR RELEASE VALVE IF REQUIRED.
 REFERENCE BELOW GRADE AIR RELEASE VALVE DETAIL

PENETRATION TO BE MADE BY MECHANICAL ROTARY CORE BORING AND SHALL BE BUTTERED WITH NON-SHRINK GROUT TO PROVIDE A SMOOTH SEALING SURFACE

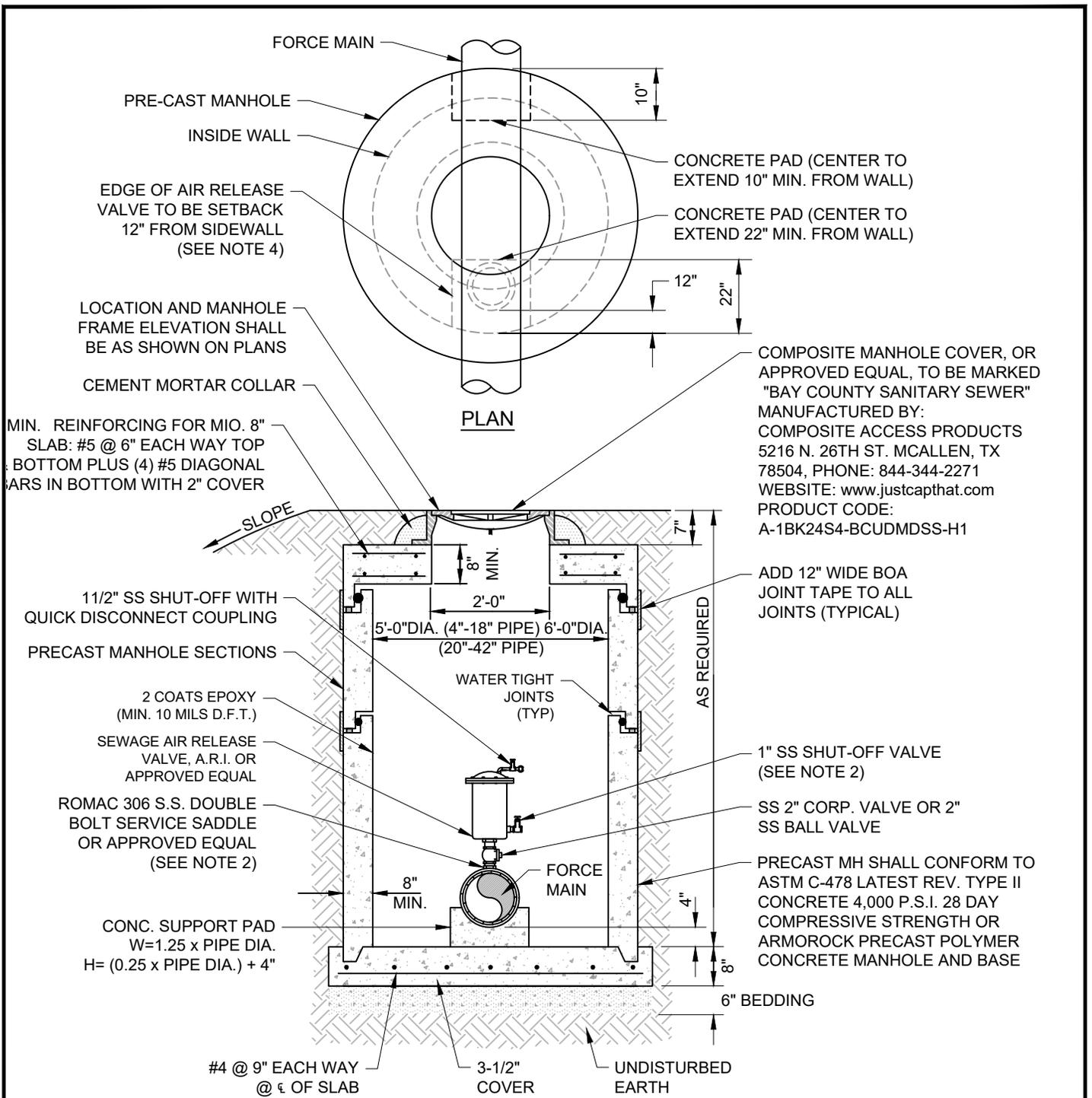


BAY COUNTY UTILITIES STANDARD DETAILS

FORCE MAIN CONNECTION TO SANITARY SEWER MANHOLE

DATE : MAY 2023
 SCALE : NTS

FIGURE : **WW-7**



NOTES:

1. AIR RELEASE VALVES WHERE REQUIRED ON 4" AND LARGER FORCE MAINS.
2. ARV TO BE SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATION FOR FORCE MAIN SIZE.
3. SERVICE SADDLE, NIPPLES AND CORPORATION BALL VALVE SHALL BE STAINLESS STEEL.
4. FOR MANHOLES WITH LESS THAN 44 INCHES OF COVER FROM TOP-OF-PIPE TO TOP-OF-FRAME, FRAME & COVER TO BE 32-INCH PAMREX WITH 32 INCH OPENING. OFFSET ARV 7.5 INCHES FROM CENTER OF OPENING. MINIMUM ALLOWABLE COVER IS 36 INCHES.
5. ALL PIPE PENETRATING MANHOLE SHALL HAVE RESILIENT PIPE TO MANHOLE SEALS PER ASTM-923.
6. FINAL GRADE TO BE SLOPED AWAY FROM MANHOLE.



BAY COUNTY
UTILITIES
STANDARD
DETAILS

**BELOW GRADE
AIR RELEASE VALVE
VACUUM VALVE
FOR SEWER FORCE MAIN**

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-8**

COMPOSITE MANHOLE COVER, OR APPROVED EQUAL, TO BE MARKED "BAY COUNTY SANITARY SEWER" MANUFACTURED BY: COMPOSITE ACCESS PRODUCTS 5216 N. 26TH ST. MCALLEN, TX 78504. PHONE: 844-344-2271 WEBSITE: WWW.JUSTCAPTHAT.COM PRODUCT CODE: A-1BK24S4-BCUDMDSS-H1 NOTE: SEE WW-9A

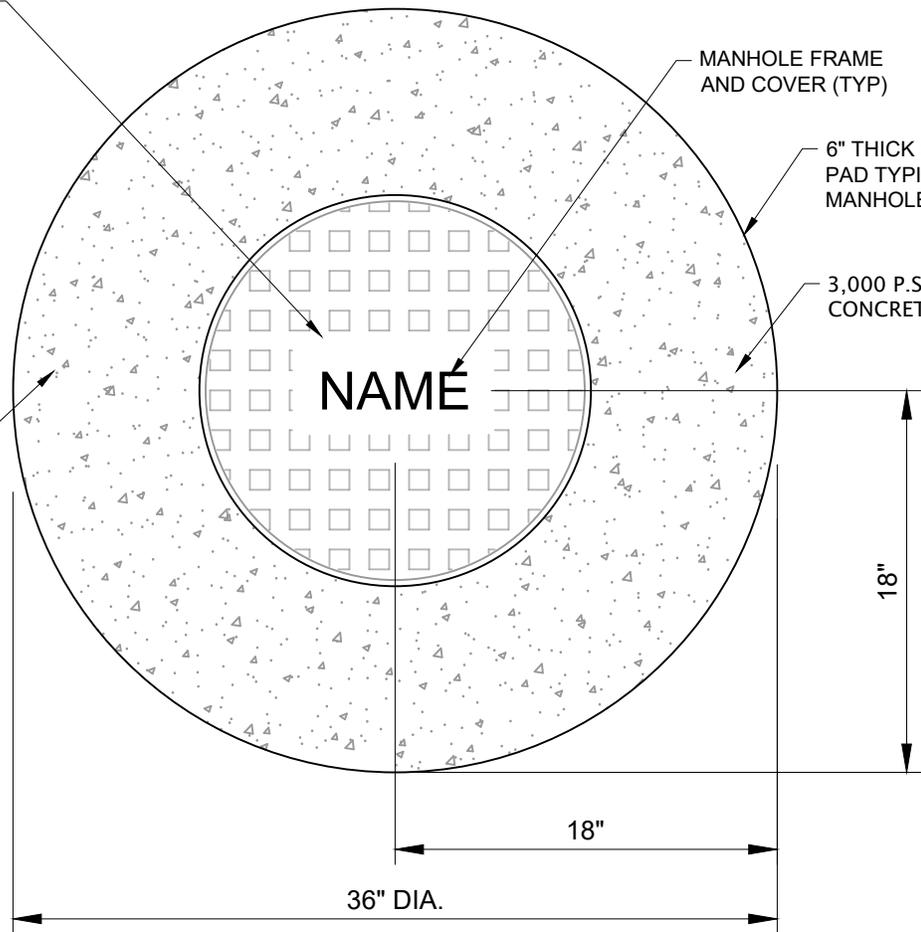
CONCRETE COLLAR FOR PAVED AND UNPAVED ROADWAYS

MANHOLE FRAME AND COVER (TYP)

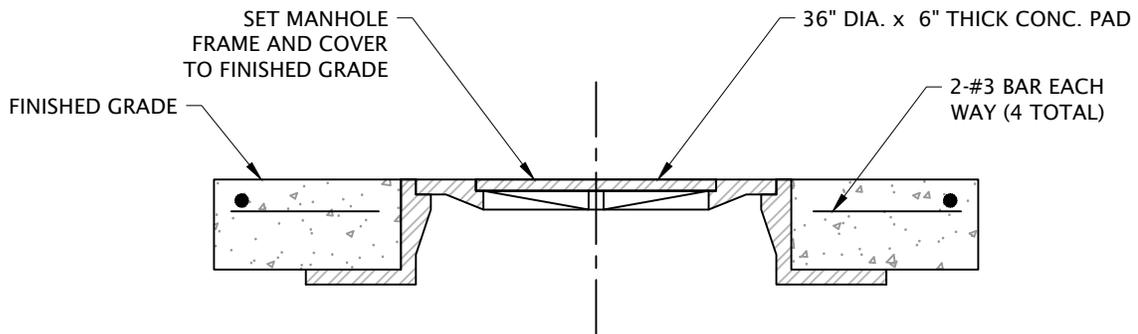
6" THICK CONCRETE PAD TYPICAL EACH MANHOLE

3,000 P.S.I. CONCRETE MIN.

NAME



EXISTINTG MANHOLES PLAN VIEWS



EXISTINTG MANHOLES PLAN VIEWS

NOTES:

1. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE 1, AND CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I.



