# BRIGGS RANCH NORTH SEWER UPSIZING

## BEXAR COUNTY, TEXAS

### SAWS JOB NO. 23-1643

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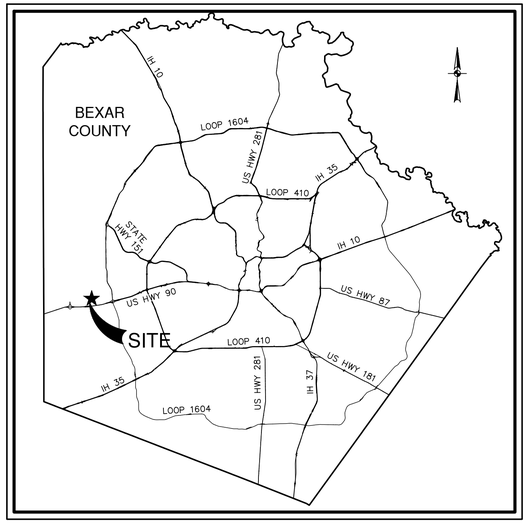
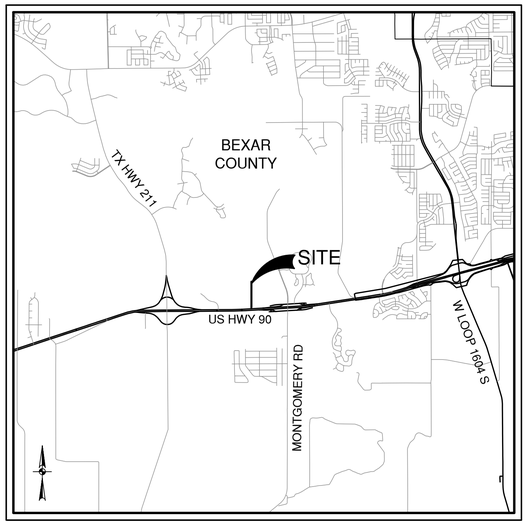



LOCATION MAP
NOT-TO-SCALE




LOCATION MAP
NOT-TO-SCALE

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PREPARED FOR:

CHESMAR HOMES
211 N. LOOP 1604 E, SUITE 175
SAN ANTONIO, TEXAS 78232

FEBRUARY 2024

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 I SAN ANTONIO, TX 78213 I 210.375.9000
TEXAS ENGINEERING FIRM #470 I TEXAS SURVEYING FIRM #10028800

STATE OF TEXAS
JASON T. DIAMOND
96532
LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
2-7-24

UPPER MEDINA - SOUTH SEWERSHED - DOS RIOS/LEON CREEK
BRIGGS RANCH NORTH SEWER UPSIZING

Developer's Name: CHESMAR HOMES
Address: 211 N. LOOP 1604 E, SUITE 175
City: SAN ANTONIO State: TEXAS ZIP: 78232
Phone# (210) 957-3395 FAX# N/A
SAWS Block Map# 080560, 080562 Total Acreage 1.45
Total Linear Footage of Pipe 1,785 LF ~ 21" PVC SEWER Plat No. N/A
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-1643

SHEET C0.00

PD JOB NO. 12719-07 BRIGGS RANCH NORTH SEWER UPSIZING

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# SAWS STANDARD GENERAL CONSTRUCTION NOTES

## GENERAL CONSTRUCTION

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:

   A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
   B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE."
   C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION."
   D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR CONSTRUCTION."
   E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM)

2. THE CONTRACTOR SHALL OBTAIN SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, HTTPS://APPS.SAWS.ORG/BUSINESS_CENTER/SPECS/CONSTSPECS/ UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.

3. THE CONTRACTOR IS TO NOTIFY AND MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 210-233-3500 (DURING REGULAR SAWS WORKING HOURS) AND PROVIDE NOTIFICATION PROCEDURES THE CONTRACTOR WILL USE TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS TWO (2) WEEKS PRIOR TO EXCAVATION. OUTSIDE OF REGULAR SAWS WORKING HOURS THE SAWS EOC SHOULD BE CONTACTED AT 210-704-7297.

4. IF NECESSARY, CONTRACTOR WILL COORDINATE USE OF SAWS PREMISES AT NO ADDITIONAL COST TO SAWS. SUCH EFFORTS INCLUDE, BUT ARE NOT LIMITED TO, OBTAINING SECURITY IDENTIFICATION BADGES REQUIRED FOR ACCESS TO SAWS FACILITIES.

5. LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.

6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. AS-BUILTS FOR SAWS INFRASTRUCTURE CAN BE OBTAINED AT WEBSITE BELOW. CONTRACTOR SHALL COORDINATE PHYSICAL LOCATES FOR SAWS INFRASTRUCTURE THROUGH THE SAWS INSPECTOR. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS INFRASTRUCTURE. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:

   SAN ANTONIO WATER SYSTEM:
   REQUEST AS-BUILTS: HTTPS://WWW.SAWS.ORG/SERVICE/LOCATES-SERVICE/
   COSA DRAINAGE 210-206-8433
   COSA TRAFFIC SIGNAL OPERATIONS 210-207-7720
   TEXAS STATEWIDE ONE CALL LOCATOR 1-800-545-6005 OR 811

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING, AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION AS A RESULT OF DAMAGES DONE BY THE PROJECT'S CONSTRUCTION.

8. CONTRACTOR SHALL NOT MAKE USE OF DUMPSTERS OR WASTE BINS THAT ARE INTENDED TO SERVE RESIDENTS AND/OR BUSINESSES.

9. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION AND BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT.

10. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.

11. ALL WORK WITHIN THE 100-YEAR FLOODPLAIN SHALL BE DONE IN ACCORDANCE WITH FLOODPLAIN DEVELOPMENT PERMIT.

12. ANY WORK COMPLETED WITHOUT PRIOR WRITTEN AUTHORIZATION WHICH IS NOT INCLUDED IN THESE PLANS AND SPECIFICATIONS WILL NOT BE COMPENSATED BY THE SAN ANTONIO WATER SYSTEM.

13. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS.

    WEEKEND WORK: CONTRACTORS ARE REQUIRED TO SUBMIT REQUEST TO THE SAWS INSPECTION CONSTRUCTION DEPARTMENT BY 12:00 PM ON THE WEDNESDAY PRIOR TO THE WEEKEND BEING REQUESTED. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG

    ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION AT NO COST TO SAWS.

14. PRE-CON SITE VIDEO: BEFORE THE START OF ANY CONSTRUCTION. THE SITE MUST BE VIDEO RECORDED BY THE CONTRACTOR WITH ONE COPY SUBMITTED TO SAWS INSPECTIONS. A PRE-SITE VIDEO WILL PROVIDE ACCURATE DOCUMENTATION OF THE EXISTING CONDITIONS (NSPI).

15. POWER POLE BRACING: CONTRACTORS SHOULD BE ADVISED THAT THERE ARE EXISTING OVERHEAD UTILITY POLES ALONG THE PROJECT CORRIDOR. CONTRACTORS SHOULD FURTHER BE ADVISED THAT IF THE DISTANCE FROM THE OUTSIDE FACE OF A UTILITY TRENCH TO THE FACE OF A UTILITY POLE IS LESS THAN 5 FEET, SAID UTILITY POLE IS SUBJECT TO BRACING, BASED ON A DETERMINATION MADE BY UTILITY POLE OWNER. IT IS ADVISABLE FOR THE CONTRACTOR TO REVIEW THE CONSTRUCTION DOCUMENTS AND VISIT THE CONSTRUCTION SITE TO DETERMINE POTENTIAL IMPACTS.

16. CONSTRUCTION SEQUENCING: IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SCHEDULE SEQUENCING FOR REMOVAL AND INSTALLATION OF EXISTING AND PROPOSED SAWS UTILITIES IN CONJUNCTION WITH GENERAL PROJECT CONSTRUCTION. SEQUENCE OF CONSTRUCTION ACTIVITIES SHALL BE CONSIDERED IN ORDER TO MINIMIZE THE EXTENT AND DURATION OF DISTURBANCES.

17. CONTRACTOR SHALL COMPLY WITH APPLICABLE REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE OVERSEEN BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA INFORMATION AND RELATED MATERIALS MAY BE OBTAINED AT HTTPS://WWW.OSHA.GOV/ OR AT THE OSHA SAN ANTONIO OFFICE LOCATED AT FOUNTAINHEAD TOWER, SUITE 605 8200 W. INTERSTATE 10 SAN ANTONIO, TX 78230 WHICH IS ALSO REACHABLE BY PHONE AT (210) 472-5040.

18. TRENCH EXCAVATION SAFETY PROTECTION: CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREAS IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

## SEWER SECTION

23. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:

    A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT 210-704-SAWS (210-704-7297). PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
    B. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO.
    C. CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF WATERWAYS.
    D. CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.
    E. CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS.
    F. MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING AND TELEVISING THE AFFECTED SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS.

    SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA.

    NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND SAWS.

24. THE CONTRACTOR SHALL PROVIDE BYPASS PUMPING OF SEWAGE AROUND EACH SEGMENT OF PIPE TO BE REPLACED, IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION ITEM NO. 865, "BYPASS PUMPING SMALL DIAMETER SANITARY SEWER MAINS" AND STANDARD SPECIFICATION ITEM NO. 864, "BYPASS PUMPING LARGE DIAMETER SANITARY SEWER MAINS" AS APPLICABLE. PAYMENT FOR SUCH WORK WILL BE MADE UNDER THE APPROPRIATE BID ITEM ASSOCIATED WITH SANITARY SEWER BYPASS PUMPING IN ACCORDANCE WITH SAWS STANDARD SPECIFICATIONS 865 AND 864.

25. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 210-233-3500 AND/OR SAWS PRODUCTION GROUPS AT LEAST TWO WEEKS OR MORE IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.

26. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR TOP OF MANHOLES TO MATCH THE FINISHED GRADE OF THE PROJECT'S IMPROVEMENTS. (NSPI)

27. MANHOLE REMOVAL: WHERE EXISTING MANHOLES ARE TO BE REPLACED BY THE CONTRACTOR, THE EXISTING MANHOLES SHALL BE REMOVED. (NSPI)

28. SMART MANHOLE COVERS: THE CONTRACTOR SHALL NOTIFY SAWS EOC AT 210-704-SAWS (210-233-7297) AND EITHER AMERICA ESPINOZA AT 210-233-2934 OR JOSE A. MARTINEZ AT 210-233-3071 A MINIMUM OF 72 HOURS, NOT COUNTING WEEKENDS OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE, IN ORDER TO HAVE SAWS REMOVE THE SMART COVER. ANY DAMAGE DONE TO THE SMART COVER WILL BE CHARGED TO THE CONTRACTOR THROUGH A CHANGE ORDER.

29. FLOW METER IN MANHOLES: THE CONTRACTOR SHALL NOTIFY BOBBY JOHNSON AT 210-233-3493 OR ABEL BORUNDA AT 210-233-3704 A MINIMUM OF 72 HOURS, NOT COUNTING WEEKEND OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE, IN ORDER TO HAVE SAWS REMOVE THE FLOW METER IN THE MANHOLE. ANY DAMAGE DONE TO THE FLOW METER WILL BE CHARGED TO THE CONTRACTOR THROUGH A CHANGE ORDER.

## EXISTING IMPROVEMENTS

ALL EXISTING IMPROVEMENTS WITHIN THE PROJECT AREA, WHICH ARE NOT COVERED UNDER THE UNIT PRICE BID PROPOSAL, SHALL BE PROTECTED OR REMOVED AND REPLACED TO EXISTING CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.

## HAULING AND STORAGE

HAULING AND/OR TEMPORARY STORAGE OF EQUIPMENT AND MATERIALS MAY BE NECESSARY, INCLUDING EXCAVATED MATERIAL AND SPOILS. CONTRACTOR SHALL INCLUDE IN HIS BID PRICE ALL COSTS ASSOCIATED WITH HAULING AND OFF-SITE STORAGE OF ALL MATERIALS AND/OR EQUIPMENT. ALSO REFER TO THE PROJECT SPECIFICATIONS.

## TREE PROTECTION NOTES

1. CONTRACTOR TO PROTECT ALL TREES WHEREVER POSSIBLE. DAMAGE TO TREES IDENTIFIED TO BE PROTECTED WILL BE MITIGATED AT THE CONTRACTOR'S SOLE EXPENSE.

2. PROTECT EXISTING TREES SIX INCH (6") DIAMETER AND LARGER. ALL TREES TO BE PRESERVED AS PART OF THE PROJECT SHALL BE PROTECTED AGAINST INJURY OR DAMAGE, INCLUDING CUTTING, SOIL COMPACTION, BREAKING OR SKINNING OF ROOTS, TRUNKS, OR BRANCHES DURING CONSTRUCTION OPERATIONS BY FENCING AS DESCRIBED BELOW. THE TREE PROTECTION SHALL BE PLACED BEFORE ANY EXCAVATION OR GRADING IS BEGUN AND MAINTAINED FOR THE DURATION OF THE CONSTRUCTION WORK. PROTECTION WILL ENCOMPASS THE ROOT PROTECTION ZONE WHICH WILL BE AT MINIMUM ONE FOOT (1.0') RADIUS PER INCH DIAMETER OF THE TREE TRUNK AT 4.5' ABOVE GROUND. NO MATERIAL SHALL BE STORED OR CONSTRUCTION OPERATION SHALL BE CARRIED ON WITHIN THE TREE PROTECTION FENCING, UNLESS AUTHORIZED BY THE OWNER. THE PROTECTION SHALL REMAIN UNTIL ALL WORK IS COMPLETED.

3. NO CONSTRUCTION ACTIVITIES SHALL BE PERFORMED WITHIN 5' FROM THE TRUNK OF A TREE THAT IS PROTECTED. TRENCH SHORING WILL BE REQUIRED INSIDE OF A ROOT PROTECTION ZONE. THE ROOT PROTECTION ZONE IS CALCULATED AS A RADIUS FROM THE TREE TRUNK EQUAL TO ONE FOOT PER DIAMETER INCH OF THE TREE.

