CITY OF NEW BRAUNFELS
ELIZABETH AVE. STORM WATER TREATMENT
WATER QUALITY RETROFIT

NOTE:
1. ALL CONSTRUCTION ACTIVITIES SHALL MEET THE CITY OF NEW BRAUNFELS
   AND/OR TXDOT CONSTRUCTION STANDARDS.
2. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE REMAINS WITH THE
   ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, THE CITY
   OF NEW BRAUNFELS MUST RELY ON THE ADEQUACY OF THE WORK OF THE
   DESIGN ENGINEER.
3. PROJECT IS A TYPE 2 DEVELOPMENT.
4. IF CONSTRUCTION HAS NOT COMMENCED WITHIN ONE-YEAR OF CITY APPROVAL
   FOR CONSTRUCTION INSPECTION, THAT APPROVAL IS NO LONGER VALID.
5. THIS PROJECT IS FUNDED BY THE EDWARDS AQUIFER HABITAT CONSERVATION
   PROGRAM (EAHCP) AND THE CITY OF NEW BRAUNFELS.

*NOTE:
ALL INSPECTIONS ARE TO BE CALLED IN AT 830.221.4068,
OR FAXED IN AT 830.608.2117 OR EMAILED AT
INSPECTION@NBTEXAS.ORG

FLOODPLAIN NOTE:
THE PROPERTY IS LOCATED WITHIN ZONE "X".
NO PORTION OF THE PROJECT APPEAR TO BE LOCATED INSIDE OF THE
100-YEAR FLOODPLAIN AS SHOWN ON F.I.R.M. PANEL NO. 48091C0435F
OF COMAL COUNTY, TEXAS DATED SEPTEMBER 2, 2009.

EDWARDS AQUIFER JURISDICTIONAL BOUNDARY NOTE:
THE SITE IS LOCATED WITHIN THE EDWARDS AQUIFER TRANSITION
ZONE.

SCALE: 1" = 1,000'

SURVEY CONTROL:
BASE OF BEARING IS THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL
ZONE (4204), NORTH AMERICAN DATUM 1983 (NAD83), 2011 ADJUSTMENT
(EPOCH 2010) AND A VERTICAL DATUM OF NAVD88,
GEOID 12B. ALL COORDINATE VALUES AND DISTANCES SHOWN ARE GRID
VALUES.
UNITS: US SURVEY FEET.
THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE
COMMITMENT. EASEMENTS OR OTHER MATTERS OF RECORD MAY EXIST
WHERE NONE ARE SHOWN.

BENCHMARK #1
NORTHING = 13,808,469.36
EASTING = 2,244,842.40
ELEVATION = 631.19
BM = MAGNL
DESC = NEAR HISTORICAL SIGN IN FRONT OF WURSTFEST ADMISSION
NORTH ENTRANCE

BENCHMARK #2
NORTHING = 13,808,501.05
EASTING = 2,245,086.88
ELEVATION = 629.49
BM = MAGNL
DESC = EAST OF BENCHMARK #1, NEAR GATE OF ENCLOSED WURSTFEST
STORAGE AREA

BENCHMARK INFORMATION FROM "ELIZABETH AVENUE REALIGNMENT"
CONSTRUCTION DOCUMENTS.
TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES. WATER MAIN SHALL HAVE A MINIMUM OF 42 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT SECONDARY BACKFILL OF WASTEWATER LINES SHALL GENERALLY CONSIST OF MATERIALS REMOVED SAWCUT EXISTING STREET AND MATCH TO NEW CONSTRUCTION. ALL RESIDENTIAL WASTEWATER SERVICE LATERALS SHALL BE EXTENDED TO THE PROPERTY LINE AND YOU MUST CALL BEFORE 12:00 P.M., 24 TO 48 HOURS PRIOR TO YOUR...
1. Silt Fence Fabric to be laid in the ground and backfilled with compacted soil.

2. The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the flow of water.

3. Rock Berm shall be secured with a woven wire sheathing having maximum 1'' opening and minimum wire diameter of 20 gauge.

4. Use only open graded rock 4'' to 8'' diameter for stream flow conditions. Use open graded rock 3'' to 5'' diameter for other conditions.

5. The rock berm shall be secured with a woven wire sheathing having maximum 1'' opening and minimum wire diameter of 20 gauge.

6. The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the flow of water.

7. When the site is completely stabilized, the berm and accumulated silt shall be removed when accumulation reaches 6''.

8. The silt fence shall be securely fastened to each steel support post or to woven wire, which is in turn attached to the steel fence post.