BAY COUNTY UTILITIES STANDARD DETAILS

SEWER MANHOLE COVER AND CONCRETE COLLAR FOR PAVED AND UNPAVED ROADWAY

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-9**

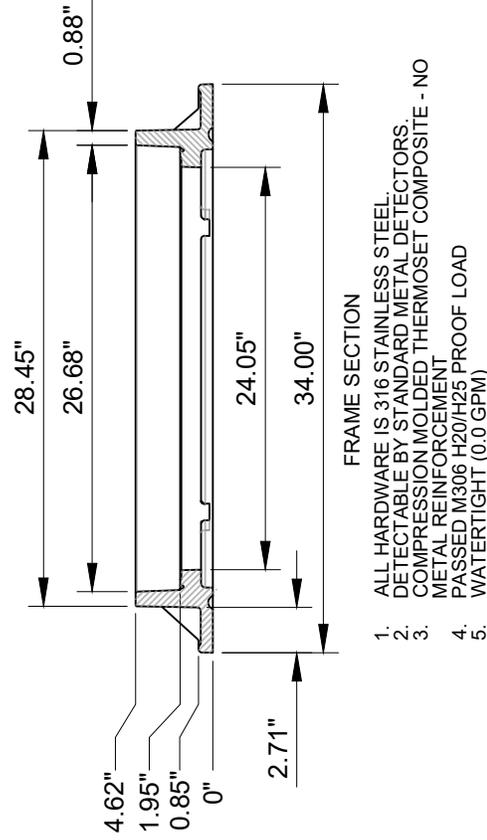
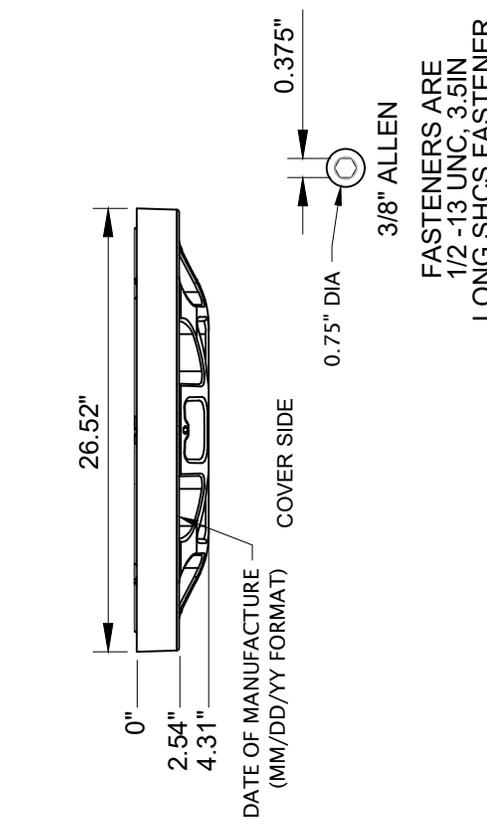
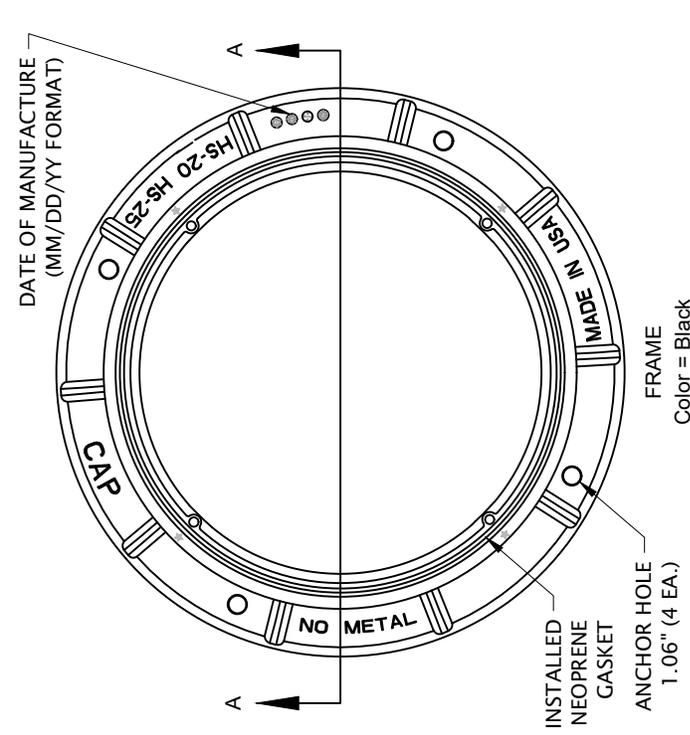
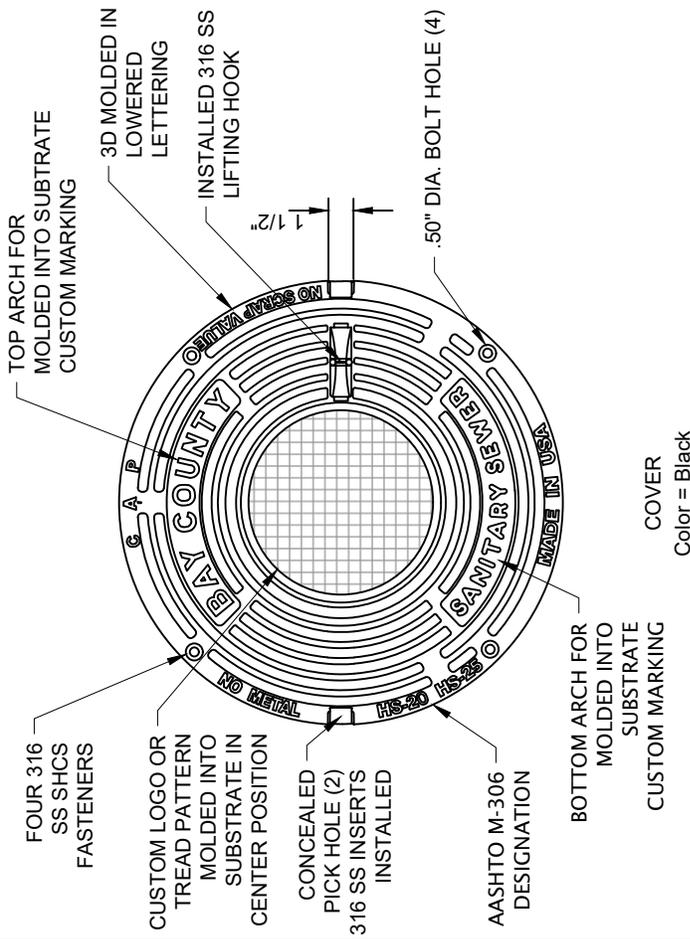


BAY COUNTY
UTILITIES
STANDARD
DETAILS

COMPOSITE MANHOLE COVER

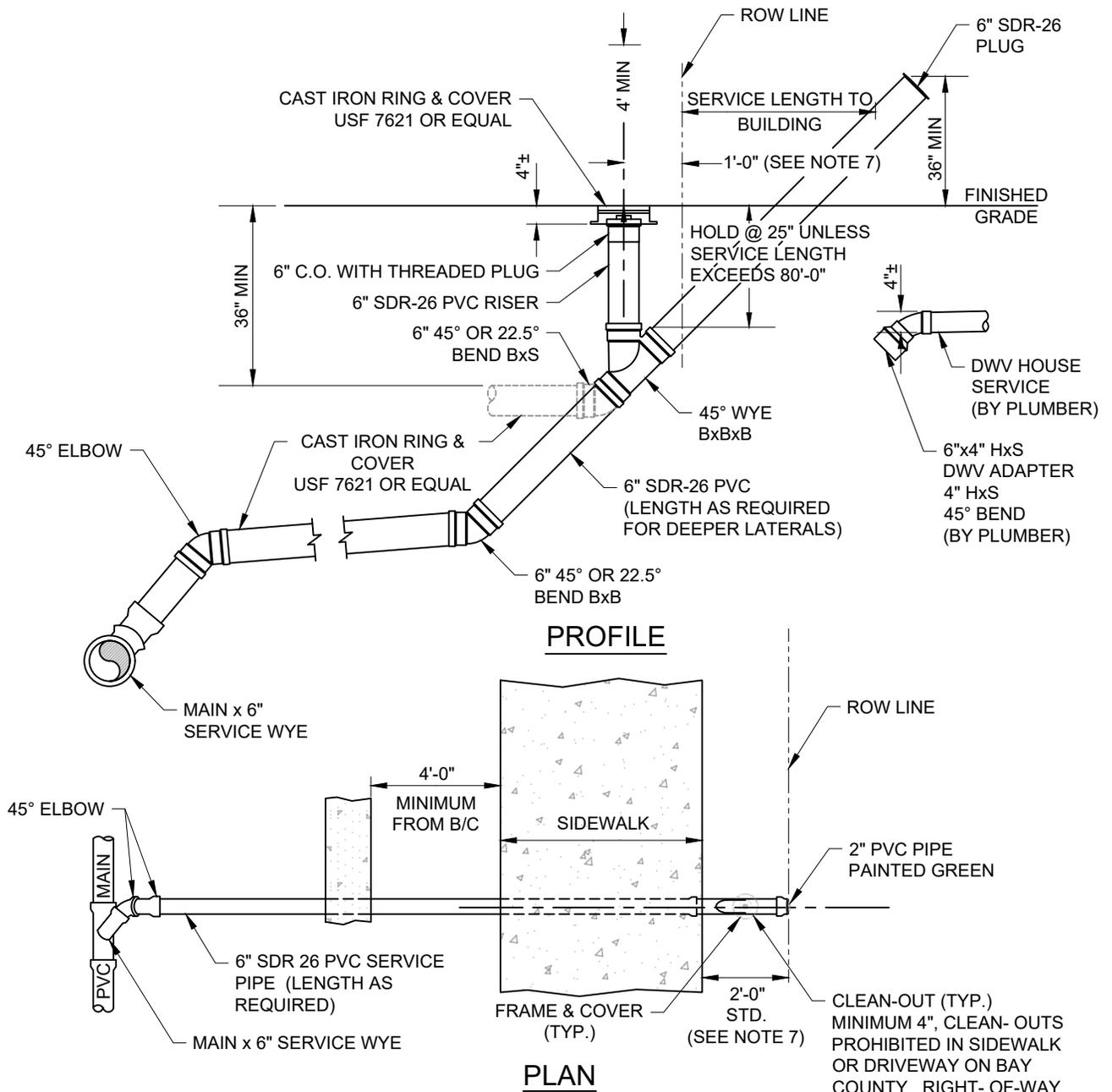
DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-9A**



COMPOSITE ACCESS PRODUCTS, L.P. "JUST CAP THAT"
 5216 N. 26TH STREET
 MCALLEN, TX 78504
 WEBSITE: www.justcapthat.com
 (844) 344-CAP1 (2271)

Product Code A-1BK24S4-BCUDMDSS-H1
 2021-02-18
MODEL # CAP ONE



NOTES:

1. RUBBER DONUTS ARE NOT TO BE USED.
2. "SCO" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE CLEAN-OUT. IF NO CURB INSTALL A GREEN DISC WITH "SCO" AND 1/8" X 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE CLEAN-OUT.
3. SANITARY SEWER CLEAN-OUTS SHALL NOT BE LOCATED IN DRAINAGE SWALES, EASEMENTS, SIDEWALKS OR DRIVEWAYS.
4. NO SERVICE CONNECTIONS TO BE MADE TO THE CLEAN-OUT RISER. ALL DOMESTIC CONNECTIONS SHALL BE MADE TO THE STUB-OUT PROVIDED.
5. SEWER SERVICE SHALL BE 5' MIN. FROM WATER SERVICE OR FIRE HYDRANT.
6. CLEAN-OUT ADAPTER TO BE SOLVENT-WELDED TO RISER TOP. CLEAN-OUT THREADS SHALL BE WRAPPED WITH TEFLON PLUMBERS TAPE TO SEAL PLUG WATERTIGHT.
7. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK & THE ROW LINE IS ONE FOOT (CUL-DE-SAC W/MEDIAN) THE DISTANCE BETWEEN THE CENTER OF THE CO RISER & THE ROW LINE SHALL BE 6".



BAY COUNTY
UTILITIES
STANDARD
DETAILS

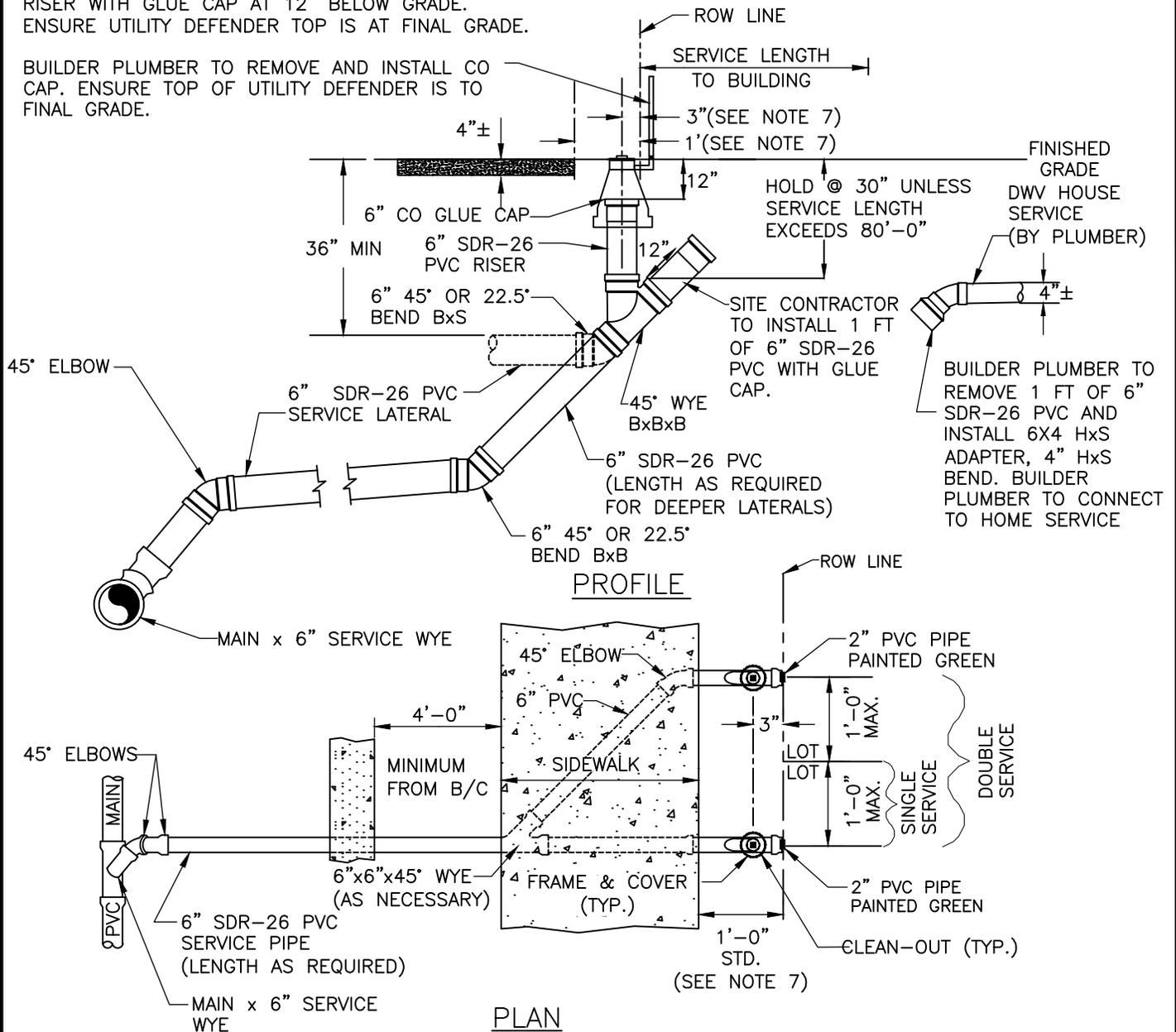
**SANITARY SEWER
SERVICE CONNECTION**

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-10**

SITE CONTRACTOR TO INSTALL 6" SDR-26 PVC RISER WITH GLUE CAP AT 12" BELOW GRADE. ENSURE UTILITY DEFENDER TOP IS AT FINAL GRADE.