4. THIS PROJECT IS SUBJECT TO REGULATIONS ESTABLISHED BY THE CITY OF SAN ANTONIO TREE ORDINANCE.

## STORM WATER PROTECTION AND EROSION CONTROL NOTES

1. CONTRACTOR SHALL INSTALL STORM WATER POLLUTION PREVENTION STRUCTURES INCLUDING BUT NOT LIMITED TO, SILT FENCING AND/OR ROCK BERMS IN ALL AREA TO BE IMPACTED BY CURRENT AND ONGOING CONSTRUCTION AND MAINTAIN SUCH STRUCTURES UNTIL SUITABLE GROUNDCOVER/REVEGETATION IS ACCEPTED. ALL STORM WATER POLLUTION PREVENTION STRUCTURES SHALL BE CONSTRUCTED WITHIN THE WATER LINE EASEMENTS. ANY FEATURES SHOWN OUTSIDE THESE AREAS ARE SHOWN FOR VISUAL CLARITY ONLY.

2. THE LOCATION OF ANY BEST MANAGEMENT PRACTICES (B.M.P.'S) SUCH AS SILT FENCING, ROCK BERMS, STABILIZED CONSTRUCTION ENTRANCE/EXIT, ETC. THAT MAY BE SHOWN ON THESE PLANS ARE SUBJECT TO FIELD VERIFICATION. CONTRACTOR SHALL ADJUST THE LOCATIONS OF B.M.P.'S TO BEST ACCOMMODATE THE CONDITIONS AND TOPOGRAPHY ENCOUNTERED DURING CONSTRUCTION. QUESTIONS REGARDING THE PLACEMENT AND/OR CHANGES CONCERNING B.M.P.'S SHALL BE REFERRED TO THE OWNER AND THE COUNTY. THE CONTRACTOR IS TO ENSURE THAT SEDIMENTATION AND EROSION WILL BE CONTAINED WITHIN THE PROJECT WORK AREAS AND KEPT OFF ROADWAYS AND ADJACENT PROPERTIES AND OUT OF DRAINAGE CHANNELS AND WATER COURSES.

## CPS ENERGY NOTES

1. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING UNDER "HIGH VOLTAGE TRANSMISSION LINES". A WORKING HEIGHT OF 30' FROM GROUND ELEVATION WILL BE OBSERVED WHEN WORKING UNDER THE HIGH VOLTAGE LINE. COORDINATE ALL WORK WITH CPS ENERGY.

## BEXAR COUNTY FLOODPLAIN GENERAL CONSTRUCTION NOTE

1. CONTRACTOR IS TO MAINTAIN UNRESTRICTED DRAINAGE OF THE PROJECT SITE AND ADJACENT AREAS DURING CONSTRUCTION.

2. NO CONSTRUCTION AND/OR WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING NATURAL DRAINAGE OR PLACED WITHIN THE LIMITS OF EXISTING FLOODPLAIN.

## TXDOT GENERAL CONSTRUCTION NOTES

1. WITHIN TXDOT ROW, THE CONTRACTOR SHALL ADHERE TO THE TXDOT UTILITY PERMIT AND SPECIAL CONDITIONS. CONTRACTOR SHALL NOTIFY SAWS 60 DAYS PRIOR TO WORK IN TXDOT ROW.

2. ANY DAMAGE TO EXISTING IMPROVEMENTS WITHIN THE TXDOT ROW CAUSED BY THE CONTRACTOR SHALL BE REPLACED TO ORIGINAL OR BETTER CONDITION (AT NO ADDITIONAL COST TO SAWS OR TXDOT) PER TXDOT SPECIFICATIONS.

**OVERALL QUANTITY TABLE**

| ITEM NO | ITEM DESCRIPTION | UNIT | QUANTITY |
|---|---|---|---|
| 502.1 | BARRICADES, SIGNS AND TRAFFIC HANDLING (TXDOT SPEC) | LS | 1 |
| 540 | SWPPP | LS | 1 |
| 550 | TRENCH EXCAVATION PROTECTION | LF | 1813 |
| 848 | 21" PVC SANITARY SEWER MAIN (OPEN CUT) (5'-10' DEPTH) | LF | 1813 |
| 852 | REMOVE EXISTING MANHOLE AND REPLACE WITH 6' DIAMETER FRP MANHOLE, MITER WITH STANDARD WATERTIGHT RING AND COVER | EA | 2 |
| 852 | 4' DIAMETER VENTED FRP MANHOLE WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 852 | 4' DIAMETER FRP MANHOLE, MITER WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 852 | 4' DIAMETER FRP DROP MANHOLE, MITER WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 852 | 4' DIAMETER FRP MANHOLE WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 858 | CONCRETE ENCASEMENT | CY | 20 |
| 862 | ABANDONMENT OF SANITARY SEWER MAINS (OVER 15") | LF | 1808 |
| 862 | ABANDONMENT OF SANITARY SEWER MANHOLES | EA | 5 |
| 864 | BYPASS PUMPING LARGE DIAMETER SANITARY SEWER MAINS | LS | 1 |
| 865 | BYPASS PUMPING SMALL DIAMETER SANITARY SEWER MAINS | LS | 1 |
| 866 | SEWER MAIN TV INSPECTION, POST (ALL SIZES) | LF | 1,813 |
| 100 | MOBILIZATION (MAX 10% OF ITEMS 1-14) | LS | 1 |
| 101 | PREPARATION OF RIGHT-OF-WAY (MAX 5% OF ITEMS 1-14) | LS | 1 |

UPPER MEDINA - SOUTH SEWERSHED - DOS RIOS/LEON CREEK
BRIGGS RANCH NORTH SEWER UPSIZING

Developer's Name: CHESMAR HOMES
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Phone# (210) 957-3395 FAX# N/A
SAWS Block Map# 080560, 080562 Total Acreage 1.45
Total Linear Footage of Pipe 1,785 LF ~ 21" PVC SEWER Plat No. N/A
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-1643

| NO. | REVISION | DATE |
|---|---|---|

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LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
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PAPE-DAWSON ENGINEERS
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TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

# BRIGGS RANCH NORTH SEWER UPSIZING
BEXAR COUNTY, TEXAS

GENERAL NOTES AND QUANTITIES

PLAT NO.
JOB NO. 12719-07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C1.00

Date: February 8, 2024, 11:06 AM - User ID: amohammed
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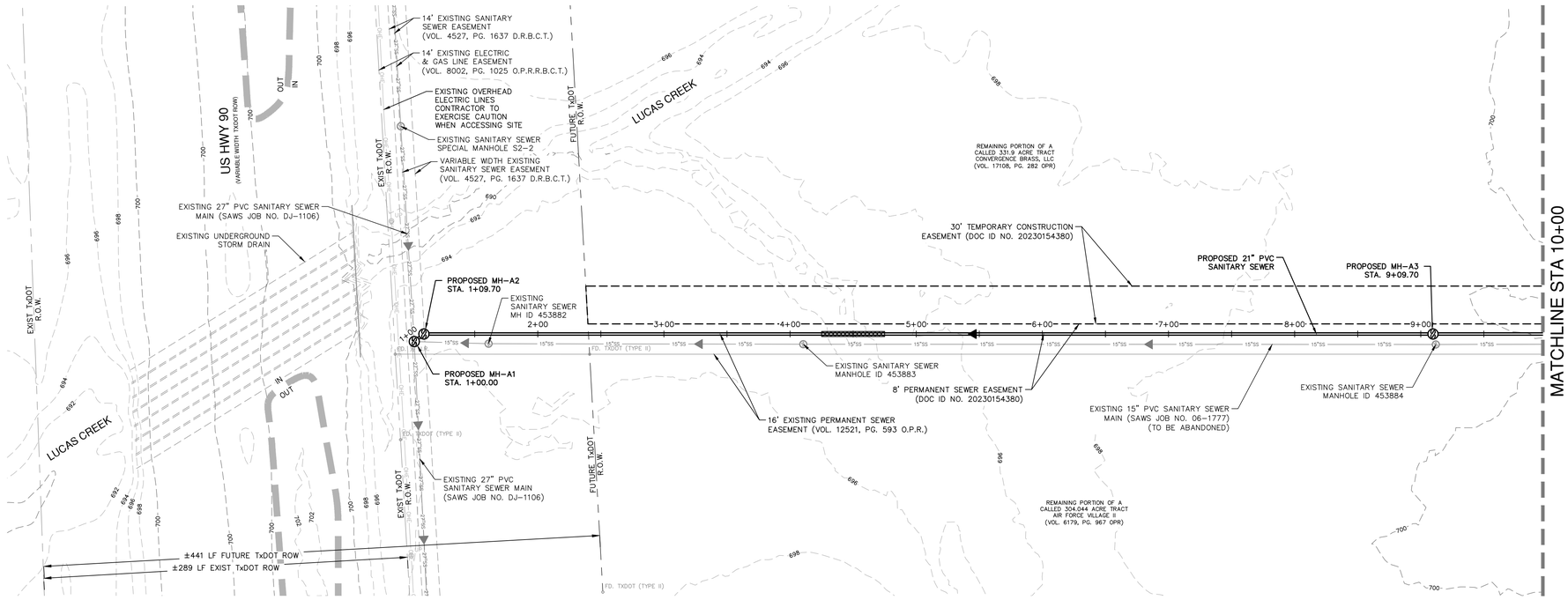


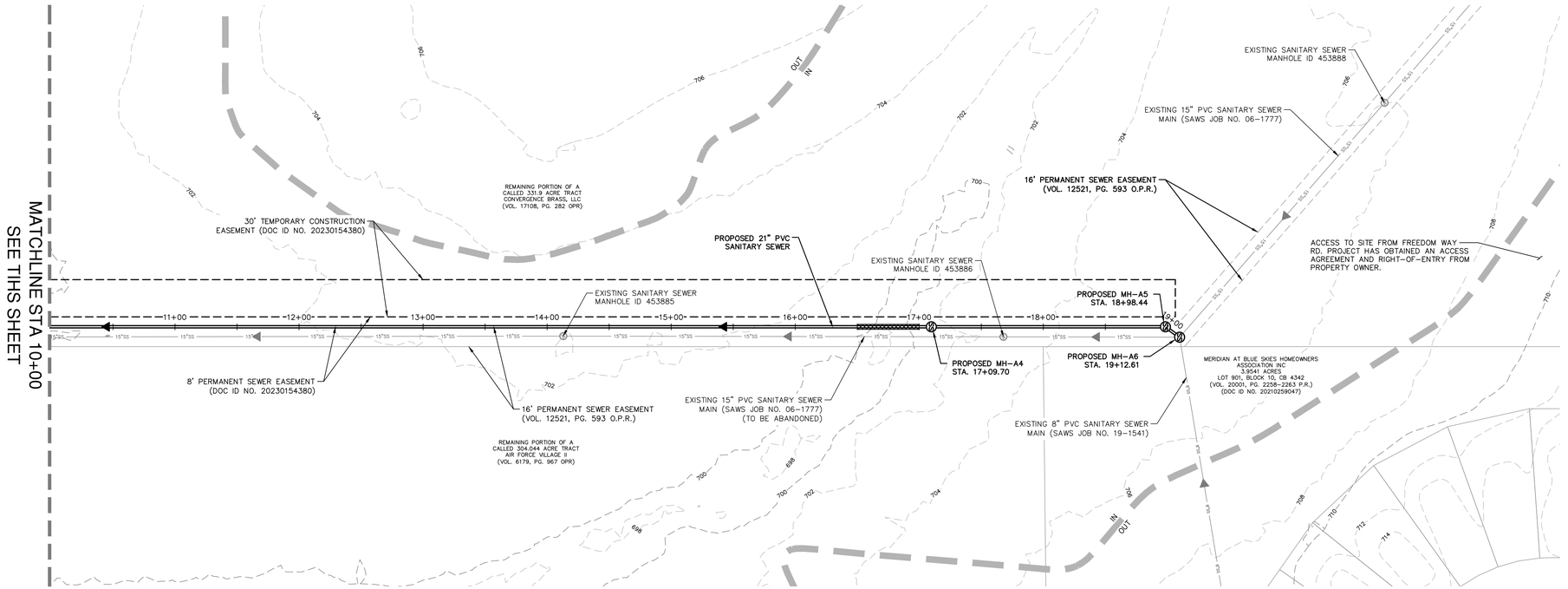


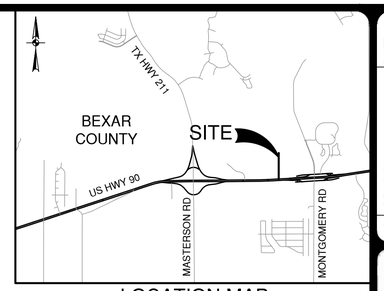


LOCATION MAP
NOT-TO-SCALE

SCALE: 1"= 50'
0' 50' 100' 150'

LEGEND

- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- PERMANENT SEWER EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- 100 YR FLOODPLAIN LIMITS
- FUTURE R.O.W.
- EXIST R.O.W.
- EXIST PARCEL BOUNDARY

UPPER MEDINA - SOUTH SEWERSHED - DOS RIOS/LEON CREEK
BRIGGS RANCH NORTH SEWER UPSIZING

Developer's Name: CHESMAR HOMES
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# BRIGGS RANCH NORTH SEWER UPSIZING

BEXAR COUNTY, TEXAS

OVERALL SANITARY SEWER PLAN

PLAT NO.
JOB NO. 12719-07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C2.00

Date: February 8, 2024, 11:07 AM - User ID: amohammed
File: P:\127\19\07\Design\Civil\SSDA-127190?.dwg



100% SUBMITTAL

| EXISTING SEWER LINE TO BE ABANDONED PER SAWS SPECIFICATION 862 | | | |
|---|---|---|---|
| FROM MANHOLE | TO MANHOLE | SIZE OF PIPE (INCH) | LENGTH OF PIPE (LF) |
| 453910 | 453882 | 15 | 59 |
| 453882 | 453883 | 15 | 250 |
| 453883 | 453884 | 15 | 501 |
| 453884 | 453885 | 15 | 501 |
| 453885 | 453886 | 15 | 355 |
| 453886 | 453887 | 15 | 142 |

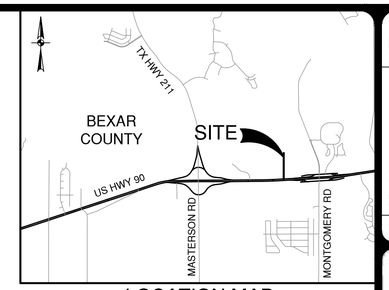
| EXISTING MANHOLES TO BE ABANDONED |
|---|
| 453882 |
| 453883 |
| 453884 |
| 453885 |
| 453886 |
| REMOVE RING AND COVER, CUT AND PLUG ALL SIDES IN ACCORDANCE WITH SAWS SPECIFICATION 862 |

## SEWER ABANDONMENT NOTES

1. LINES 15" OR GREATER IN DIAMETER AND INDICATED AS "ABANDONED" SHALL BE FILLED WITH GROUT FOR THE ENTIRE LENGTH OF THE PIPE IN ACCORDANCE WITH SAWS SPECIFICATION NO. 862.
2. GROUT SHALL CONFORM TO SAWS SPECIFICATION ITEM NO. 862. THE GROUT MIX DESIGN SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR REVIEW.
3. MANHOLES SHOWN PROPOSED FOR ABANDONMENT SHALL BE REMOVED TO A MINIMUM OF 2 FEET BELOW GRADE AND BACKFILLED IN ACCORDANCE WITH SAWS SPECIFICATION NO. 862.
4. ABANDONING OF SANITARY SEWER LINES AND MANHOLES SHALL NOT OCCUR UNTIL ALL EXISTING SANITARY SEWER SERVICES HAVE BEEN TRANSFERRED TO PROPOSED LINE AS DIRECTED BY THE INSPECTOR.