BUILDER PLUMBER TO REMOVE AND INSTALL CO CAP. ENSURE TOP OF UTILITY DEFENDER IS TO FINAL GRADE.



NOTES:

1. RUBBER DONUTS ARE NOT TO BE USED.
2. "SCO" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE CLEAN-OUT. IF NO CURB INSTALL A GREEN DISC WITH "SCO" AND 1/8" X 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE CLEAN-OUT.
3. SANITARY SEWER CLEAN-OUTS SHALL NOT BE LOCATED IN DRAINAGE SWALES, EASEMENTS, SIDEWALKS OR DRIVEWAYS.
4. NO SERVICE CONNECTIONS TO BE MADE TO THE CLEAN-OUT RISER. ALL DOMESTIC CONNECTIONS SHALL BE MADE TO THE STUB-OUT PROVIDED.
5. SEWER SERVICE SHALL BE 5' MIN. FROM WATER SERVICE OR FIRE HYDRANT.
6. CLEAN-OUT ADAPTER TO BE SOLVENT-WELDED TO RISER TOP. CLEAN-OUT THREADS SHALL BE WRAPPED WITH TEFLON PLUMBERS TAPE TO SEAL PLUG WATERTIGHT.
7. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK & THE ROW LINE IS ONE FOOT INCHES (1') (CUL-DE-SAC W/MEDIAN) THE DISTANCE BETWEEN THE CENTER OF THE CO RISER & THE ROW LINE SHALL BE 3".



BAY COUNTY
UTILITIES
STANDARD
DETAILS

**SANITARY SEWER
SERVICE CONNECTION**

DATE : JULY 2023
SCALE : NTS

FIGURE : **WW-10A**

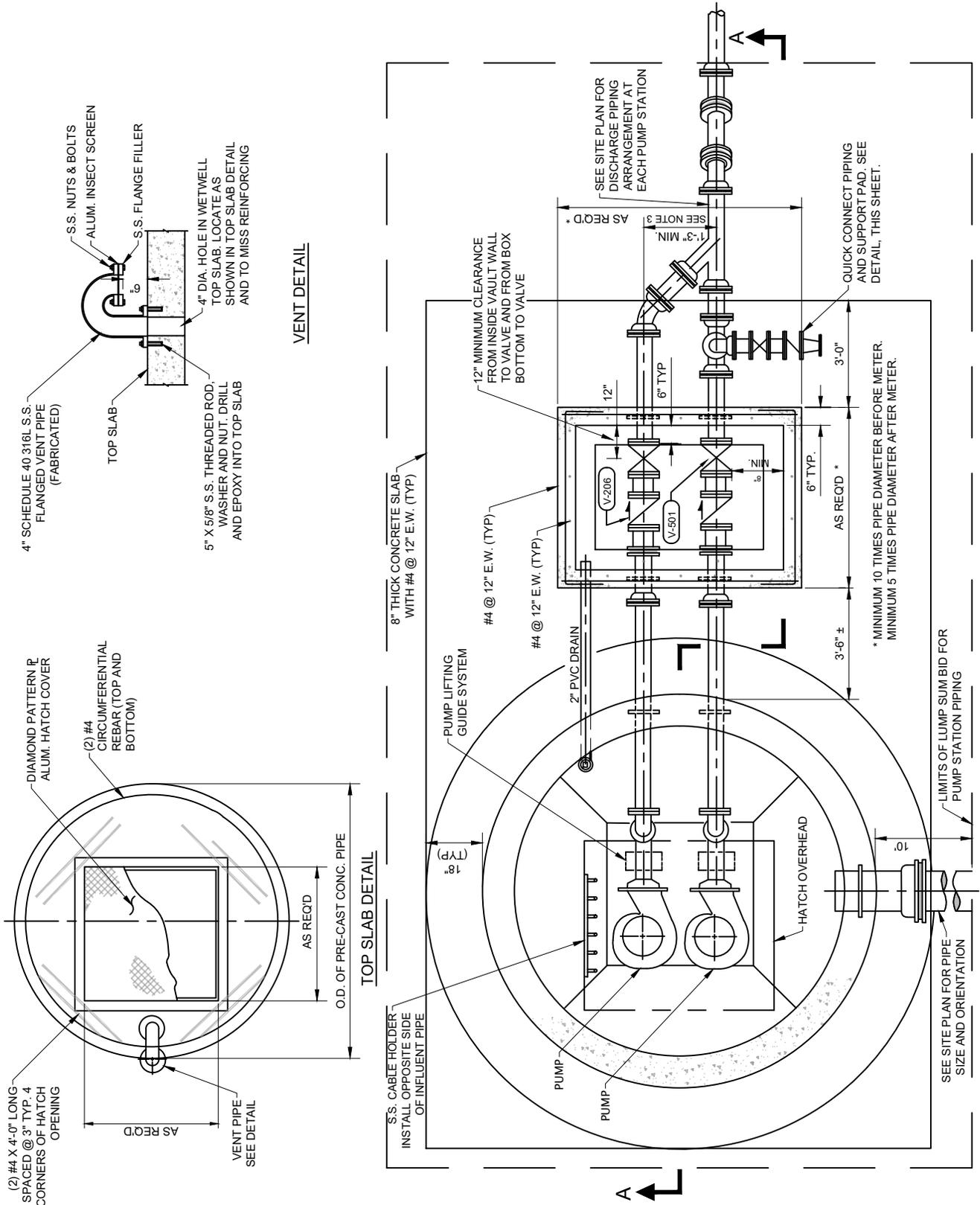


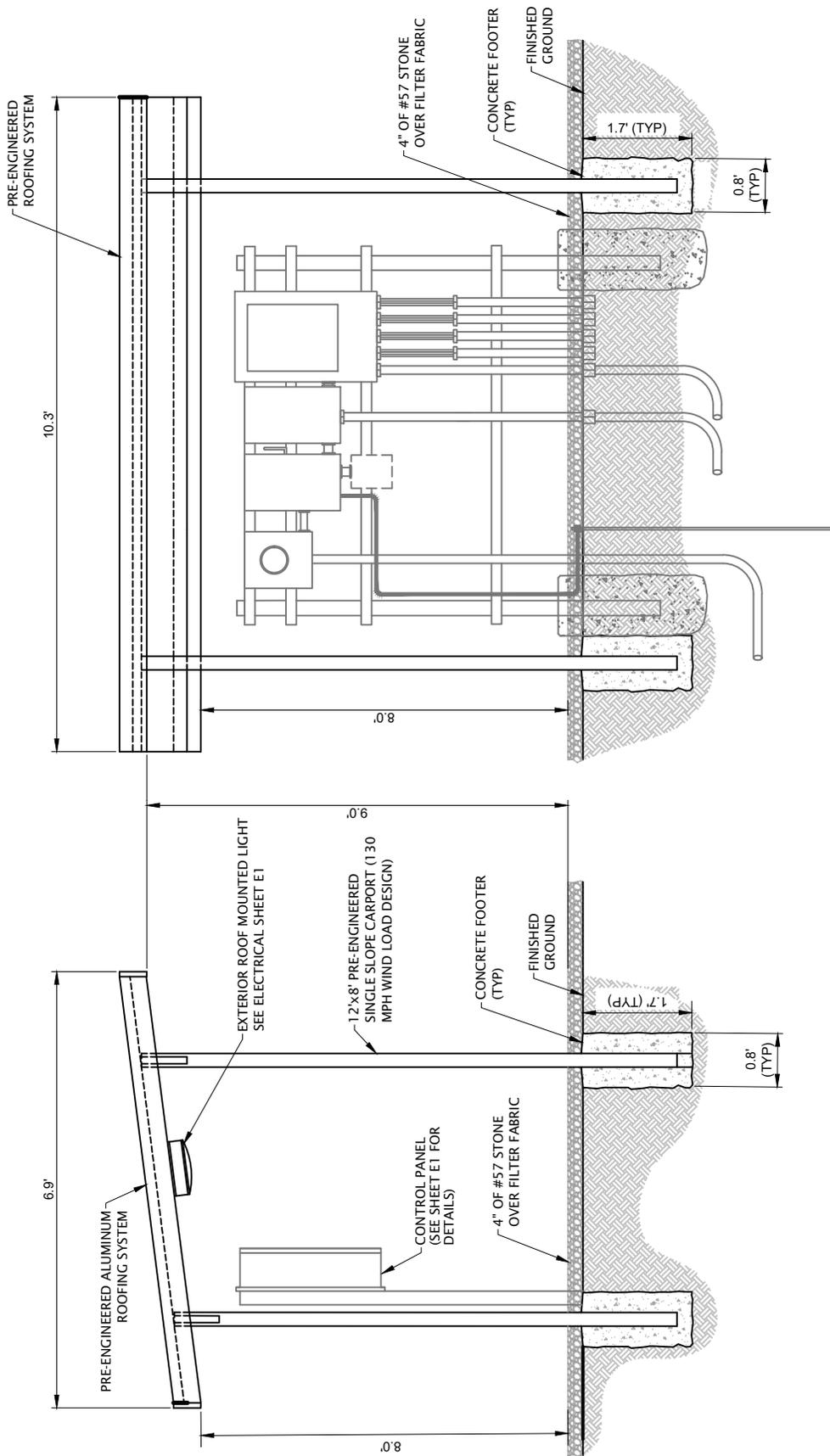
BAY COUNTY
UTILITIES
STANDARD
DETAILS

SANITARY SEWER PUMP STATION AND VALVE VAULT PLAN

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-11**



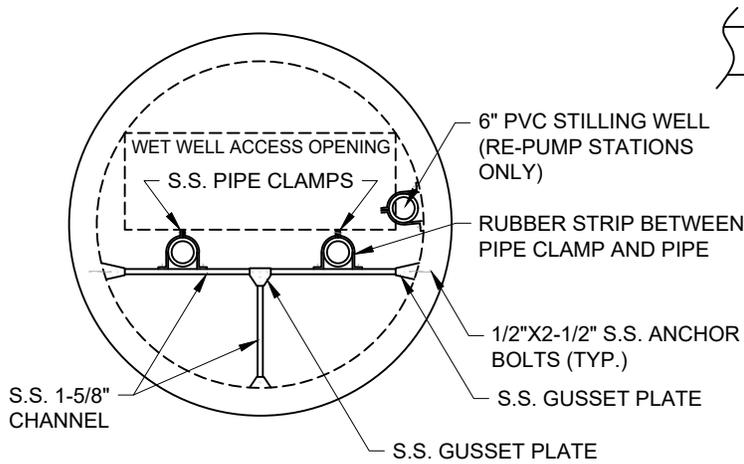


BAY COUNTY
UTILITIES
STANDARD
DETAILS

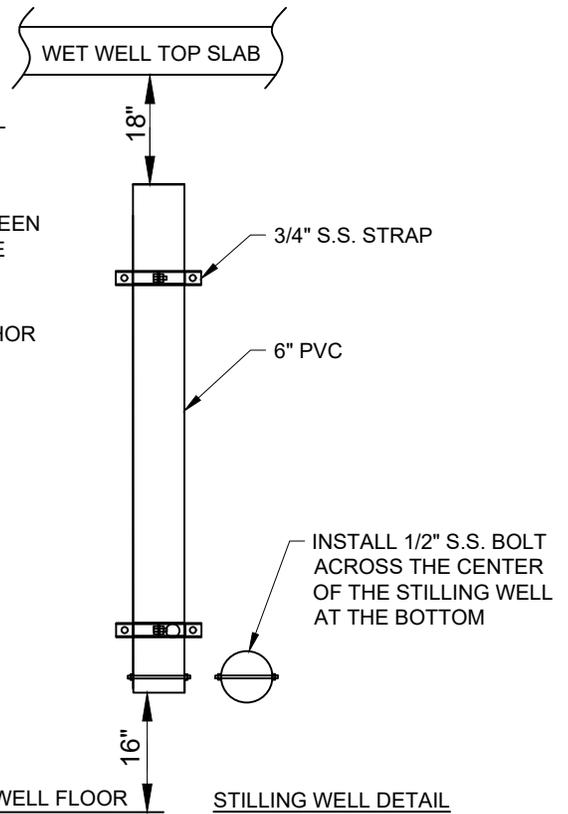
SANITARY SEWER
LIFT STATION CONTROLS
PRE-ENGINEERED ROOF

DATE : MAY 2023
SCALE : NTS

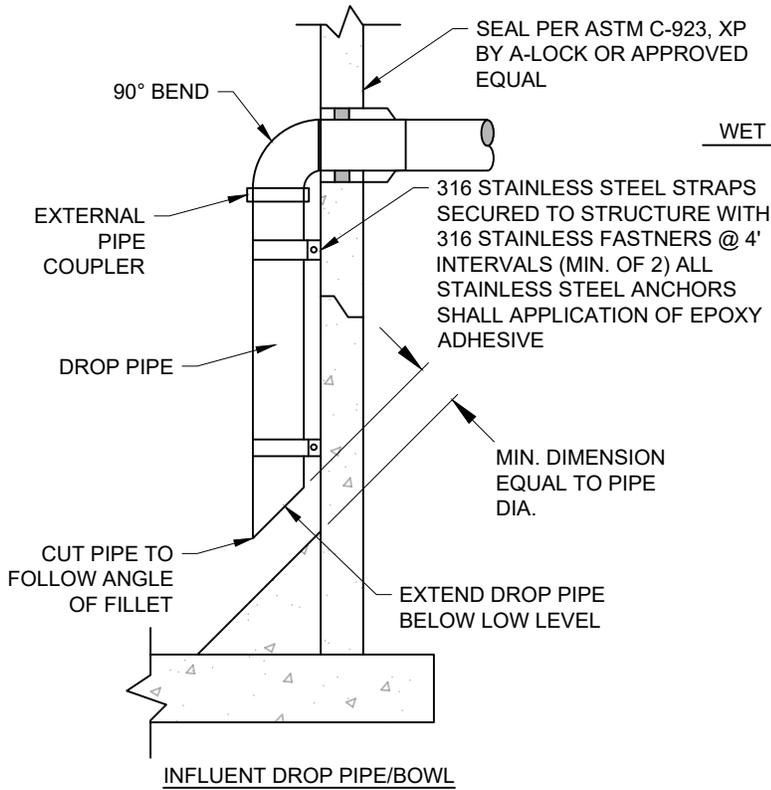
FIGURE : **WW-13**



**WET WELL PIPE BRACING
DETAIL**



STILLING WELL DETAIL



INFLUENT DROP PIPE/BOWL

| PUMP DATA AND DESIGN CHARACTERISTICS | |
|--|--|
| NUMBER OF PUMPS | |
| DESIGN CAPACITY PER PUMP, GPM | |
| TOTAL DYNAMIC HEAD, FEET | |
| MINIMUM EFFICIENCY AT DESIGN CAPACITY % | |
| HORSEPOWER PER PUMP, H.P. | |
| SHUT-OFF HEAD, FEET | |
| MAX. SIZE SOLIDS, INCHES | |
| DISCHARGE SIZE, INCHES | |
| PUMP MANUFACTURER & MODEL NUMBER | |
| IMPELLER DIAMETER, INCHES | |
| PUMP R.P.M. | |
| ELECTRICAL SERVICE - VOLTAGE & PHASE | |
| FORCE MAIN - LENGTH, DIAMETER & MATERIAL | |
| FORCE MAIN DISCHARGE ELEV. & HIGHEST ELEV. | |

NOTES:

1. STILLING WELL FOR LEVEL TRANSDUCER REQUIRED FOR RE-PUMP STATIONS ONLY.
2. REFER TO STANDARD DETAILS US-17, US-18 & US-19 FOR PUMP STATION DETAILS.



**BAY COUNTY
UTILITIES
STANDARD
DETAILS**

**SANITARY SEWER
LIFT STATION
DROP PIPE BRACING
AND STILLING WELL**

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-14**

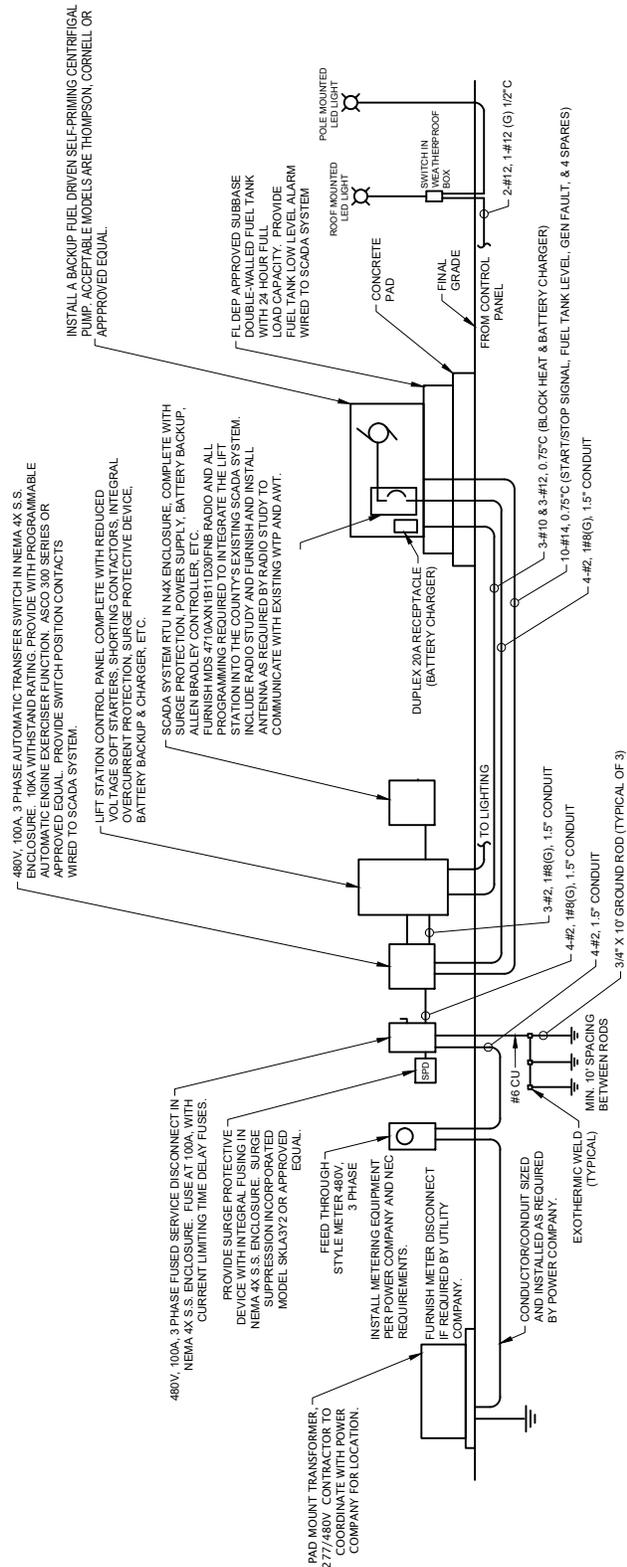


**BAY COUNTY
UTILITIES
STANDARD
DETAILS**

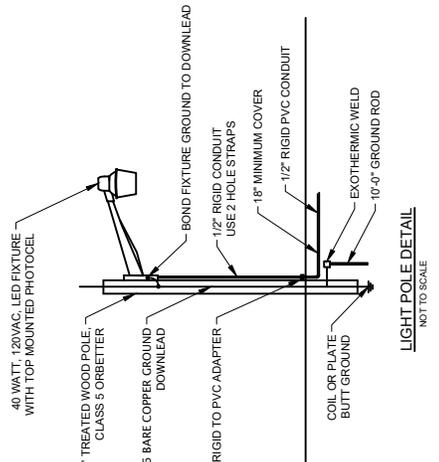
SANITARY SEWER LIFT STATION ELECTRICAL MISCELLANEOUS DETAILS

DATE : JUN 2025
SCALE : NTS

FIGURE : **WW-17**



**ELECTRICAL RISER DIAGRAM
NOT TO SCALE**



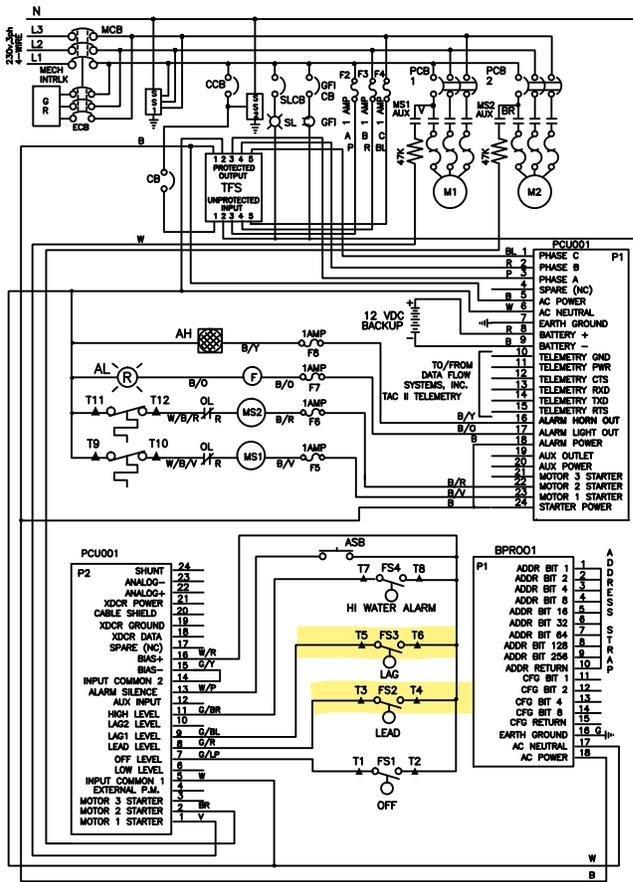
**LIGHTING FIXTURE SCHEDULE
(THIS SHEET ONLY)**

| DESCRIPTION | MANUFACTURER | MODEL NUMBER |
|---|--------------|---------------------------|
| LED SECURITY LIGHT MOUNTED ON 25FT WOOD POLE, PHOTOCELL CONTROL | HUBBELL | MODEL DDL-9L-1 |
| UNDER ROOF MOUNTED LED FIXTURE | HUBBELL | MODEL NRG4-30LU-9K-035-BZ |

**GENERATOR PAD DETAIL
NOT TO SCALE**

NOTES:
#5 REBAR TO GROUNDING SYSTEM.
PROVIDE ALUMINUM OR GALVANIZED STEEL WORK PLATFORM IF GENERATOR CONTROLS ARE LOCATED MORE THAN 7' ABOVE FINAL GRADE.

PANEL COMPONENTS



- ENC ENCLOSURE
- MCB MAIN CIRCUIT BREAKER
- ECB EMERGENCY CIRCUIT BREAKER
- PCB PUMP CIRCUIT BREAKER
- CCB CONTROL CIRCUIT BREAKER
- GFICB GFI CIRCUIT BREAKER
- MS1,2 STARTER
- GR GENERATOR RECEPTACLE
- AH ALARM HORN
- AL ALARM LIGHT
- F FLASHER
- ASB ALARM SILENCE BUTTON
- GF1 CONVENIENCE RECEPTACLE
- TCU TELEMETRY CONTROL UNIT
- CB CIRCUIT BREAKER
- F2-8 FUSE AND HOLDER
- 47K RESISTOR BLOCK
- TFS TRANSIENT FILTER SHIELD
- 12VDC BATTERY BACKUP
- SS1 230V SURGE SUPPRESSOR (TPS001)
- SS2 120V SURGE SUPPRESSOR (SPS001)
- TB1 TERMINAL BLOCK (24V) TERMINAL BLOCK (ALL OTHERS)
- TB2 TERMINAL BLOCK (24V) TERMINAL BLOCK (ALL OTHERS)
- SLB SITE LIGHTING CIRCUIT BREAKER
- FMB FLOW METER CIRCUIT BREAKER (RE-PUMP LIFT STATIONS ONLY)
- SL SITE LIGHT

Use 0-15PSI level transducer for level control. Include isolation for analog signal.