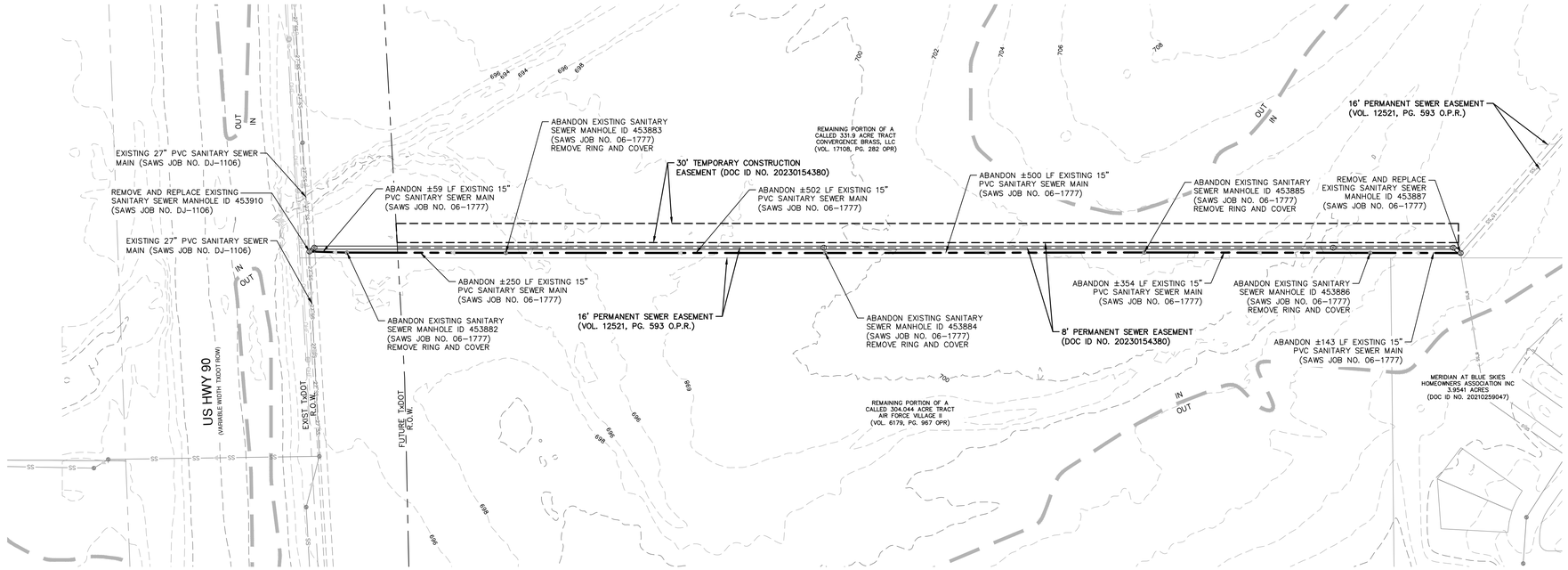
## EXISTING LINES ABANDONMENT NOTES

1. ALL EXISTING SANITARY SEWER LINES TO BE ABANDONED MUST BE CCTV INSPECTED PRIOR TO GROUTING FOR POSSIBLE, EXISTING UNKNOWN SERVICE LATERAL(S). ALL SERVICE LATERALS MUST BE TIED TO NEW LINES PRIOR TO ABANDONMENT. CONTRACTOR SHALL NOTIFY SAWS IMMEDIATELY IF UNKNOWN ACTIVE LATERAL CONNECTIONS ARE ENCOUNTERED.




LOCATION MAP
NOT-TO-SCALE

SCALE: 1"= 100'
0' 100' 200' 300'




## LEGEND

- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- PERMANENT SEWER EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- 100 YR FLOODPLAIN LIMITS
- PARCEL BOUNDARY
- SANITARY SEWER ABANDONMENT

| QUANTITY TABLE | | | |
|---|---|---|---|
| ITEM | DESCRIPTION | UNIT | QTY |
| 862 | ABANDONMENT OF SANITARY SEWER MAINS (OVER 15") | LF | 1,808 |
| 862 | ABANDONMENT OF SANITARY SEWER MANHOLES | EA | 5 |

UPPER MEDINA - SOUTH SEWERSHED - DOS RIOS/LEON CREEK
BRIGGS RANCH NORTH SEWER UPSIZING

Developer's Name: CHESMAR HOMES
Address: 211 N. LOOP 1604 E, SUITE 175
City: SAN ANTONIO State: TEXAS ZIP: 78232
Phone# (210) 957-3395 FAX# N/A
SAWS Block Map# 080560, 080562 Total Acreage 1.45
Total Linear Footage of Pipe 1,785 LF ~ 21" PVC SEWER Plat No. N/A
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-1643

| DATE | NO. | REVISION |
|---|---|---|
| | | |

STATE OF TEXAS
JASON T. DIAMOND
96532
LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
2-7-24


PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #100288-00


# BRIGGS RANCH NORTH SEWER UPSIZING

BEXAR COUNTY, TEXAS

ABANDONMENT PLAN

PLAT NO.
JOB NO. 12719-07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C2.30

Date: February 8, 2024, 11:07 AM — User ID: amohammed
File: P: \12\19\07\Design\Civil\SSDM-127107.dwg



100% SUBMITTAL

## GENERAL SEWER NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:

   A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT 210-704-SAWS (210-704-7297). PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
   B. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO.
   C. CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF WATERWAYS.
   D. CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.
   E. CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS.
   F. MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING AND TELEVISING THE AFFECTED SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS.

   SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA.

   NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINE SET BY THE TCEQ AND SAWS.

2. THE CONTRACTOR SHALL PROVIDE BYPASS PUMPING AND FLOW MANAGEMENT AS NECESSARY OF SEWAGE AROUND EACH SEGMENT OF PIPE TO BE REPLACED IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION 865.

3. THE BYPASS PUMPING PLAN SHOWN ON THE DRAWING IS ONLY SUGGESTED FOR THE CONTRACTOR'S CONSIDERATION. CONTRACTOR SHALL SUBMIT BYPASS AND PHASING PLAN IN ACCORDANCE WITH SAWS STANDARD SPECIFICATIONS 864 & 865 TO SAWS FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF THE CONSTRUCTION.

4. SEWER WORK AND CLEAN UP SHALL BE IN ACCORDANCE WITH GUIDELINES SET FORTH BY TCEQ AND SAWS. CONTRACTOR SHALL IDENTIFY AND TRAIN PERSONNEL RESPONSIBLE FOR SPILLAGE PREVENTION AND CONTROL. CONTRACTOR SHALL DOCUMENT AND EDUCATE EMPLOYEES IN ADVANCE OF WORK ABOUT THE WORK ENVIRONMENT INCLUDING WHAT TO DO WHEN THERE ARE SEWER LEAKS AND HOW TO WORK SAFELY AROUND RAW SEWAGE.

5. ANY SMART COVERS AND/OR FLOW METERS PRESENT NEED TO BE REMOVED BY SAWS PRIOR TO CONSTRUCTION TO AVOID DAMAGE TO EQUIPMENT.

6. BYPASS PIPE ALIGNMENTS SHOWN HEREIN ARE FOR GENERAL ALIGNMENT ROUTING ONLY. THE CONTRACTOR SHALL INSTALL ALL BYPASS PIPING DURING CONSTRUCTION WITHIN EXISTING OR PROPOSED SANITARY SEWER EASEMENTS OR PUBLIC RIGHT OF WAY.

7. ANY ADDITIONAL STRUCTURES OR MANHOLES (DOGHOUSE, TEMPORARY, OR PERMANENT) REQUIRED TO INSTALL THE CONTRACTOR'S DESIGNED BYPASS PUMPING PLAN SHOULD BE INCLUDED IN THE BID PRICE FOR THE BYPASS PUMPING.

### BRIGGS RANCH NORTH SEWER UPSIZING ESTIMATED FLOWS

| US MH | DS MH | DIA. (IN) | ESTIMATED DESIGN FLOW (GPM) |
|---|---|---|---|
| 1189048 | 453887 | 8 | 344* |
| 453888 | 453887 | 15 | 1839* |
| 453882 | 453910 | 15 | 2183* |
| 75872 | 453910 | 27 | 10146* |

*ESTIMATED DESIGN FLOW (FULL FLOW CAPACITY OF EXISTING PIPE) WAS CALCULATED AT MANHOLES WHERE FLOW DATA WAS NOT AVAILABLE. PER THE SAWS SPECIFICATIONS 864 & 865 THE CONTRACTOR IS RESPONSIBLE TO CONFIRM THE DESIGN FLOWS AND DESIGN A BYPASS PUMPING ACCORDINGLY.

## SUGGESTED CONSTRUCTION SEQUENCING

PHASE 1: INSTALL SANITARY SEWER MAIN
1. MOBILIZE AND PREPARE SITE
2. INSTALL SANITARY SEWER MAIN FROM MH-A2 TO MH-A5 TEST MANHOLES AND PIPELINE

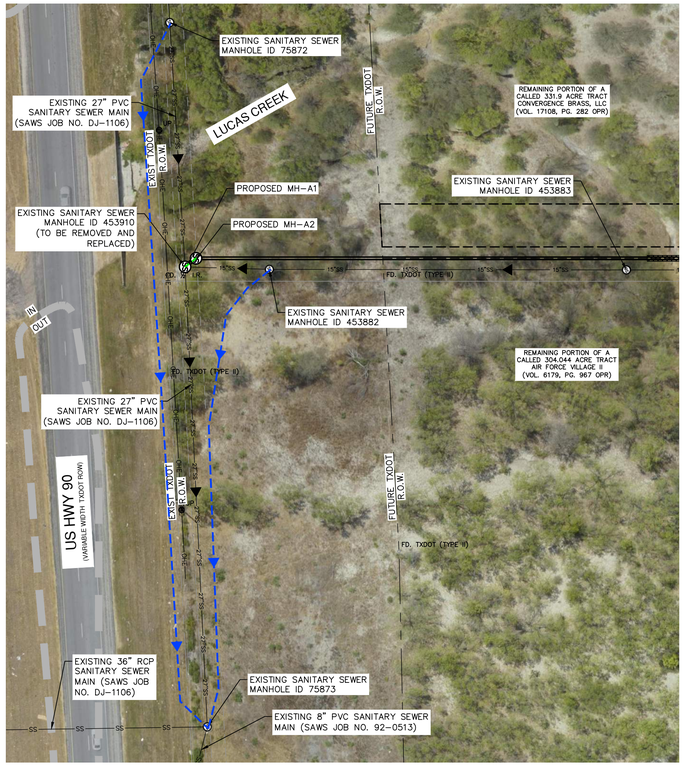
PHASE 2: REMOVE AND REPLACE MANHOLE ID 453910
1. MOBILIZE AND PREPARE SITE WITHIN TXDOT ROW
2. SET UP BYPASS #1 PER CONTRACTOR'S SUBMITTED AND APPROVED BYPASS PUMPING PLAN
3. INSTALL PLUG ON INCOMING 27" LINE DJ-1106 AT EXISTING MH 75872
4. INSTALL PLUG ON INCOMING 15" LINE 06-1777 AT EXISTING MH 453882
5. REMOVE EXISTING MANHOLE ID 453910, REPLACE WITH MH-A1, INSTALL SANITARY SEWER FROM MH-A1 TO MH-A2, INSTALL MH-A2
6. TEST MANHOLES AND PIPELINE
7. INTRODUCE FLOWS FROM EXISTING 27" PVC SANITARY SEWER MAIN (SAWS JOB NO. DJ-1106) TO MH-A1

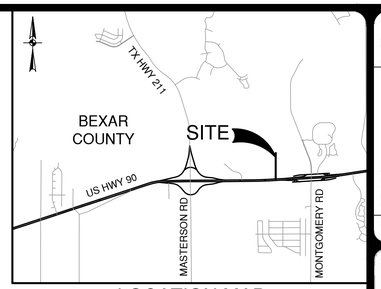
PHASE 3: REMOVE AND REPLACE MANHOLE ID 453887
1. MOBILIZE AND PREPARE SITE
2. SET UP BYPASS #2 PER CONTRACTOR'S SUBMITTED AND APPROVED BYPASS PUMPING PLAN
3. INSTALL PLUG ON INCOMING 15" LINE 06-1777 AT EXISTING MH 453912
4. INSTALL PLUG ON INCOMING 8" LINE 19-1541 AT EXISTING MH 1189048
5. REMOVE EXISTING MANHOLE ID 453887, REPLACE WITH MH-A6, INSTALL SANITARY SEWER MAIN FROM MH-A5 TO MH-A6
6. TEST MANHOLES AND PIPELINE
7. INTRODUCE FLOWS TO INSTALLED SANITARY SEWER MAIN