TB-1 (24V)

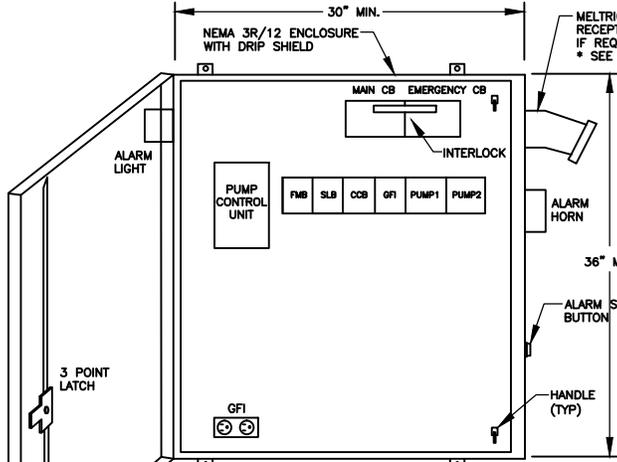
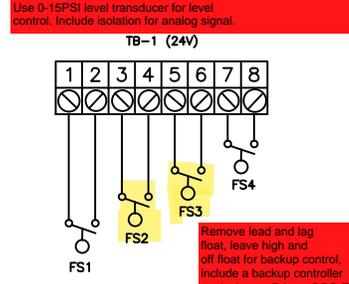
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|

TB-2 (110V)

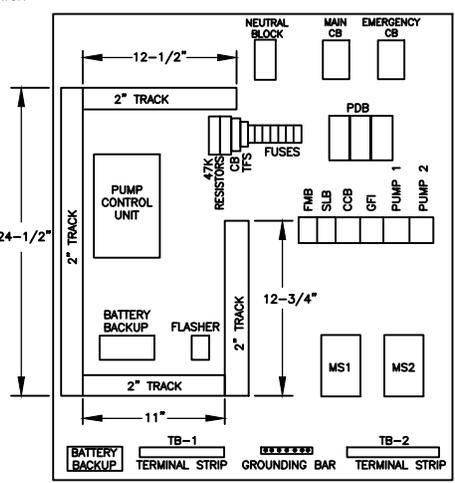
| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|----|----|----|

COLOR CODE

| SYMBOL | COLOR |
|--------|-----------------|
| B | BLACK |
| W | WHITE |
| G | GREEN |
| BL | BLUE |
| R | RED |
| P | PINK |
| V | VIOLET |
| BR | BROWN |
| B/Y | BLACK/YELLOW |
| B/O | BLACK/ORANGE |
| B/R | BLACK/RED |
| B/V | BLACK/VIOLET |
| G/LP | GREY/LIGHT PINK |
| G/R | GREY/RED |
| G/BL | GREY/BLUE |
| G/BR | GREY/BROWN |
| W/P | WHITE/PINK |
| G/Y | GREY/YELLOW |
| W/R | WHITE/RED |
| W/B/V | WHT/BLK/VIOLET |
| W/B/R | WHT/BLK/RED |



ENCLOSURE AND DEADFRONT LAYOUT (TYPICAL)



BACKPLATE LAYOUT (TYPICAL)

- NOTES:
1. OUTER BOX SIZE WILL BE A MINIMUM OF 30"W X 36"H X 12"D.
 2. DEAD FRONT DOOR SHALL HAVE A MINIMUM OF TWO LATCHES.
 3. THIS DETAIL FOR PUMPS 20 H.P. AND BELOW. (SOFT START)
 4. THE FLOW METER CIRCUIT BREAKER (FMB) IS ONLY REQUIRED FOR RE-PUMP LIFT STATIONS
 5. PORTABLE GENERATOR SHALL BE ALLOWED ONLY WHEN ULTIMATE BUILD-OUT IS LESS THAN 0 UNITS



BAY COUNTY UTILITIES STANDARD DETAILS

SANITARY SEWER LIFT STATION CONTROL PANEL (230v)

DATE : JUN 2025
SCALE : NTS

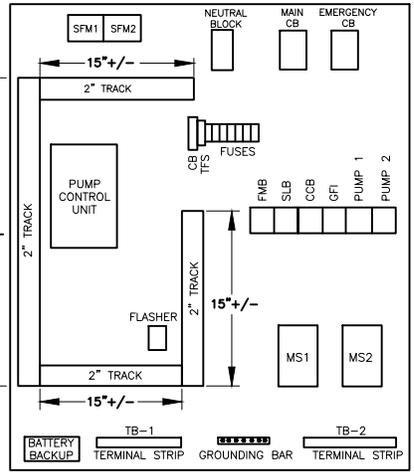
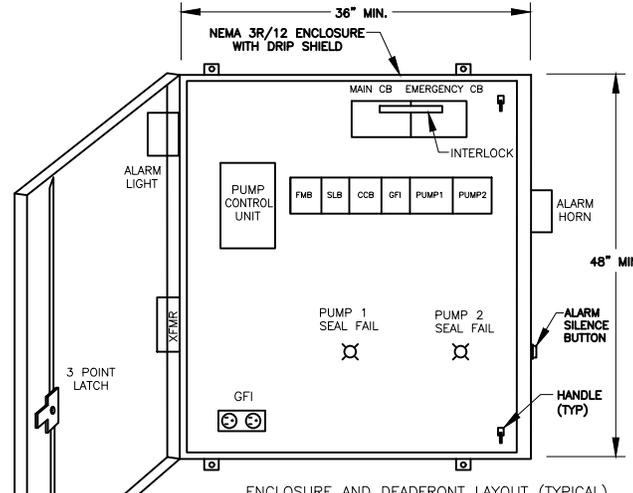
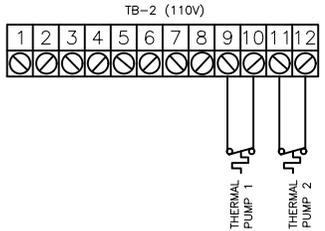
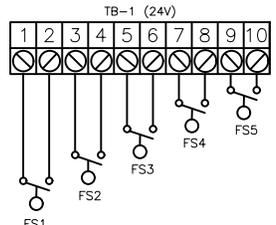
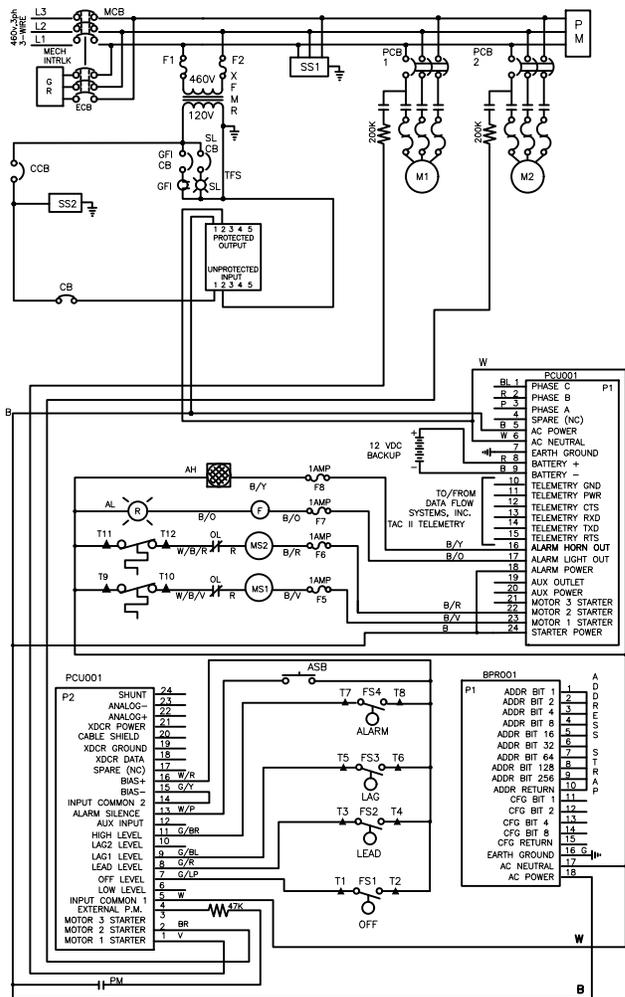
FIGURE : **WW-18**

PANEL COMPONENTS

- ENC ENCLOSURE
- MCB MAIN CIRCUIT BREAKER
- ECB EMERGENCY CIRCUIT BREAKER
- PCB PUMP CIRCUIT BREAKER
- CCB CONTROL CIRCUIT BREAKER
- GFICB GF CIRCUIT BREAKER
- MS1,2 STARTER
- GR GENERATOR RECEPTACLE
- AH ALARM HORN
- AL ALARM LIGHT
- F FLASHER
- ASB ALARM SILENCE BUTTON
- GF1 CONVENIENCE RECEPTACLE
- XFMR TRANSFORMER
- F1,2 FUSES
- PM PHASE MONITOR
- TCU TELEMETRY CONTROL UNIT
- CB CIRCUIT BREAKER
- F4-7 FUSE AND HOLDER
- 47K RESISTOR BLOCK
- TFS TRASIENT FILTER SHIELD
- 12VDC BATTERY BACKUP
- SS1 480V SURGE SUPPRESSOR (TPS001)
- SS2 120V SURGE SUPPRESSOR (SPS001)
- TB1 TERMINAL BLOCK (24V)
- TB2 TERMINAL BLOCK (ALL OTHERS)
- SLB SITE LIGHTING CIRCUIT BREAKER
- FMB FLOW METER CIRCUIT BREAKER (RE-PUMP LIFT STATIONS ONLY)
- SL SITE LIGHT

COLOR CODE

| SYMBOL | COLOR |
|--------|-----------------|
| B | BLACK |
| W | WHITE |
| G | GREEN |
| BL | BLUE |
| R | RED |
| P | PINK |
| V | VIOLET |
| BR | BROWN |
| B/Y | BLACK/YELLOW |
| B/O | BLACK/ORANGE |
| B/R | BLACK/RED |
| B/V | BLACK/VIOLET |
| G/LP | GREY/LIGHT PINK |
| C/R | GREY/RED |
| G/BL | GREY/BLUE |
| G/BR | GREY/BROWN |
| W/P | WHITE/PINK |
| G/Y | GREY/YELLOW |
| W/R | WHITE/RED |
| W/B/V | WHT/BLK/VIOLET |
| W/B/R | WHT/BLK/RED |



- NOTES:
1. OUTER BOX SIZE WILL BE A MINIMUM OF 30"W X 36"H X 12"D.
 2. DEAD FRONT DOOR SHALL HAVE A MINIMUM OF TWO LATCHES.
 3. THIS DETAIL FOR PUMPS 21 H.P. AND ABOVE.
 4. SIZE 3 AND LARGER MOTOR STARTERS REQUIRE A STARTER COIL ISOLATION RELAY. SOFT START OR VFD, PER FLOWRATE REQUIREMENTS.
 5. THE CONTROL TRANSFORMER SHALL BE MOUNTED ON THE EXTERIOR OF THE PANEL.
 6. THE FLOW METER CIRCUIT BREAKER (FMB) IS ONLY REQUIRED FOR RE-PUMP LIFT STATIONS.