PHASE 4: ABANDON EXISTING SEWER MAIN
1. CONTRACTOR TO CCTV (PRE-ABANDONMENT) THE EXISTING 15" SANITARY SEWER MAIN (SAWS JOB NO. 06-1777) TO VERIFY ALL CONNECTIONS HAVE BEEN ACCOUNTED FOR
2. CONTRACTOR TO ABANDON EXISTING 15" SANITARY SEWER MAIN (SAWS JOB NO. 06-1777) PER SAWS SPEC 862: ABANDONMENT OF SANITARY SEWER MAINS (OVER 15")

## SUGGESTED BYPASS SETUP 1

(DOWNSTREAM TIE IN)




## LOCATION MAP

NOT-TO-SCALE

SCALE: 1"= 50'

0' 50' 100' 150'

LEGEND

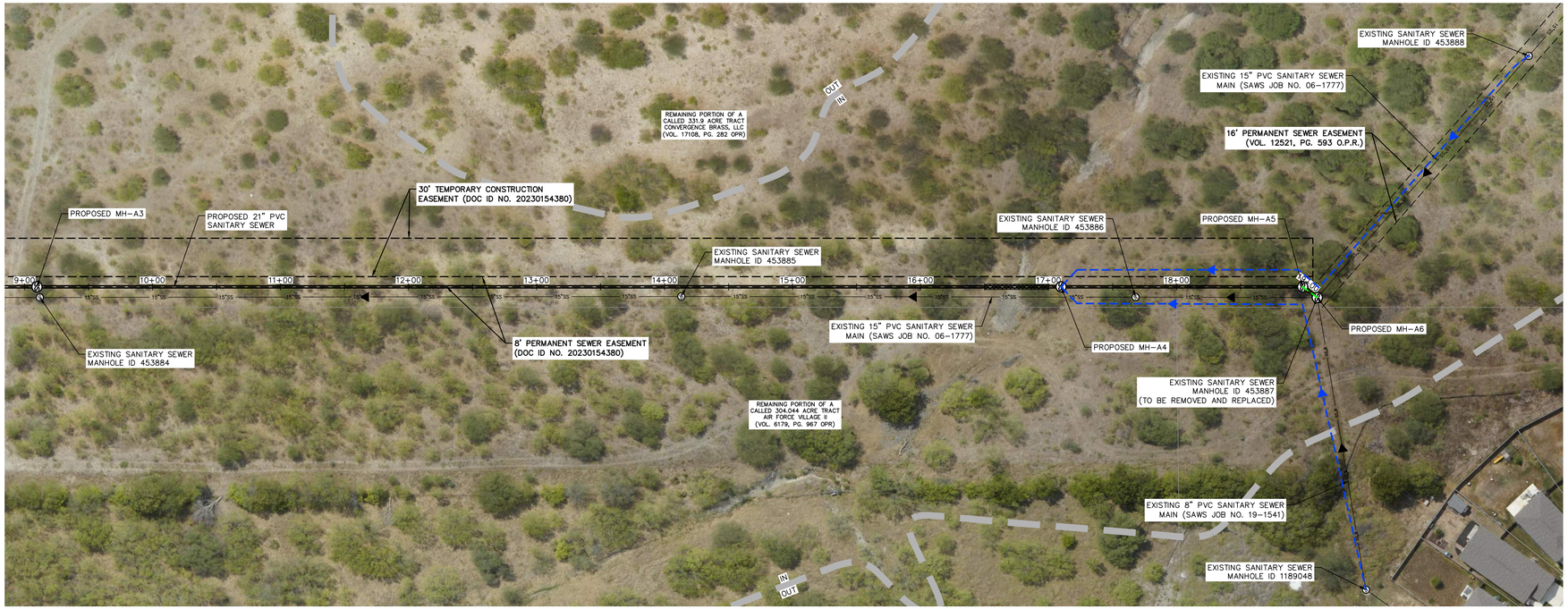
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- PERMANENT SEWER EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- 100 YR FLOODPLAIN LIMITS
- PROPOSED BYPASS LINE
- PROPOSED SANITARY SEWER WORK
- FUTURE R.O.W.
- EXIST R.O.W.
- EXIST PARCEL BOUNDARY

### QUANTITY TABLE

| ITEM | DESCRIPTION | UNIT | QTY |
|---|---|---|---|
| 864 | BYPASS PUMPING LARGE DIAMETER SANITARY SEWER MAINS | LS | 1 |
| 865 | BYPASS PUMPING SMALL DIAMETER SANITARY SEWER MAINS | LS | 1 |

## SUGGESTED BYPASS SETUP 2

(UPSTREAM TIE IN)




UPPER MEDINA - SOUTH SEWERSHED - DOS RIOS/LEON CREEK

BRIGGS RANCH NORTH SEWER UPSIZING

Developer's Name: CHESMAR HOMES
Address: 211 N. LOOP 1604 E, SUITE 175
City: SAN ANTONIO State: TEXAS ZIP: 78232
Phone# (210) 957-3395 FAX# N/A
SAWS Block Map#: 080560, 080562 Total Acreage: 1.45
Total Linear Footage of Pipe: 1,785 LF ~ 21" PVC SEWER Plat No.: N/A
Number of Lots: N/A TOTAL EDU'S: N/A SAWS JOB NO.: 23-1643

| NO. | REVISION | DATE |
|---|---|---|
| | | |

STATE OF TEXAS
JASON T. DIAMOND
96532
LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
2-7-24


PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800


# BRIGGS RANCH NORTH SEWER UPSIZING

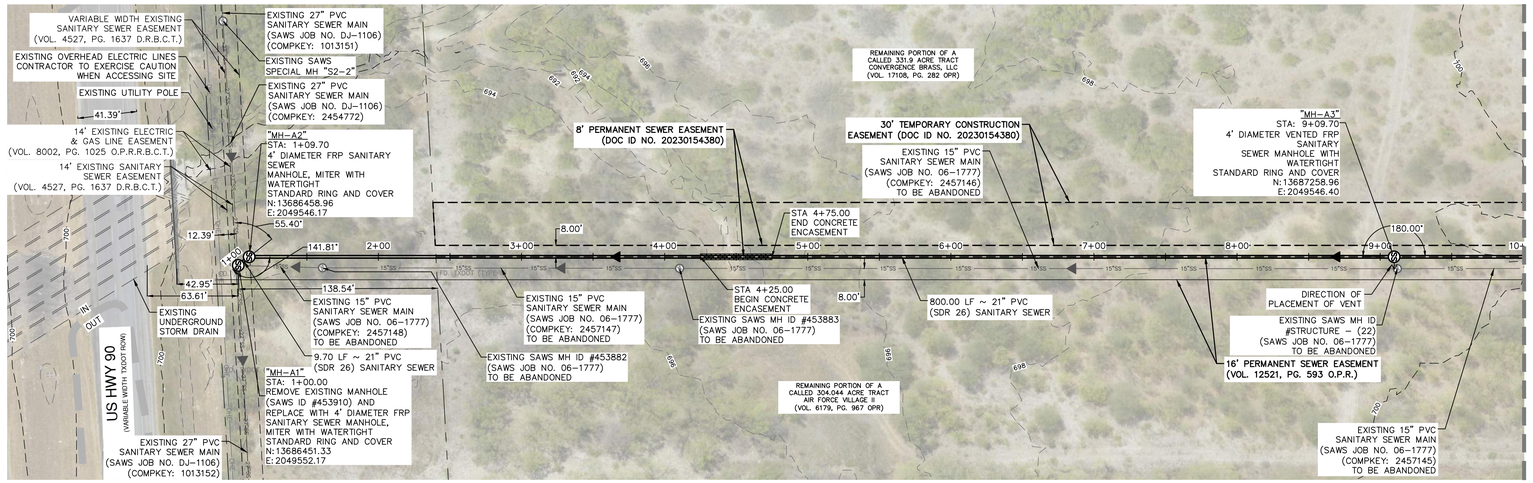
BEXAR COUNTY, TEXAS

SUGGESTED BYPASS AND SEQUENCING PLAN

PLAT NO.
JOB NO. 12719-07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C2.40

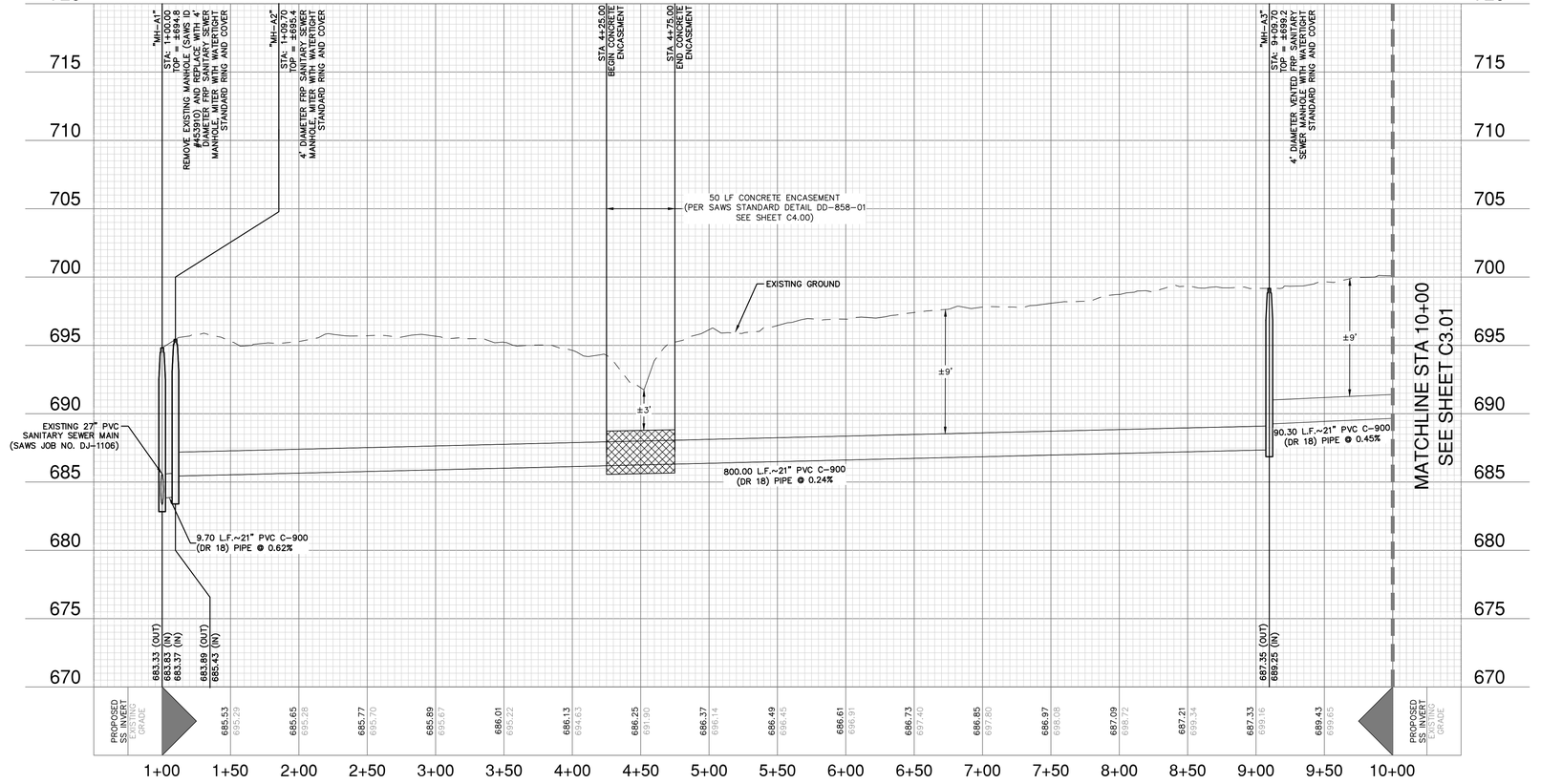
100% SUBMITTAL

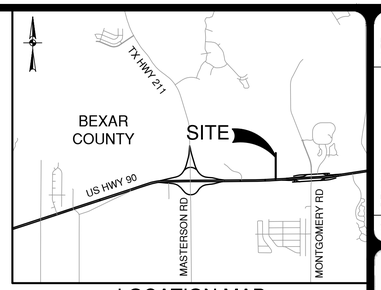
Date: February 8, 2024, 11:09 AM – User ID: amohammed
File: P:\127\19\07\Design\Civil\STM-127107.dwg




SANITARY SEWER LINE "A"
STA. 1+00.00 TO 10+00.00

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'




LOCATION MAP
NOT-TO-SCALE

SCALE: 1"= 50'
0' 50' 100' 150'

LEGEND

- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- PERMANENT SEWER EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- 100 YR FLOODPLAIN LIMITS
- PARCEL BOUNDARY

QUANTITY TABLE

| ITEM | DESCRIPTION | UNIT | QTY |
|---|---|---|---|
| 550 | TRENCH EXCAVATION PROTECTION | LF | 900 |
| 848 | 21" PVC SANITARY SEWER MAIN (OPEN CUT) (5'-10' DEPTH) | LF | 900 |
| 852 | REMOVE EXISTING MANHOLE AND REPLACE WITH 4' DIAMETER FRP MANHOLE, MITER WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 852 | 4' DIAMETER FRP MANHOLE, MITER WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 852 | 4' DIAMETER VENTED FRP MANHOLE WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 858 | CONCRETE ENCASEMENT | CY | 10 |
| 866 | SEWER MAIN TV INSPECTION, POST (ALL SIZES) | LF | 900 |

## CONTRACTOR NOTE

EXISTING 15" SEWER MAIN (SAWS JOB NO. 06-1777) SHOULD REMAIN IN SERVICE DURING CONSTRUCTION OF THE NEW 21" SEWER MAIN. THE ABANDONMENT OF THE EXISTING 15" SEWER MAIN (SAWS JOB NO. 06-1777) SHOULD NOT OCCUR UNTIL IT IS VERIFIED THAT ALL FLOWS HAVE BEEN TRANSFERRED TO THE NEW MAIN.