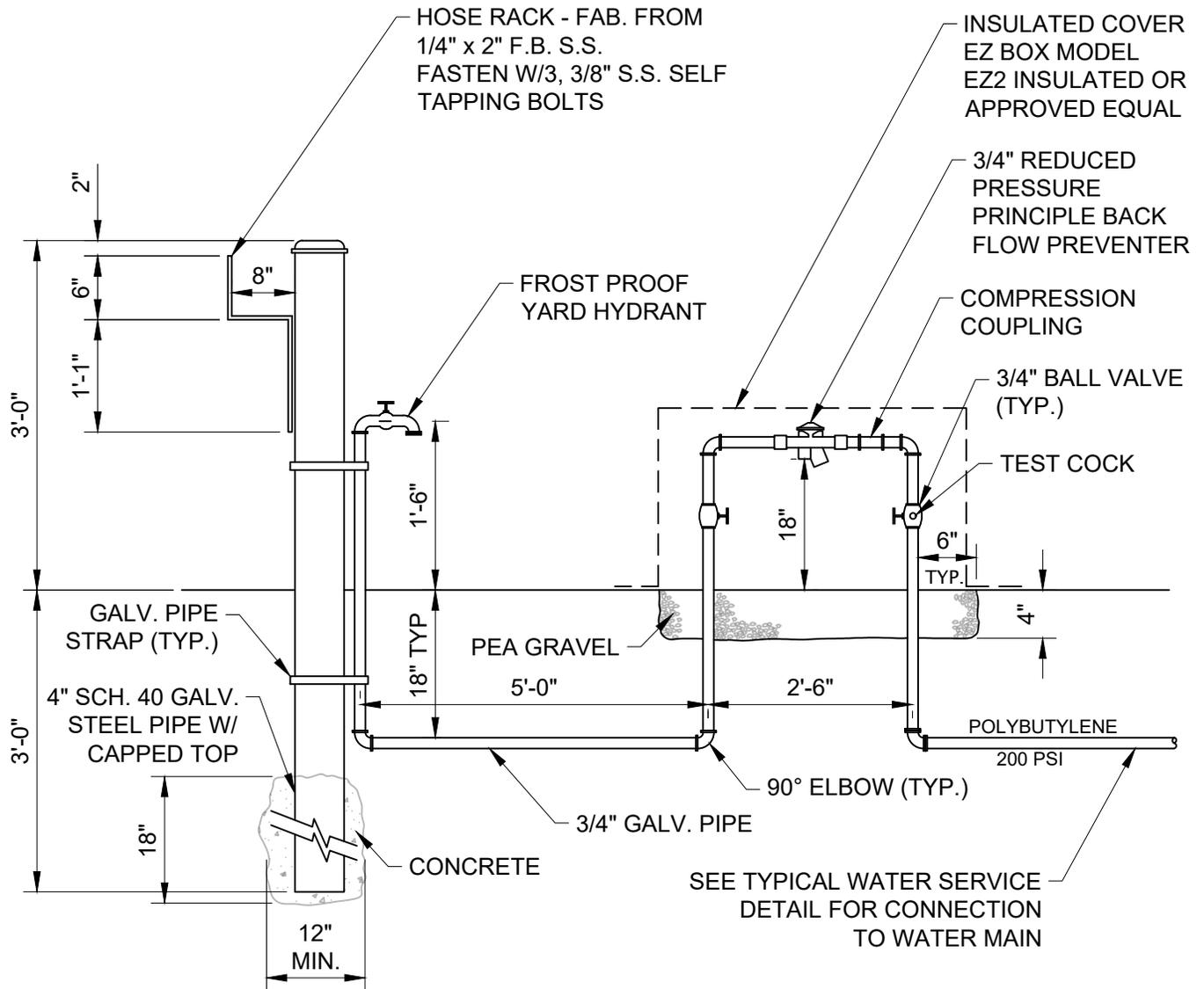


BAY COUNTY UTILITIES
STANDARD
DETAILS

**SANITARY SEWER
LIFT STATION
CONTROL PANEL
(460v) GENSET REQUIRED**

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-19**

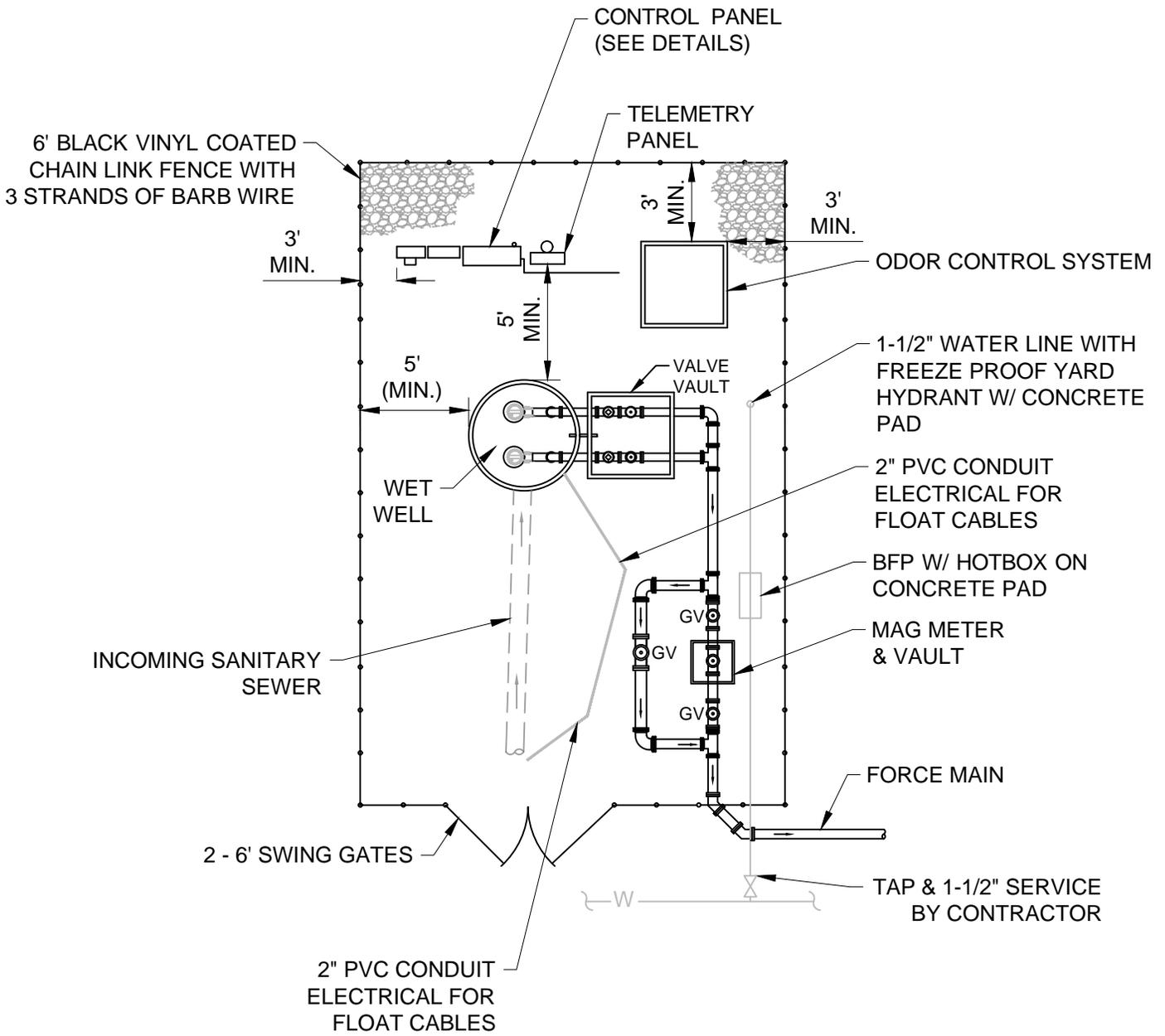


BAY COUNTY
UTILITIES
STANDARD
DETAILS

SANITARY SEWER
PUMP STATION
WATER SERVICE
CONNECTION

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-22**



NOTE:
 1. SUCTION PIPES IN WETWELL AND MANHOLE SHOULD BE 18" FROM BOTTOM



BAY COUNTY
 UTILITIES
 STANDARD
 DETAILS

LARGE LIFT STATION
 PIPE & PUMP PLAN

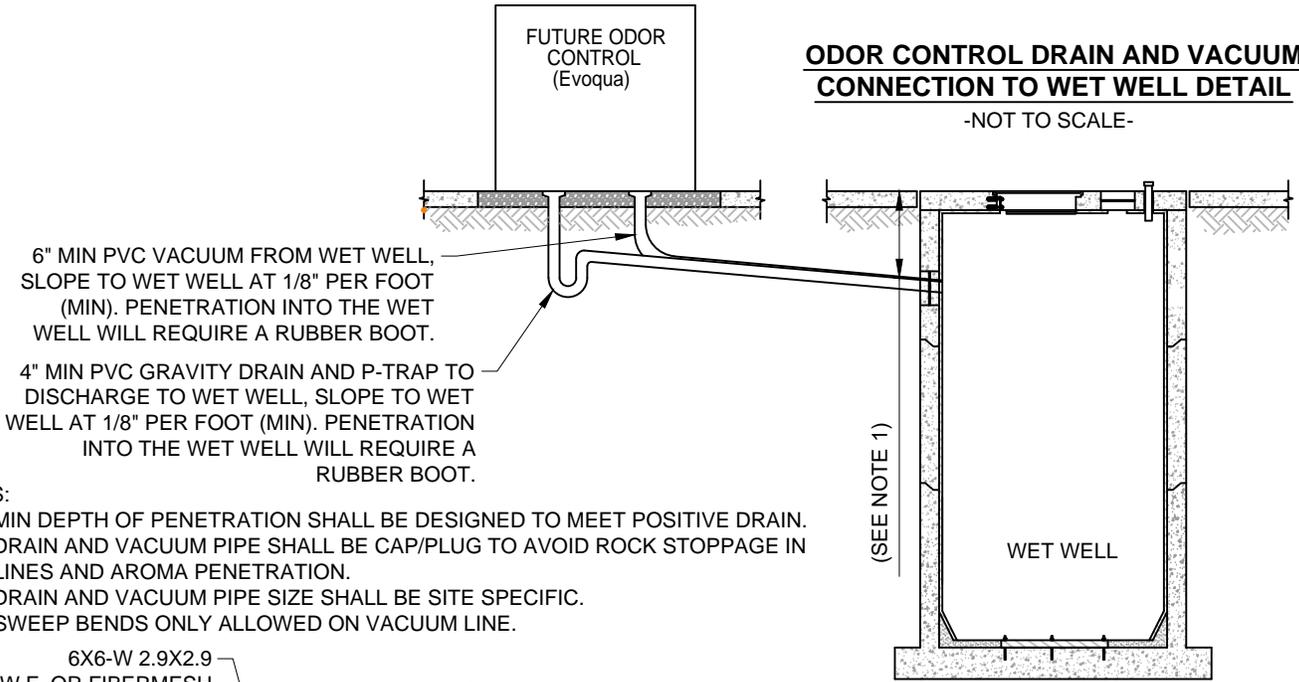
DATE : MAY 2023
 SCALE : NTS

WW-23

FIGURE :

ODOR CONTROL DRAIN AND VACUUM CONNECTION TO WET WELL DETAIL

-NOT TO SCALE-

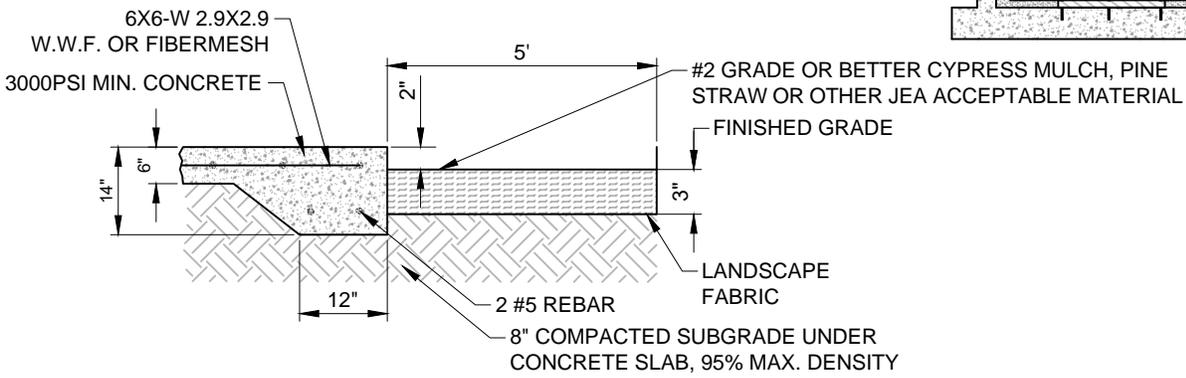


6" MIN PVC VACUUM FROM WET WELL, SLOPE TO WET WELL AT 1/8" PER FOOT (MIN). PENETRATION INTO THE WET WELL WILL REQUIRE A RUBBER BOOT.

4" MIN PVC GRAVITY DRAIN AND P-TRAP TO DISCHARGE TO WET WELL, SLOPE TO WET WELL AT 1/8" PER FOOT (MIN). PENETRATION INTO THE WET WELL WILL REQUIRE A RUBBER BOOT.