UPPER MEDINA - SOUTH SEWERSHED - DOS RIOS/LEON CREEK
BRIGGS RANCH NORTH SEWER UPSIZING

Developer's Name: CHESMAR HOMES
Address: 211 N. LOOP 1604 E, SUITE 175
City: SAN ANTONIO State: TEXAS ZIP: 78232
Phone# (210) 957-3395 FAX# N/A
SAWS Block Map# 080560, 080562 Total Acreage 1.45
Total Linear Footage of Pipe 1,785 LF ~ 21" PVC SEWER Plat No. N/A
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-1643

| NO. | REVISION | DATE |
|---|---|---|
| | | |

STATE OF TEXAS
JASON T. DIAMOND
96532
LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
2-7-24

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

# BRIGGS RANCH NORTH SEWER UPSIZING

BEXAR COUNTY, TEXAS

SANITARY SEWER LINE PLAN AND PROFILE
STA. 1+00 TO STA. 10+00

PLAT NO.
JOB NO. 12719-07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C3.00

Date: February 8, 2024, 11:12 AM — User ID: amohammed
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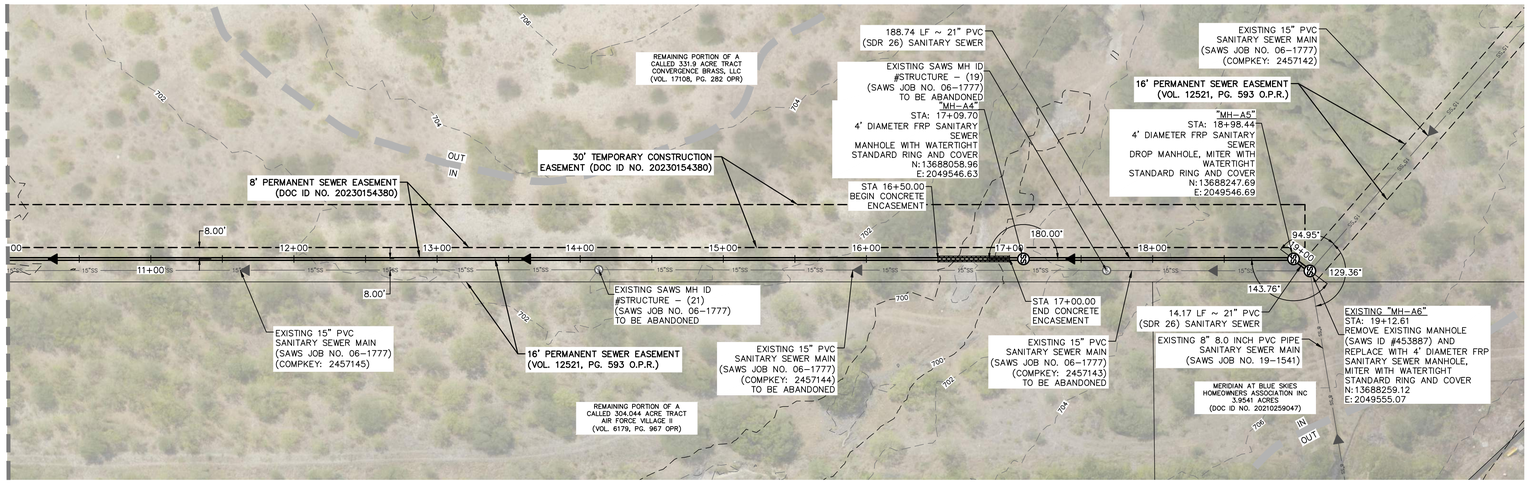
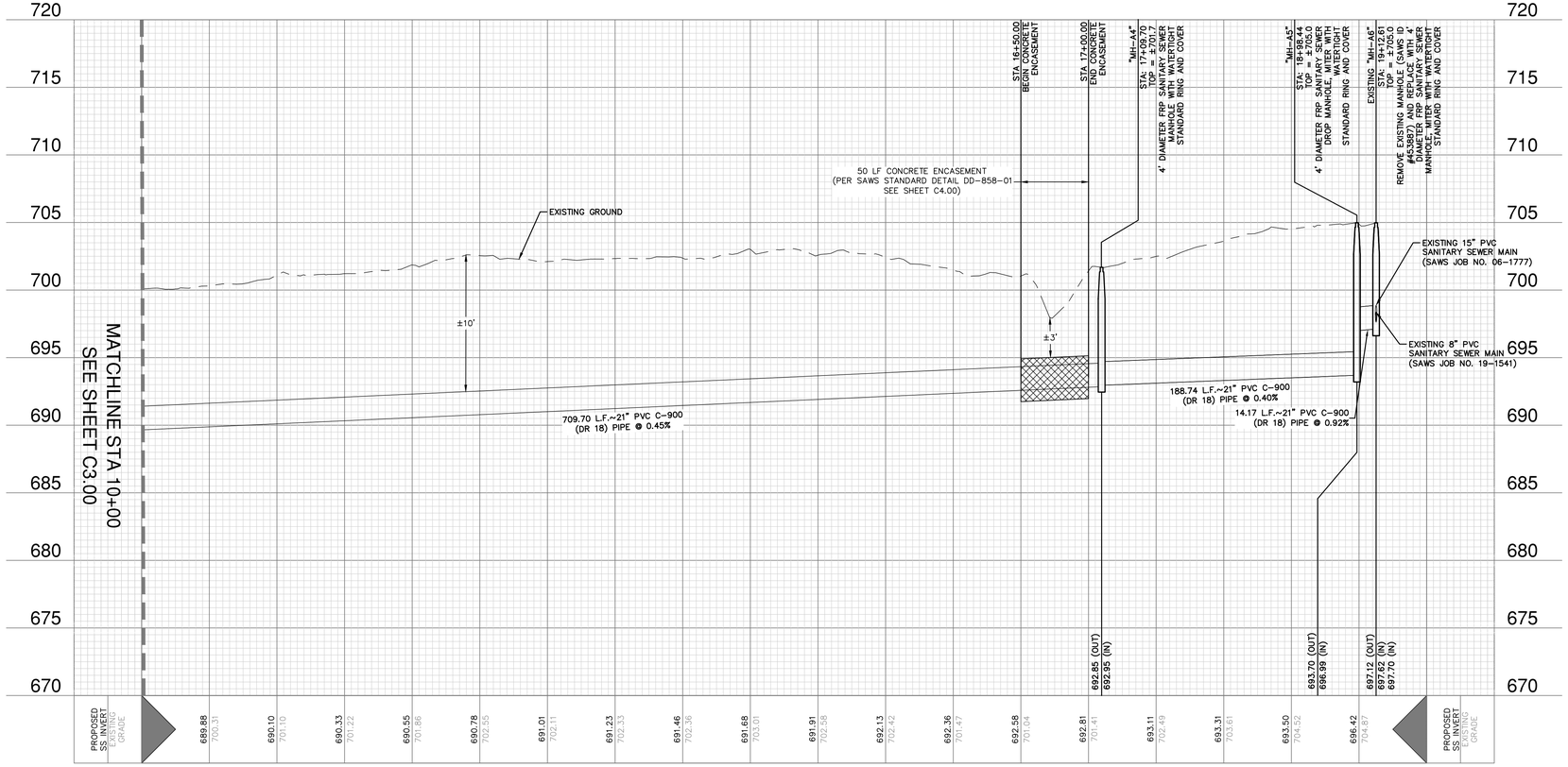
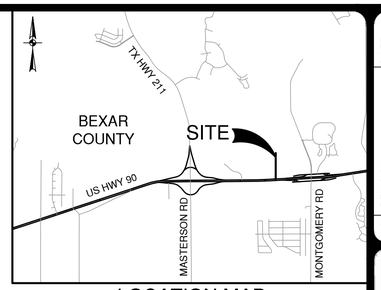



SANITARY SEWER LINE "A"
STA. 10+00.00 TO 19+12.61

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'




LOCATION MAP
NOT–TO–SCALE

SCALE: 1"= 50'
0' 50' 100' 150'

LEGEND

- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- PERMANENT SEWER EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- 100 YR FLOODPLAIN LIMITS
- PARCEL BOUNDARY

QUANTITY TABLE

| ITEM | DESCRIPTION | UNIT | QTY |
|---|---|---|---|
| 550 | TRENCH EXCAVATION PROTECTION | LF | 913 |
| 848 | 21" PVC SANITARY SEWER MAIN (OPEN CUT) (5'–10' DEPTH) | LF | 913 |
| 852 | REMOVE EXISTING MANHOLE AND REPLACE WITH 4' DIAMETER FRP MANHOLE, MITER WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 852 | 4' DIAMETER FRP DROP MANHOLE, MITER WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 852 | 4' DIAMETER FRP MANHOLE WITH STANDARD WATERTIGHT RING AND COVER | EA | 1 |
| 858 | CONCRETE ENCASEMENT | CY | 10 |
| 866 | SEWER MAIN TV INSPECTION, POST (ALL SIZES) | LF | 913 |

UPPER MEDINA - SOUTH SEWERSHED - DOS RIOS/LEON CREEK
BRIGGS RANCH NORTH SEWER UPSIZING

Developer's Name: CHESMAR HOMES
Address: 211 N. LOOP 1604 E, SUITE 175
City: SAN ANTONIO State: TEXAS ZIP: 78232
Phone# (210) 957–3395 FAX# N/A
SAWS Block Map# 080560, 080562 Total Acreage 1.45
Total Linear Footage of Pipe 1,785 LF ~ 21" PVC SEWER Plat No. N/A
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23–1643

| NO. | REVISION | DATE |
|---|---|---|

STATE OF TEXAS
JASON T. DIAMOND
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Jason T. Diamond
2-7-24

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

# BRIGGS RANCH NORTH SEWER UPSIZING

BEXAR COUNTY, TEXAS

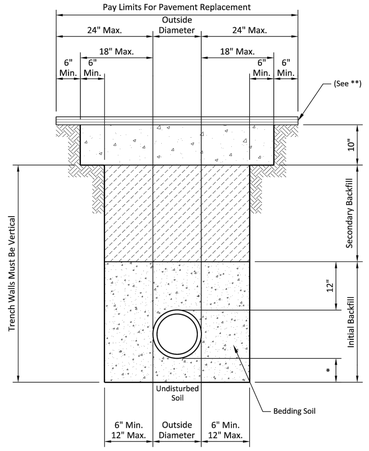
SANITARY SEWER LINE PLAN AND PROFILE
STA. 10+00 TO STA. 19+12.61

PLAT NO.
JOB NO. 12719–07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C3.01

Date: February 8, 2024, 11:12 AM — User ID: amohammed
File: P:\127\19\07\Design\Civil\SSPP–127107.dwg



100% SUBMITTAL



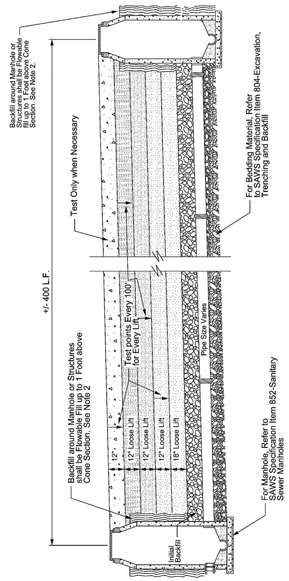

The Existing Material at the Bearing Level shall be Removed and Replaced to a Minimum Depth of 6-Inches or ⅛ of the Outside Diameter of the Pipe, whichever is greater, with Bedding Material.

In Areas of over Excavation, Encasement shall extend from Trench Wall. Pay Limits shall not Exceed 12" Max. as shown on Detail. Additional Encasement shall be incidental.

* Sewer Gravel 6" Min. or ¼ O.D. of the Pipe, whichever is greater.
** Minimum 2" HMAC Type "D" for Trench Repair in Local/Residential Streets.
** Minimum 3" HMAC Type "C" for Trench Repair in Collector/Arterial Streets.

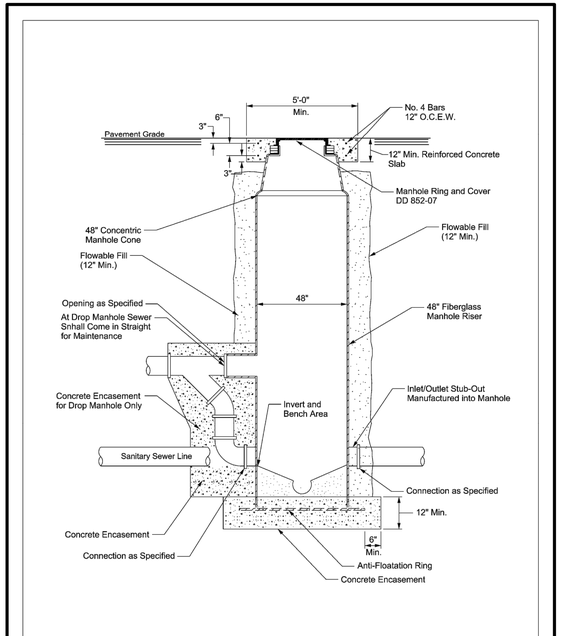
- Hot Mix Asphalt Concrete (HMAC)
- Asphalt Treated Base (A.T.B.)

| PROPERTY OF | | APPROVED | REVISED |
|---|---|---|---|
| SAN ANTONIO WATER SYSTEM<br>SAN ANTONIO, TEXAS | SANITARY SEWER PIPE LAID IN TRENCH | MARCH 2008 | AUG 2019 |
| | | DD-804-01 | SHEET 1 OF 1 |

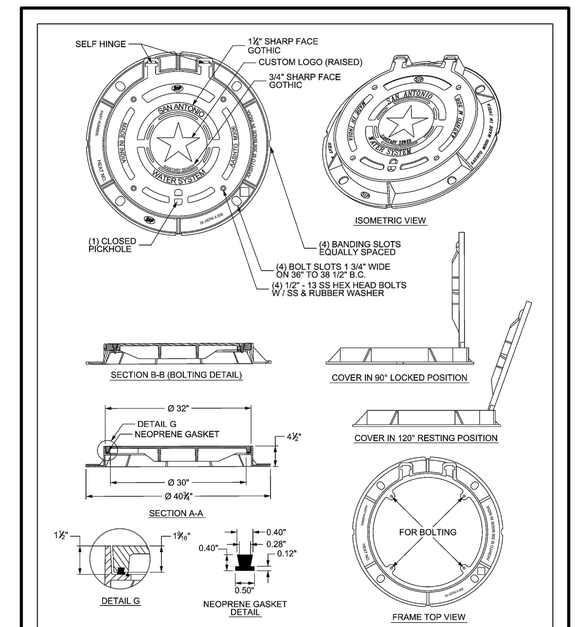



NOTES:
1. The Compaction Report will indicate the Station and the Depth of each Test Point.
2. When Contractor opts to backfill, all work will be subject to sections 804.3 and 804.4 of the specifications.
3. Insure Compaction Probe Penetrates to same Depth as Lift.

| PROPERTY OF | | APPROVED | REVISED |
|---|---|---|---|
| SAN ANTONIO WATER SYSTEM<br>SAN ANTONIO, TEXAS | TRENCH COMPACTION DETAIL | MARCH 2018 | AUG 2019 |
| | | DD 804-02 | SHEET 1 OF 1 |

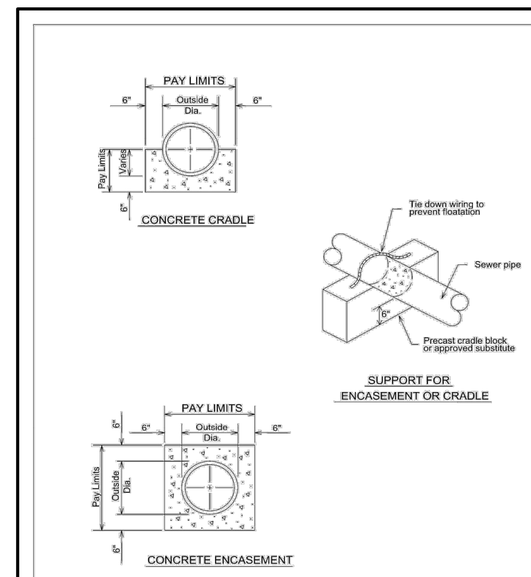



| PROPERTY OF | | APPROVED | REVISED |
|---|---|---|---|
| SAN ANTONIO WATER SYSTEM<br>SAN ANTONIO, TEXAS | TYPICAL FIBERGLASS MANHOLE DETAIL | AUG 2019 | |
| | | DD-852-12 | SHEET 1 OF 1 |



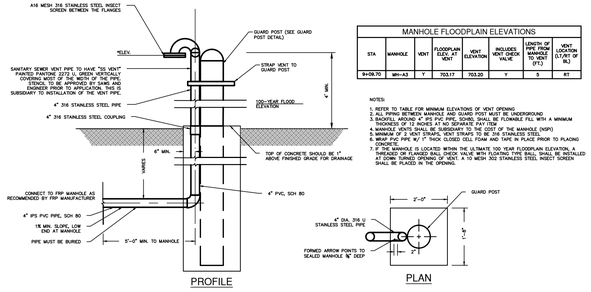

SIP Industries

| PROPERTY OF | | APPROVED | REVISED |
|---|---|---|---|
| SAN ANTONIO WATER SYSTEM<br>SAN ANTONIO, TEXAS | 30" MANHOLE RING AND COVER DETAIL | | AUG 2019 |
| | | DD 852-07 | SHEET 1 OF 5 |




Notes:
1) All concrete encasement shall be poured at a plane 6" above the pipe between excavated trench walls.
2) All sewer pipe with less than 3' of cover to subgrade shall be concrete encased.
3) All Force mains shall be provided with thrust blocks, where changes in direction occur, at Tees, Bends, Crosses, changes in size, stops, or as directed by SAWS.

| PROPERTY OF | | APPROVED | REVISED |
|---|---|---|---|
| SAN ANTONIO WATER SYSTEM<br>SAN ANTONIO, TEXAS | TYPICAL CONCRETE ENCASEMENT DETAILS | March 2008 | AUG 2019 |
| | | DD-858-01 | SHEET 1 OF 1 |




| MANHOLE FLOODPLAIN ELEVATIONS | | | | | | | |
|---|---|---|---|---|---|---|---|
| STA | MANHOLE | VENT | FLOODPLAIN ELEV. AT VENT | VENT ELEVATION | INCLUDES VENT CHECK VALVE | LENGTH OF PIPE FROM MANHOLE TO VENT (FT.) | VENT LOCATION (LT/RT OF BL) |
| 9+09.70 | MH-A3 | Y | 703.17 | 703.20 | Y | 3 | RT |

NOTES:
1. REFER TO TABLE FOR MINIMUM ELEVATIONS OF VENT OPENING
2. ALL PIPING BETWEEN MANHOLE AND GUARD POST MUST BE UNDERGROUND
3. BACKFILL AROUND 4" IPS PVC PIPE, SCH80, SHALL BE FLOWABLE FILL WITH A MINIMUM THICKNESS OF 12 INCHES AT NO ADDITIONAL PAY ITEM
4. VENT OPENING SHALL BE 4' MIN. ABOVE TOP OF THE MANHOLE DISPO
5. MINIMUM OF 2 VENT STRAPS, VENT STRAPS TO BE 316 STAINLESS STEEL
6. WRAP PVC PIPE W/ 1" THICK CLOSED CELL FOAM AND TAPE IN PLACE PRIOR TO PLACING CONCRETE
7. IF THE MANHOLE IS LOCATED WITHIN THE ULTIMATE 100 YEAR FLOODPLAIN ELEVATION, A THREADED OR FLANGED BALL CHECK VALVE WITH FLOATING TYPE BALL SHALL BE INSTALLED AT DOWN TURNED OPENING OF VENT. A 10 MESH 302 STAINLESS STEEL INSECT SCREEN SHALL BE PLACED IN THE OPENING.

C4.00 A VENTED MANHOLE DETAIL
N.T.S.

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

| NO. | REVISION | DATE |
|---|---|---|
| | | |

STATE OF TEXAS
JASON T. DIAMOND
96532
LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
2-7-24

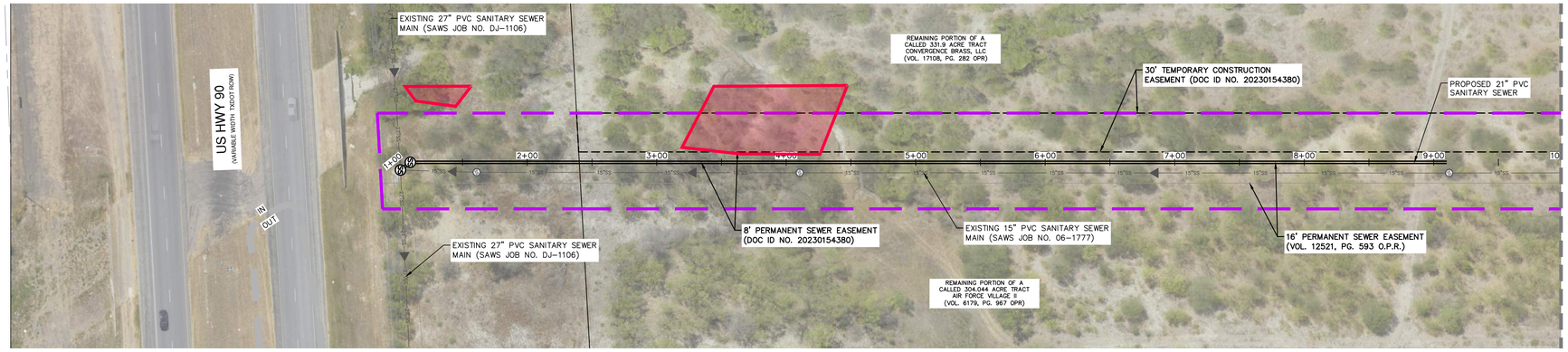
# BRIGGS RANCH NORTH SEWER UPSIZING
BEXAR COUNTY, TEXAS

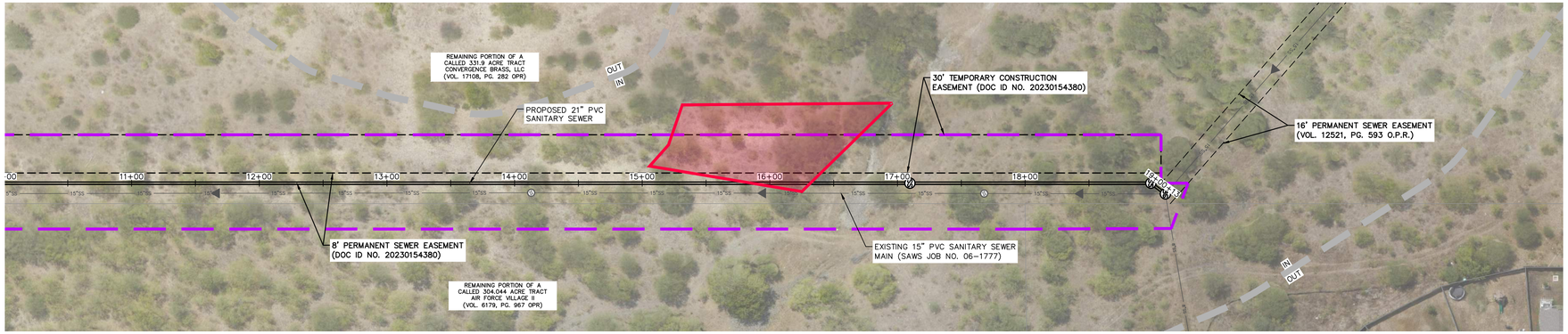
SANITARY SEWER DETAILS

PLAT NO.
JOB NO. 12719-07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C4.00

100% SUBMITTAL

Date: February 8, 2024, 11:12 AM – User ID: amohammed
File: P:\127\19\07\Design\Civil\SSD1-127907.dwg




MATCHLINE STA 10+00
SEE THIS SHEET

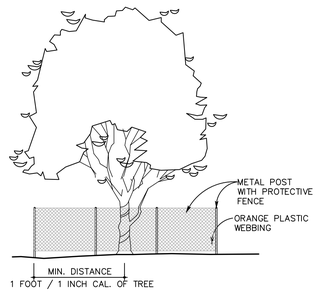
SCALE: 1"= 50'
0' 50' 100' 150'

LEGEND

- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- PERMANENT SEWER EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PARCEL BOUNDARY
- 100 YR FLOODPLAIN LIMITS
- 30' WIDE FLOODPLAIN BUFFER
- PROJECT LIMITS
- CANOPY TO BE REMOVED INSIDE FLOODPLAIN
- CANOPY TO BE PRESERVED INSIDE FLOODPLAIN
- CANOPY TO BE REMOVED OUTSIDE FLOODPLAIN
- CANOPY TO BE PRESERVED OUTSIDE FLOODPLAIN
- CANOPY TO BE REMOVED INSIDE 30' WIDE BUFFER
- CANOPY TO BE PRESERVED INSIDE 30' WIDE BUFFER

## TREE PRESERVATION GENERAL NOTES

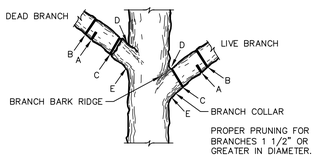
1. ALL TREES SHALL REMAIN UNLESS NOTED ON THE CITY OF SAN ANTONIO APPROVED PLANS.
2. NO UTILITY EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
3. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
4. EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.
5. NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS ONE FOOT RADIUS PER DIAMETER INCH OF THE TRUNK OF THE TREE. A TEN INCH TREE SHALL REQUIRE A TEN FOOT ROOT PROTECTION ZONE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. ALL WOUNDS TO OAK TREES SHALL BE PAINTED WITHIN 20 MINUTES TO PREVENT THE SPREAD OF OAK WILT.
6. THE CITY ARBORIST, 207-0278, SHALL APPROVE ANY TREE REMOVED.
7. TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES MAY BE NEATLY TRIMMED BY THE CONTRACTOR ONLY AFTER APPROVAL FROM THE CITY INSPECTOR.
8. TREES THAT ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
9. SAPLINGS, SHRUBS OR BUSHES TO BE REMOVED FROM THE PROTECTED ROOT ZONE AREA OF PROTECTED TREES SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR.
10. ALL DEBRIS GENERATED BY THE PRUNING OR TRIMMING OF THE TREES AND/OR BUSHES SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY.
11. TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE WATERING THE ROOT PROTECTION ZONE AND/OR WASHING FOLIAGE.
12. NO WIRES, NAILS OR OTHER MATERIALS MAY BE ATTACHED TO PROTECTED TREES.
13. PRIOR TO START OF WORK, CALL 207-1111 TO SCHEDULE A PRE-CONSTRUCTION & FENCING INSPECTION (PER SECTION 35-477 OF THE UDC, SUBSECTION TREE PERMITS (5)(C)).
14. FAILURE TO SCHEDULE A FENCING INSPECTION PRIOR TO START OF WORK MAY RESULT IN A STOP WORK ORDER OR A PENALTY OF $2,000 OR BOTH (PER SECTION 35-523 OF THE UDC, SUBSECTION (K)(2), THE BARRIER SHALL BE IN PLACE BEFORE ANY SITE WORK IS INITIATED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS).
15. TREE PLANTING AND MAINTENANCE: ALL PRESERVED AND PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATING, FERTILIZING, PRUNING, AND OTHER MAINTENANCE AS NEEDED. TREES THAT DIE WITHIN TWELVE MONTHS SHALL BE REPLACED WITH A TREE OF COMPARABLE SIZE AND SPECIES. REGUARDING REPLACEMENT OF PRESERVED TREES, SIGNIFICANT TREES SHALL BE REPLACED WITH A 1:1 RATIO (OR INCH-FOR-INCH) AND HERITAGE TREES SHALL BE REPLACED AT A 3:1 RATIO (OR THREE-TO-ONE INCH).