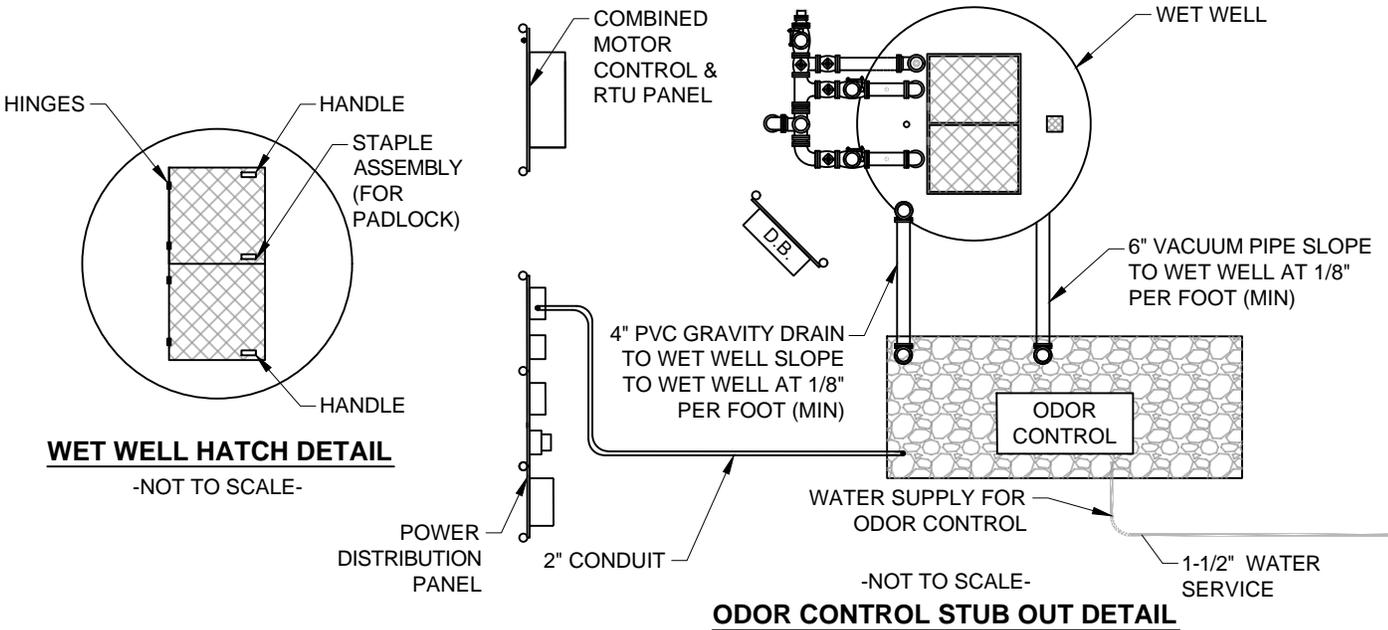
NOTES:

1. MIN DEPTH OF PENETRATION SHALL BE DESIGNED TO MEET POSITIVE DRAIN.
2. DRAIN AND VACUUM PIPE SHALL BE CAP/PLUG TO AVOID ROCK STOPPAGE IN LINES AND AROMA PENETRATION.
3. DRAIN AND VACUUM PIPE SIZE SHALL BE SITE SPECIFIC.
4. SWEEP BENDS ONLY ALLOWED ON VACUUM LINE.



-NOT TO SCALE-

CONCRETE SLAB AND GROUND COVER DETAIL



WET WELL HATCH DETAIL

-NOT TO SCALE-

ODOR CONTROL STUB OUT DETAIL

-NOT TO SCALE-



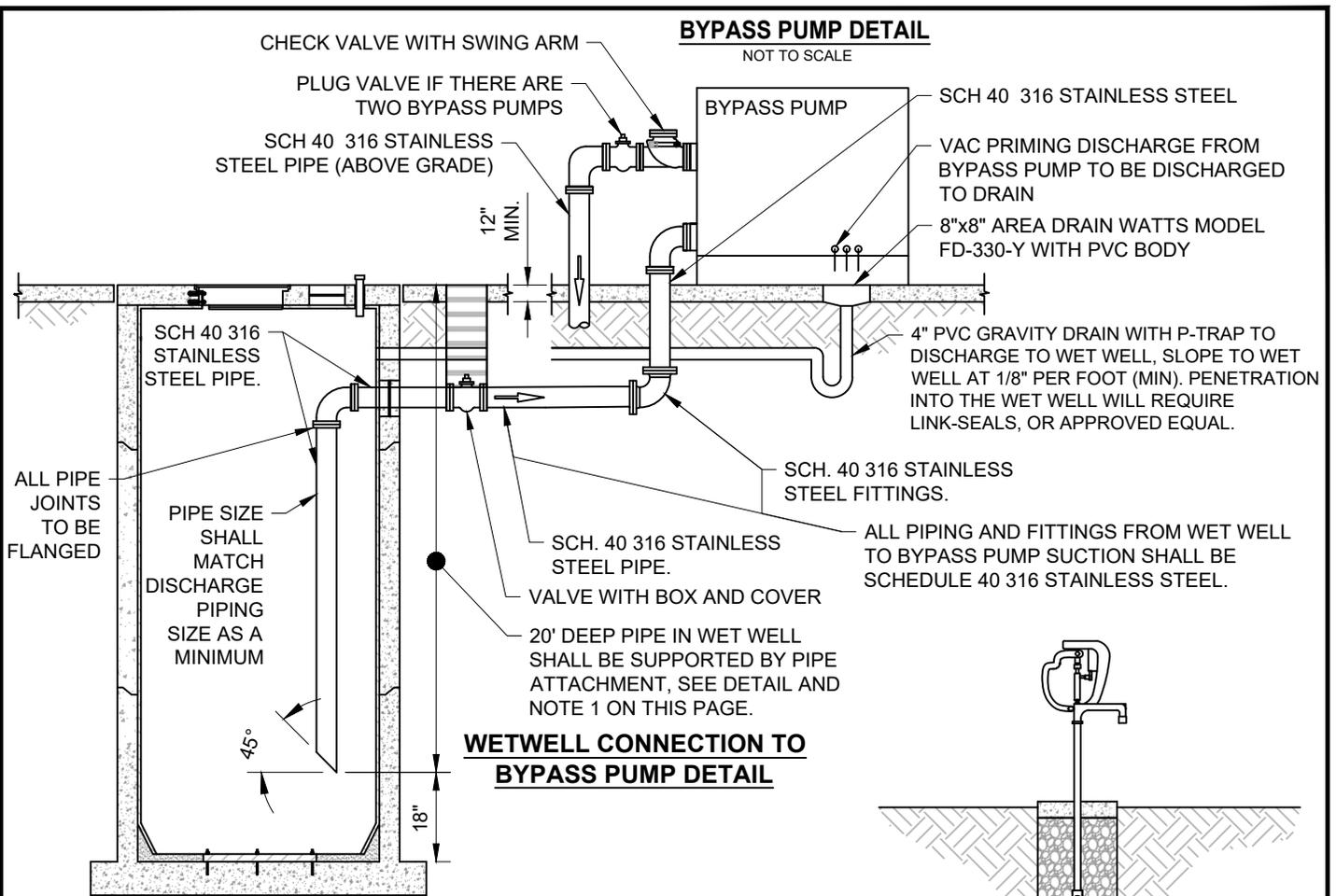
BAY COUNTY UTILITIES STANDARD DETAILS

LARGE LIFT STATION PIPE & PUMP DETAILS "B"

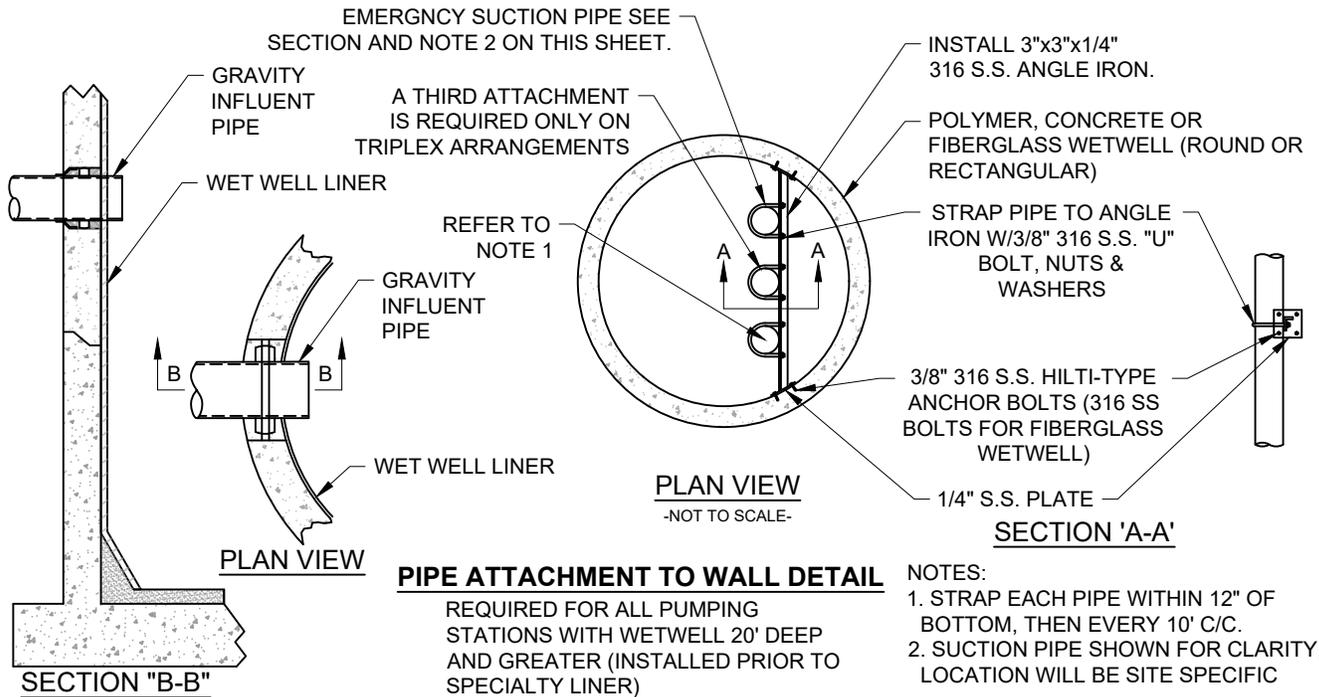
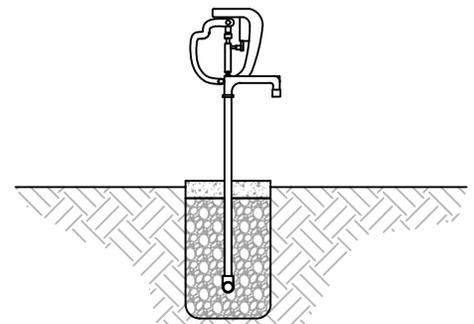
DATE : MAY 2023
SCALE : NTS

WW-23B

FIGURE :



NOTES:
ENGINEER SHALL BE RESPONSIBLE FOR SIZING PIPING FOR NET POSITIVE SUCTION HEAD REQUIRED. THE ABOVE PIPING IS SHOWN FOR CLARITY, SEE PLAN VIEW FOR PIPE ORIENTATION. NOT TO SCALE

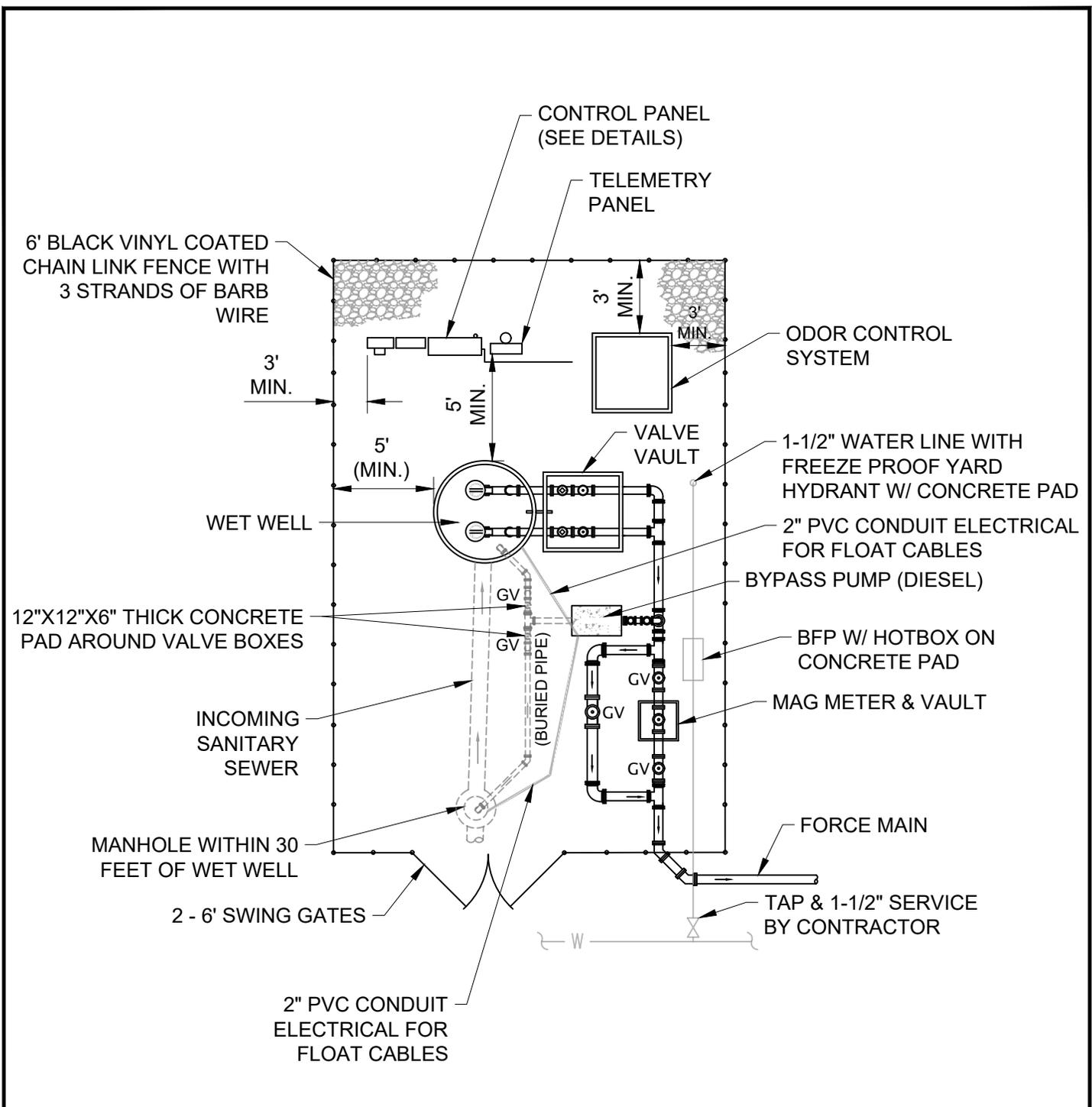


BAY COUNTY
UTILITIES
STANDARD
DETAILS

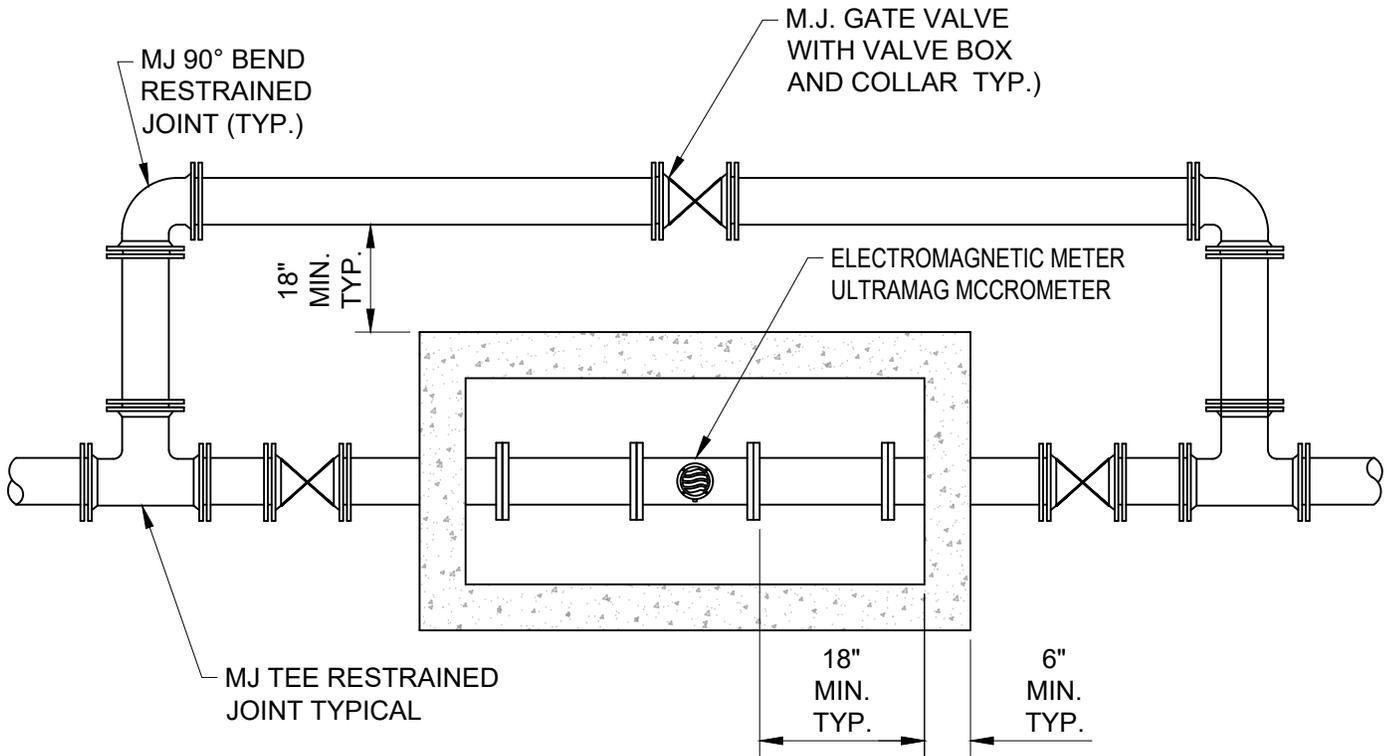
LARGE LIFT STATION
PIPE & PUMP DETAILS "A"

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-23A**



NOTE:
 1. SUCTION PIPES IN WETWELL AND MANHOLE SHOULD BE 18" FROM BOTTOM



PLAN VIEW

NOTES:

1. ALL EXPOSED METAL SHALL BE PAINTED WITH 2 COATS OF EXTERIOR ENAMEL PAINT.
2. METER VAULT SHALL HAVE SEALED FLOOR, WALLS, AND DRAIN WITH DRAIN LINE FROM FLOW METER VAULT TO WET WELL.
3. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE OR NON-SHRINK GROUT.
4. VALVE VAULT COVERS SHALL BE ALUMINUM DOUBLE-COVER STYLE WITH 316 S.S. HARDWARE AND LOCK BRACKET AS APPROVED BY THE COUNTY.
5. ACCESS HATCH LOAD REQUIREMENTS WILL BE DOUBLE-COVER STYLE APPROVED BY BAY COUNTY ON A CASE BY CASE SCENARIO.
6. METER VAULT SHALL BE SIZED BASED ON METER SIZE AND FITTING CLEARANCE REQUIREMENTS. THE MINIMUM CLEARANCE REQUIREMENTS ARE SHOWN IN THIS DETAIL AND WW-26.
7. METER SHALL BE ELECTROMAGNETIC METER ULTRAMAG McCROMETER (WITH AVAILABLE POWER SUPPLY).
8. MINIMUM DISTANCE FROM METER FLANGE TO INSIDE VAULT WALL SHALL BE 12"
9. MINIMUM DISTANCE FROM BOTTOM OF PIPE TO VAULT FLOOR SHALL BE 12"



BAY COUNTY
UTILITIES
STANDARD
DETAILS

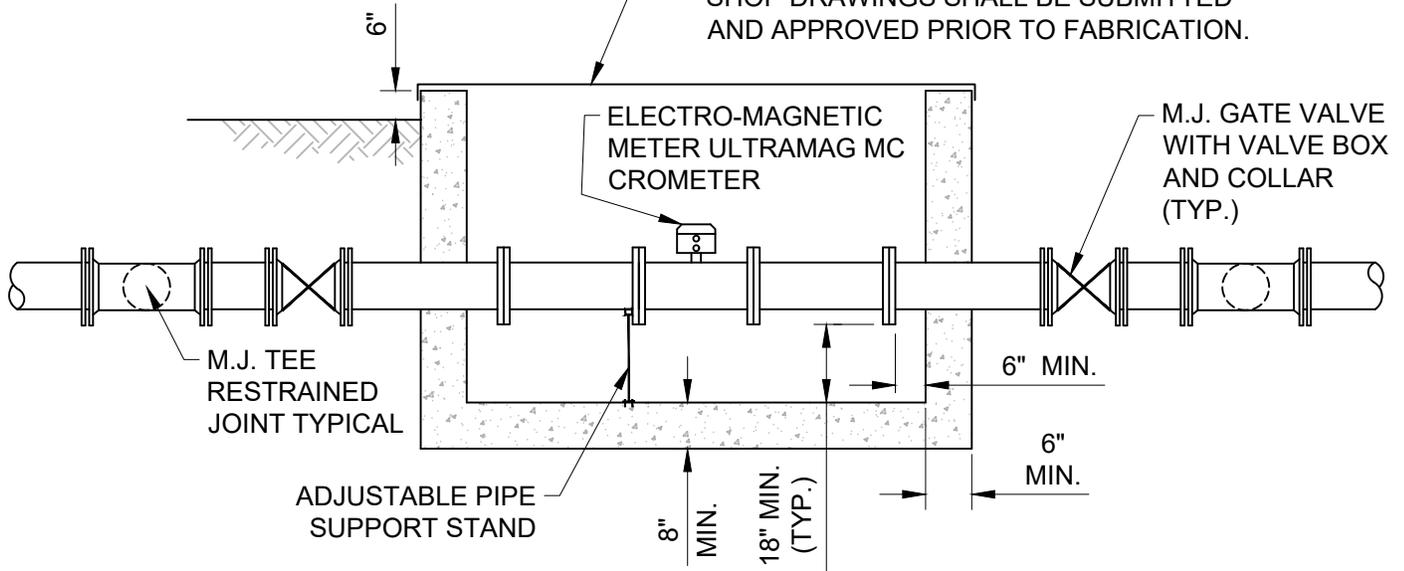
LIFT STATION FLOW METER
VAULT DETAIL - PLAN VIEW

DATE : MAY 2023
SCALE : NTS

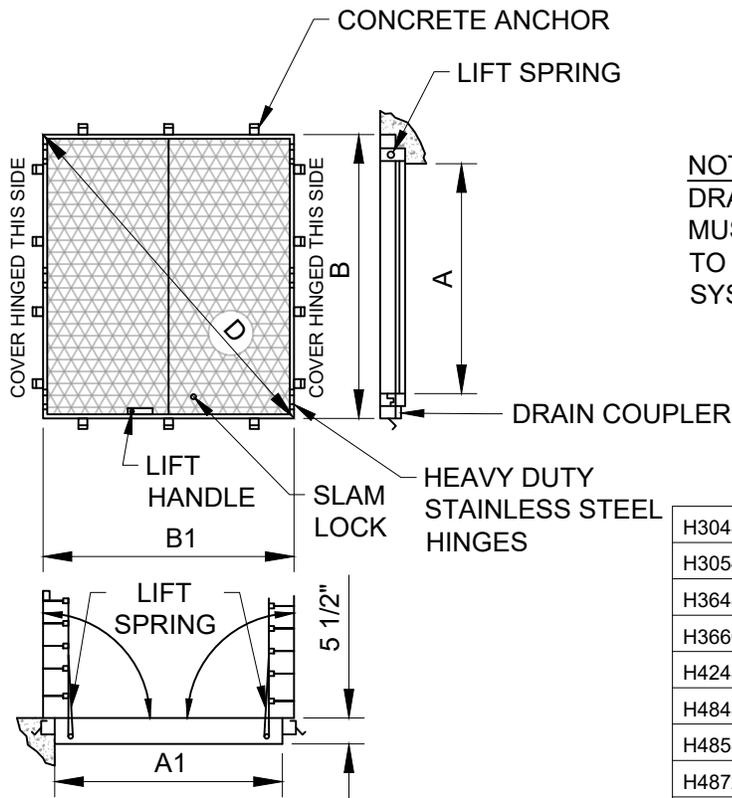
FIGURE : **WW-25**

NOTE: MUST HAVE MINIMUM OF 12" CLEARANCE FROM SIDE WALLS AND FLOORS TO EDGE OF PIPE

VAULT ACCESS COVERS SHALL BE 1/4" ALUMINUM DIAMOND PLATE, 2-PIECE DOUBLE-COVER STYLE, WITH CHANNEL FRAME, H2O RATED, WITH LIFT ASSIST. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED PRIOR TO FABRICATION.



SECTION VIEW



NOTE:
DRAIN COUPLER
MUST CONNECT
TO A DRAINAGE
SYSTEM

DOUBLE COVER STYLE

| | | | | | |
|-----------|---------------|-------|-------|-------|----------|
| H30481901 | 2 COVER HATCH | 30x48 | 42x54 | 3 1/2 | 68 7/16 |
| H30541901 | 2 COVER HATCH | 30x54 | 42x60 | 3 1/2 | 73 1/4 |
| H36481901 | 2 COVER HATCH | 36x48 | 48x54 | 5 1/2 | 72 1/4 |
| H36601901 | 2 COVER HATCH | 36x60 | 48x66 | 5 1/2 | 81 5/8 |
| H42481901 | 2 COVER HATCH | 42x48 | 54x54 | 5 1/2 | 76 3/8 |
| H48481901 | 2 COVER HATCH | 48x48 | 60x54 | 5 1/2 | 80 3/4 |
| H48581901 | 2 COVER HATCH | 48x54 | 60x60 | 5 1/2 | 84 7/8 |
| H48721901 | 2 COVER HATCH | 48x72 | 60x78 | 5 1/2 | 98 7/16 |
| H60601901 | 2 COVER HATCH | 60x60 | 72x66 | 5 1/2 | 97 11/16 |



BAY COUNTY
UTILITIES
STANDARD
DETAILS

**LIFT STATION FLOW METER
VAULT DETAIL - SECTION VIEW**

DATE : MAY 2023
SCALE : NTS

FIGURE : **WW-26**