## TREE PROTECTION DETAIL
## EXISTING TREES
N.T.S.

## TREE PRESERVATION NOTES

1. ALL TREES TO REMAIN ON SITE REQUIRE PROTECTIVE FENCING, PRUNING, WATERING, AND FERTILIZATION AS DIRECTED BY A QUALIFIED ARBORIST.
2. PROTECTIVE FENCING CONSISTS OF 4'-0" HIGH FENCE.
3. FENCE TO EXTEND FROM TRUNK ONE FOOT FOR EVERY CALIPER INCH OF TREE (MINIMUM). THE OPTIMUM DISTANCE IS TO INSTALL FENCE DIRECTLY BENEATH DRIPLINE OF TREE TO REMAIN AS SHOWN.
4. DURING CONSTRUCTION, NO EXCESS SOIL, FILL MATERIAL, EQUIPMENT, LIQUIDS, OR CONSTRUCTION DEBRIS SHALL BE PLACED WITHIN THE PROTECTIVE FENCING, NOR SHALL ANY SOIL BE REMOVED FROM WITHIN THE FENCING.
5. ALL TREE PROTECTION MUST BE IN PLACE BEFORE CONSTRUCTION BEGINS.
6. INSTALL 4" MINIMUM DEPTH OF SHREDDED MULCH BENEATH THE DRIPLINE OF THE TREE.




NOTE: DO NOT CUT FROM D TO E

A. FIRST CUT – TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.

B. SECOND CUT – TO REDUCE THE WEIGHT OF BRANCH.

C. FINAL CUT – ALLOW FOR HEALING COLLAR BUT NO STUBS

D. BRANCH RIDGES – INDENT PROPERLY BRANCH RIDGES WHICH ARE SITE FOR DECAY.

FOR OAKS ONLY: PAINT ALL WOUNDS OR CUTS WITH PRUNING PAINT WITHIN 20 MIN. TO PREVENT THE SPREAD OF OAK WILT.

## TREE PRUNING DETAIL
N.T.S.

## TREE PLAN NOTE

PLEASE REFERENCE MASTER TREE PLAN TRE-APP-APP22-38802001 FOR TOTAL TREE CANOPY REMOVAL AND PRESERVATION PROPOSED WITH BRIGGS RANCH NORTH DEVELOPMENT. SEWER UPSIZING PROJECT WILL BE MITIGATED UNDER MASTER TREE PLAN TRE-APP-APP22-38802001.

UPPER MEDINA - SOUTH SEWERSHED - DOS RIOS/LEON CREEK
BRIGGS RANCH NORTH SEWER UPSIZING

Developer's Name: CHESMAR HOMES
Address: 211 N. LOOP 1604 E, SUITE 175
City: SAN ANTONIO State: TEXAS ZIP: 78232
Phone# (210) 957-3395 FAX# N/A
SAWS Block Map# 080560, 080562 Total Acreage 1.45
Total Linear Footage of Pipe 1,785 LF ~ 21" PVC SEWER Plat No. N/A
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-1643

| NO. | REVISION | DATE |
|---|---|---|

STATE OF TEXAS
JASON T. DIAMOND
96532
LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
2-7-24

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

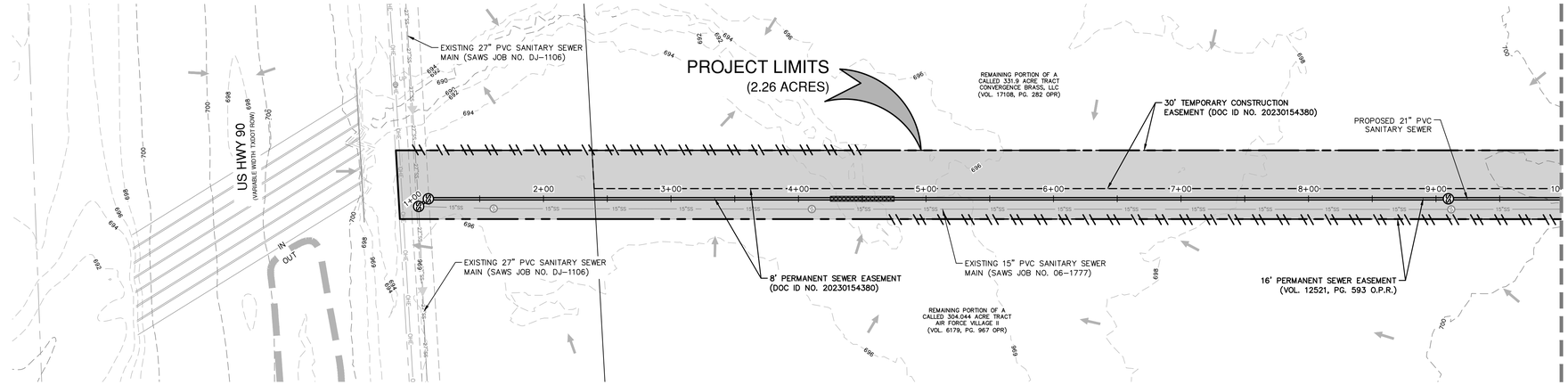
# BRIGGS RANCH NORTH SEWER UPSIZING
BEXAR COUNTY, TEXAS
TREE PRESERVATION PLAN AND DETAILS

PLAT NO.
JOB NO. 12719-07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C6.00

Date: February 8, 2024, 11:15 AM - User ID: amohammed
File: P:\127\19\07\Design\Civil\TRP-127190?.dwg



100% SUBMITTAL

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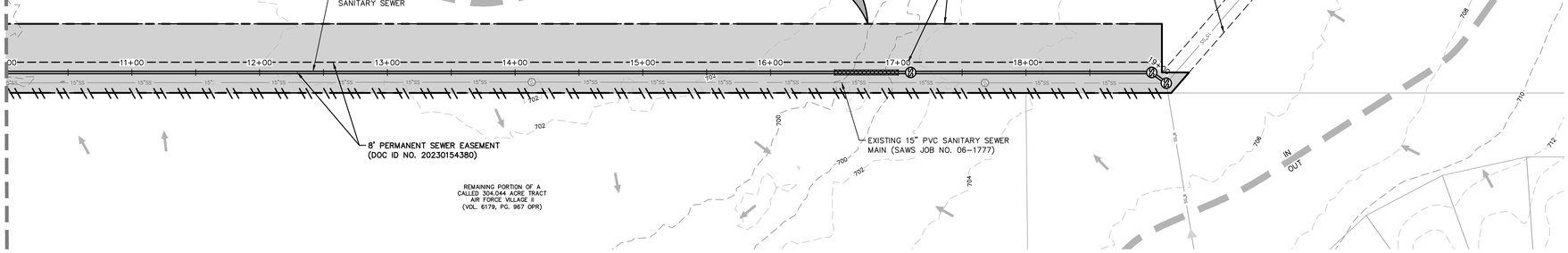


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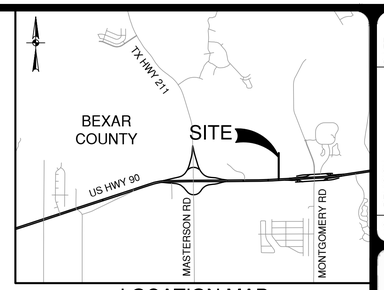
SEE THIS SHEET




LOCATION MAP
NOT-TO-SCALE

SCALE: 1"= 50'
0' 50' 100' 150'

## SWPPP LEGEND

- PROJECT LIMITS
- EXISTING CONTOUR (976)
- PROPOSED CONTOUR (976)
- FLOW ARROW (EXISTING)
- FLOW ARROW (PROPOSED)
- SILT FENCE
- ROCK BERM
- GRAVEL FILTER BAGS
- GRATE INLET PROTECTION
- SEDIMENT CONTROL ROLLS
- LIMITS OF DISTURBED AREA
- AQUATIC FEATURE
- STREAM CENTERLINE

## GENERAL NOTES

1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.

2. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASH-OUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD.

3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.

4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.

5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.

6. FOR A COMPLETE LISTING OF TEMPORARY STORM WATER POLLUTION PREVENTION CONTROLS REFER TO THE TPDES STORM WATER POLLUTION PREVENTION PLAN.

7. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL CLARITY.

8. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.

9. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.

10. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED IN ACCORDANCE WITH TPDES REQUIREMENTS.

11. UPON COMPLETION OF THE PROJECT, INCLUDING SITE STABILIZATION, AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES, PAYING SPECIAL ATTENTION TO ROCK BERMS IN DRAINAGE FEATURES.

12. WHERE VEGETATED FILTER STRIPS ARE INDICATED, CONTRACTOR SHALL VERIFY THAT SUFFICIENT VEGETATION EXISTS, OTHERWISE CONTRACTOR SHALL PLACE SILT FENCING IN LIEU OF VEGETATED FILTER STRIP.

13. SHADED AREA DENOTES LIMITS OF DISTURBED AREAS. OTHER AREAS WITHIN THE PROJECT LIMITS, WITH THE EXCEPTION OF A CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD, ARE NOT A PART OF THIS TPDES STORM WATER POLLUTION PREVENTION PLAN (SWP3) AND WILL NOT BE DISTURBED BY CIVIL CONSTRUCTION ACTIVITIES. HOUSE CONSTRUCTION ACTIVITIES WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN.

14. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL COORDINATE PLACEMENT OF TEMPORARY BEST MANAGEMENT PRACTICES WITHIN TXDOT RIGHT-OF-WAY WITH TXDOT.

15. CPS ENERGY WILL FUNCTION AS A SECONDARY OPERATOR ON THIS PROJECT AND WILL BE INSTALLING ELECTRIC UTILITIES FOR ON-SITE CONSTRUCTION AND OFF-SITE FEED TO THE PROJECT.

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE TPDES-STORM WATER POLLUTION PREVENTION PLAN (SWP3) REGULATIONS.

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF THE SWP3 ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

EXHIBIT 2

## SWP3 MODIFICATIONS

| DATE | SIGNATURE | DESCRIPTION |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| NO. | REVISION | DATE |
|---|---|---|
| | | |

STATE OF TEXAS
JASON T. DIAMOND
96532
LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
2-7-24

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

# BRIGGS RANCH NORTH SEWER UPSIZING

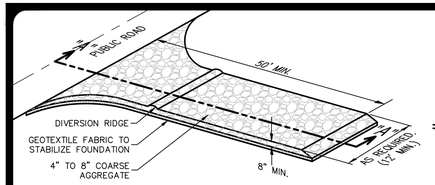
BEXAR COUNTY, TEXAS

STORMWATER POLLUTION PREVENTION PLAN

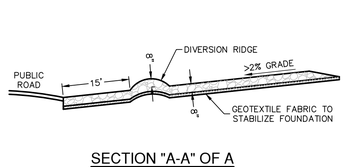
PLAT NO.
JOB NO. 12719-07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C7.00

100% SUBMITTAL

Date: February 8, 2024, 11:15 AM - User ID: amohammed
File: P:\127\19\07\Design\Civil\TPDES-1271907.dwg




SCHEMATIC OF TEMPORARY CONSTRUCTION ENTRANCE/EXIT




SECTION "A-A" OF A CONSTRUCTION ENTRANCE/EXIT

## MATERIALS

1. THE AGGREGATE SHOULD CONSIST OF 4–INCH TO 8–INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN.

2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 8–INCHES.

3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD², A MULLEN BURST RATING OF 140 LB/IN², AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.

4. IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM OF 4–INCH DIAMETER WASHED STONE OR COMMERCIAL ROCK SHOULD BE INCLUDED IN THE PLANS. DIVERT WASTEWATER TO A SEDIMENT TRAP OR BASIN.

## INSTALLATION

1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.

2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.

3. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG.

4. IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE, 6–INCHES TO 8–INCHES HIGH WITH 3:1 (H:V) SIDE SLOPES, ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD.

5. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.

6. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.

7. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.

8. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

## COMMON TROUBLE POINTS

1. INADEQUATE RUNOFF CONTROL–SEDIMENT WASHES ONTO PUBLIC ROAD.

2. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY CONDITION AS STONE IS PRESSED INTO SOIL.

3. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC–EXTEND PAD BEYOND THE MINIMUM 50–FOOT LENGTH AS NECESSARY.

4. PAD NOT FLARED SUFFICIENTLY AT ROAD SURFACE, RESULTS IN MUD BEING TRACKED ON TO ROAD AND POSSIBLE DAMAGE TO ROAD.

5. UNSTABLE FOUNDATION – USE GEOTEXTILE FABRIC UNDER PAD AND/OR IMPROVE FOUNDATION DRAINAGE.

## INSPECTION AND MAINTENANCE GUIDELINES

1. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.

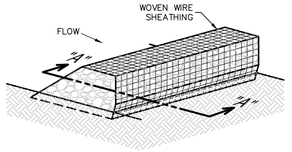
3. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.

4. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

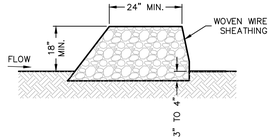
5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

## STABILIZED CONSTRUCTION ENTRANCE/EXIT DETAIL

NOT–TO–SCALE




ISOMETRIC PLAN VIEW




SECTION "A-A"

## ROCK BERMS

THE PURPOSE OF A ROCK BERM IS TO SERVE AS A CHECK DAM IN AREAS OF CONCENTRATED FLOW, TO INTERCEPT SEDIMENT–LADEN RUNOFF, DETAIN THE SEDIMENT AND RELEASE THE WATER IN SHEET FLOW. THE ROCK BERM SHOULD BE USED WHEN THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 5 ACRES. ROCK BERMS ARE USED IN AREAS WHERE THE VOLUME OF RUNOFF IS TOO GREAT FOR A SILT FENCE TO CONTAIN. THEY ARE LESS EFFECTIVE FOR SEDIMENT REMOVAL THAN SILT FENCES, PARTICULARLY FOR FINE PARTICLES, BUT ARE ABLE TO WITHSTAND HIGHER FLOWS THAN A SILT FENCE. AS SUCH, ROCK BERMS ARE OFTEN USED IN AREAS OF CHANNEL FLOWS (DITCHES, GULLIES, ETC.). ROCK BERMS ARE MOST EFFECTIVE AT REDUCING BED LOAD IN CHANNELS AND SHOULD NOT BE SUBSTITUTED FOR OTHER EROSION AND SEDIMENT CONTROL MEASURES FARTHER UP THE WATERSHED.

## INSPECTION AND MAINTENANCE GUIDELINES

1. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.

2. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER THAT WILL NOT CAUSE ANY ADDITIONAL SILTATION.

3. REPAIR ANY LOOSE WIRE SHEATHING.

4. THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.

5. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

6. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

## MATERIALS

1. THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOAT RINGS.

2. CLEAN, OPEN GRADED 3–INCH TO 5–INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF FLOW ARE EXPECTED, WHERE 5–INCH TO 8–INCH DIAMETER ROCKS MAY BE USED.

## INSTALLATION

1. LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE. THE SHEATHING SHOULD BE 20 GAUGE WOVEN WIRE MESH WITH 1 INCH OPENINGS.

2. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER.

3. PLACE THE ROCK ALONG THE SHEATHING AS SHOWN IN THE DIAGRAM TO A HEIGHT NOT LESS THAN 18".

4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON.

5. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE OR AS NEAR AS POSSIBLE.

6. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.

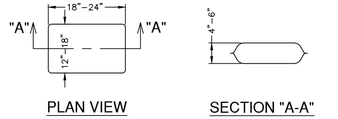
## COMMON TROUBLE POINTS

1. INSUFFICIENT BERM HEIGHT OR LENGTH (RUNOFF QUICKLY ESCAPES OVER THE TOP OR AROUND THE SIDES OF BERM).

2. BERM NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING AROUND ONE SIDE).

## ROCK BERM DETAIL

NOT–TO–SCALE




PLAN VIEW




SECTION "A-A"

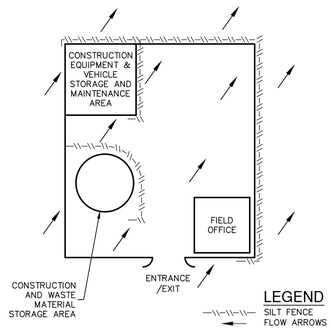
NOTES:
1. THE FILTER BAG MATERIAL SHALL BE MADE OF POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN FABRIC, MIN. UNIT WEIGHT OF 4 OUNCES/SY, HAVE A MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.

2. THE FILTER BAG SHALL BE FILLED WITH CLEAN, MEDIUM WASHED PEA GRAVEL TO COARSE GRAVEL (0.31 TO 0.75 INCH DIAMETER).

3. SAND SHALL NOT BE USED TO FILL THE FILTER BAGS.

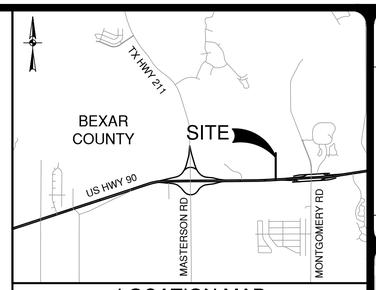
## GRAVEL FILTER BAG DETAIL

NOT–TO–SCALE




## CONSTRUCTION STAGING AREA

NOT–TO–SCALE




## LOCATION MAP

NOT–TO–SCALE

| NO. | REVISION | DATE |
|---|---|---|
| | | |

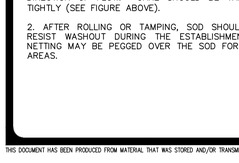
STATE OF TEXAS
JASON T. DIAMOND
96532
LICENSED
PROFESSIONAL ENGINEER
Jason T. Diamond
2-7-24


PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800


# BRIGGS RANCH NORTH SEWER UPSIZING

BEXAR COUNTY, TEXAS

STORMWATER POLLUTION PREVENTION PLAN DETAILS



LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING – ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.


## APPEARANCE OF GOOD SOD

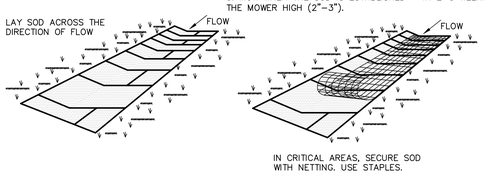
NOTES:
1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.

2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

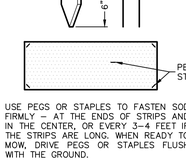
3. MOW WHEN THE SOD IS ESTABLISHED – IN 2–3 WEEKS. SET THE MOWER HIGH (2"–3").




## SOD INSTALLATION




IN CRITICAL AREAS, SECURE SOD WITH NETTING. USE STAPLES.




USE PEGS OR STAPLES TO FASTEN SOD FIRMLY – AT THE ENDS OF STRIPS AND IN THE CENTER, OR EVERY 3–4 FEET IF THE STRIPS ARE LONG. WHEN READY TO MOW, DRIVE PEGS OR STAPLES FLUSH WITH THE GROUND.

## MATERIALS

1. SOD SHOULD BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" INCH (± 1/4" INCH) AT THE TIME OF CUTTING. THIS THICKNESS SHOULD EXCLUDE SHOOT GROWTH AND THATCH.

2. PIECES OF SOD SHOULD BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH, WITH A MAXIMUM ALLOWABLE DEVIATION IN ANY DIMENSION OF 5%. TORN OR UNEVEN PADS SHOULD NOT BE ACCEPTABLE.

3. STANDARD SIZE SECTIONS OF SOD SHOULD BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED FROM A FIRM GRASP ON ONE END OF THE SECTION.

4. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.

## SITE PREPARATION

1. PRIOR TO SOIL PREPARATION, AREAS TO BE SODDED SHOULD BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLAN.

2. THE SURFACE SHOULD BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.

3. FERTILIZE ACCORDING TO SOIL TESTS. FERTILIZER NEEDS CAN BE DETERMINED BY A SOIL TESTING LABORATORY OR REGIONAL RECOMMENDATIONS CAN BE MADE BY COUNTY AGRICULTURAL EXTENSION AGENTS. FERTILIZER SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 3 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. ON SLOPING LAND, THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE CONTOUR.

## INSTALLATION IN CHANNELS

1. SOD STRIPS IN WATERWAYS SHOULD BE LAID PERPENDICULAR TO THE DIRECTION OF FLOW. CARE SHOULD BE TAKEN TO BUTT ENDS OF STRIPS TIGHTLY (SEE FIGURE ABOVE).

2. AFTER ROLLING OR TAMPING, SOD SHOULD BE PEGGED OR STAPLED TO RESIST WASHOUT DURING THE ESTABLISHMENT PERIOD. MESH OR OTHER NETTING MAY BE PEGGED OVER THE SOD FOR EXTRA PROTECTION IN CRITICAL AREAS.

## GENERAL INSTALLATION (VA. DEPT. OF CONSERVATION, 1992)

1. SOD SHOULD NOT BE CUT OR LAID IN EXCESSIVELY WET OR DRY WEATHER. SOD ALSO SHOULD NOT BE LAID ON SOIL SURFACES THAT ARE FROZEN.

2. DURING PERIODS OF HIGH TEMPERATURE, THE SOIL SHOULD BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD, TO COOL THE SOIL AND REDUCE ROOT BURNING AND DIEBACK.

3. THE FIRST ROW OF SOD SHOULD BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND BUTTING TIGHTLY AGAINST EACH OTHER. LATERAL JOINTS SHOULD BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. CARE SHOULD BE EXERCISED TO ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS (SEE FIGURE ABOVE).

4. ON SLOPES 3:1 OR GREATER, OR WHEREVER EROSION MAY BE A PROBLEM, SOD SHOULD BE LAID WITH STAGGERED JOINTS AND SECURED BY STAPLING OR OTHER APPROVED METHODS. SOD SHOULD BE INSTALLED WITH THE LENGTH PERPENDICULAR TO THE SLOPE (ON CONTOUR).

5. AS SODDING OF CLEARLY DEFINED AREAS IS COMPLETED, SOD SHOULD BE ROLLED OR TAMPED TO PROVIDE FIRM CONTACT BETWEEN ROOTS AND SOIL.

6. AFTER ROLLING, SOD SHOULD BE IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSIDE OF THE SOD PAD AND THE SOIL 4 INCHES BELOW THE SOD IS THOROUGHLY WET.

7. UNTIL SUCH TIME A GOOD ROOT SYSTEM BECOMES DEVELOPED, IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHOULD BE PERFORMED AS OFTEN AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST 4 INCHES.

8. THE FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED, USUALLY 2–3 WEEKS. NOT MORE THAN ONE THIRD OF THE GRASS LEAF SHOULD BE REMOVED AT ANY ONE CUTTING.

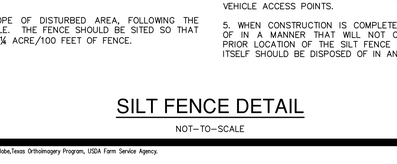
## INSPECTION AND MAINTENANCE GUIDELINES

1. SOD SHOULD BE INSPECTED WEEKLY AND AFTER EACH RAIN EVENT TO LOCATE AND REPAIR ANY DAMAGE.

2. DAMAGE FROM STORMS OR NORMAL CONSTRUCTION ACTIVITIES SUCH AS TIRE RUTS OR DISTURBANCE OF SWALE STABILIZATION SHOULD BE REPAIRED AS SOON AS PRACTICAL.

## SOD INSTALLATION DETAIL

NOT–TO–SCALE




ISOMETRIC PLAN VIEW

## SILT FENCE

A SILT FENCE IS A BARRIER CONSISTING OF GEOTEXTILE FABRIC SUPPORTED BY METAL POSTS TO PREVENT SOIL AND SEDIMENT LOSS FROM A SITE. WHEN PROPERLY USED, SILT FENCES CAN BE HIGHLY EFFECTIVE AT CONTROLLING SEDIMENT FROM DISTURBED AREAS. THEY CAUSE RUNOFF TO POND, ALLOWING HEAVIER SOLIDS TO SETTLE OUT. IF NOT PROPERLY INSTALLED, SILT FENCES ARE NOT LIKELY TO BE EFFECTIVE.

THE PURPOSE OF A SILT FENCE IS TO INTERCEPT AND DETAIN WATER–BORN SEDIMENT FROM UNPROTECTED AREAS OF A LIMITED EXTENT. SILT FENCE IS USED DURING THE PERIOD OF CONSTRUCTION NEAR THE PERIMETER OF A DISTURBED AREA TO INTERCEPT SEDIMENT WHILE ALLOWING WATER TO PERCOLATE THROUGH. THIS FENCE SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. SILT FENCE SHOULD NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY. IF CONCENTRATED FLOW OCCURS AFTER INSTALLATION, CORRECTIVE ACTION MUST BE TAKEN SUCH AS PLACING A ROCK BERM IN THE AREAS OF CONCENTRATED FLOW.

SILT FENCING WITHIN THE SITE MAY BE TEMPORARILY MOVED DURING THE DAY TO ALLOW CONSTRUCTION ACTIVITY PROVIDED IT IS REPLACED AND PROPERLY ANCHORED TO THE GROUND AT THE END OF THE DAY. SILT FENCES ON THE PERIMETER OF THE SITE OR AROUND DRAINAGE WAYS SHOULD NOT BE MOVED AT ANY TIME.

## MATERIALS

1. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN2, ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NUMBER 30.

2. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y–BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM WEIGHT 1.25 LB/FT, AND BRINDELL HARDNESS EXCEEDING 140.

3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

## INSTALLATION

1. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF 1–FOOT DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING SHOULD BE 6 FEET.

2. LAY OUT FENCING DOWN–SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO THAT THE MAXIMUM DRAINAGE AREA IS ¼ ACRE/100 FEET OF FENCE.

3. THE TOE OF THE SILT FENCE SHOULD BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN–SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 INCHES OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

4. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

5. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHOULD BE A 3–FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

6. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

## COMMON TROUBLE POINTS

1. FENCE NOT INSTALLED ALONG THE CONTOUR CAUSING WATER TO CONCENTRATE AND FLOW OVER THE FENCE.

2. FABRIC NOT SEATED SECURELY TO GROUND (RUNOFF PASSING UNDER FENCE).

3. FENCE NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING AROUND SIDES).

4. FENCE TREATING TOO LARGE AN AREA, OR EXCESSIVE CHANNEL FLOW (RUNOFF OVERTOPS OR COLLAPSES FENCE).

## INSPECTION AND MAINTENANCE GUIDELINES

1. INSPECT ALL FENCING WEEKLY, AND AFTER RAINFALL.

2. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.

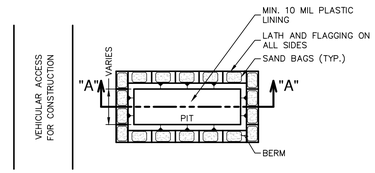
3. REPLACE TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION.

4. REPLACE OR REPAIR SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES. A TRIANGULAR FILTER DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS.

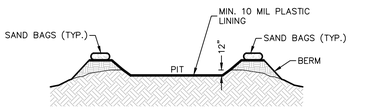
5. WHEN CONSTRUCTION IS COMPLETE, THE SEDIMENT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ADDITIONAL SILTATION AND THE PRIOR LOCATION OF THE SILT FENCE SHOULD BE REVEGETATED. THE FENCE ITSELF SHOULD BE DISPOSED OF IN AN APPROVED LANDFILL.

## SILT FENCE DETAIL

NOT–TO–SCALE




PLAN VIEW




SECTION "A-A"

## GENERAL NOTES

1. DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.

2. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.

3. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.

4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES OR WATER BODIES.

5. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE CONSTRUCTED WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

## MATERIALS

PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

## MAINTENANCE

1. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF.

2. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF.

3. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.

## CONCRETE TRUCK WASHOUT PIT DETAIL

NOT–TO–SCALE

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE TPDES–STORM WATER POLLUTION PREVENTION PLAN (SWP3) REGULATIONS.

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF THE SWP3 ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

EXHIBIT 3

PLAT NO.
JOB NO. 12719–07
DATE JANUARY 2024
DESIGNER CD
CHECKED MP DRAWN RJ
SHEET C7.01

Date: February 8, 2024, 11:15 AM – User ID: arnohammd
File: P:\12719\07\Design\Civil\TPDES–12719107.dwg



100% SUBMITTAL