9. Notes:

   a. All spoils are to be hauled off from the site immediately upon excavation.

   b. Per TPDES requirements, disturbed areas on which construction activities have ceased (temporarily or permanently) shall be stabilized within 14 days unless noted otherwise.

   c. Existing tree to be removed/relocated.

   d. Existing tree to remain.

   e. Existing demo removed/relocated.

   f. Water quality improvement systems are shown for the water quality improvements.

   g. Existing tree to be kept off the site immediately upon excavation.

   h. Existing tree to be kept off the site immediately upon excavation.
SOLI-MEDIA BED & GEOTEXTILE FABRIC

- Tested and found to meet ASTM D-2240 (MODIFIED) for filtration rate, unit weight, tensile strength, and puncture strength.
- Made from high-quality materials to ensure durability and longevity.
- Meets or exceeds TXDOT specifications for filter fabric.

MAINTENANCE REQUIREMENTS:

- Sediment removal should be performed at least every 2 years or when sediment depth reaches 3 inches.
- Drain Time.
- To avoid erosion and ensure proper drainage.
- Vegetation, erosion repair at inflow points, media replenishment, unclogging the underdrain, and repairing overflow structures.

Specific maintenance requirements include:

- Required as minimally as possible. Fertilizer should not be required because runoff will typically contain sufficient nutrient loads.
- Use non-chemical methods for maintaining health of vegetation.
- Pesticides, herbicides, or fertilizers should only be used as a last option, and then

PLANS FOR FLOWLINE @ 1.0% MIN.

- LATERAL @ 1.0% MIN.
- 6" PVC POND DRAIN
- 6" CLEANOUT
- FIRST LAYER: ASTMC-144 MASONRY SAND (SMALLER SIZE IS NOT ACCEPTABLE)
- SECOND LAYER: #4 BARS ON 6" (MAX.)
- GREEN QUALITY COMPOST.
- * PERCENT ORGANIC MATTER (BY WEIGHT) OF 0-4%. ORGANIC MATTER SHOULD NOT INCLUDE
- * <5% CLAY BY VOLUME

- CLEANOUT 'A'
- CLEANOUT 'B'
- BIOFILTRATION SOIL MEDIUM BED SECTION (WITHOUT IMPERMEABLE LINER)
- TRENCH BACKFILL
- HEADWALL FOR 6" P.V.C. FROM BIOFILTRATION POND
- RETAINING WALL SECTION (2.0' MAX. HEIGHT)
626
10.42'
12.73'
39.43'
11.21'
5.23'
100
102
108
114
120
126
132
138
144
150
156
162
168
174
180
STA. 1+16.15
ELEV= 625.00
STA. 1+60.99
ELEV= 625.00
STA. 1+16.14
ELEV= 627.00
STA. 1+61.00
ELEV= 627.00

CONTRACTOR NOTES:
EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.
NOTE:

THE WATER QUALITY IMPROVEMENTS WILL BE CONSTRUCTED ALONG SIDE THE ROADWAY IMPROVEMENTS (BY OTHERS).

PRE-PROJECT CONDITIONS SHOWN FOR THE WATER QUALITY IMPROVEMENTS REPRESENT, AND INCLUDE, CHANGES TO EXISTING SITE ASSOCIATED WITH ROADWAY IMPROVEMENTS.

FOR EXISTING CONDITIONS DRAINAGE CALCULATIONS AND SUMMARY, REFER TO STORMWATER REPORT ASSOCIATED WITH ELIZABETH AVENUE REALIGNMENT BY OTHERS.
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EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

SHRUB PLANTING DETAIL

<table>
<thead>
<tr>
<th>TYPE</th>
<th>SIZE</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lindheimer Muhly</td>
<td>5-GAL</td>
<td>10</td>
</tr>
<tr>
<td>Gulf Muhly</td>
<td>5-GAL</td>
<td>16</td>
</tr>
<tr>
<td>Turks Cap</td>
<td>5-GAL</td>
<td>19</td>
</tr>
<tr>
<td>Flame Acanthus</td>
<td>5-GAL</td>
<td>14</td>
</tr>
<tr>
<td>Rock Rose</td>
<td>5-GAL</td>
<td>13</td>
</tr>
</tbody>
</table>
DIMENSIONS SHOWN ON THIS DETAIL SHEET SHALL BE ADJUSTED TO SUIT WITH SITE PLAN REQUIREMENTS.
OVERALL STRUCTURE WIDTH WILL BE INCREASED FROM 10' 3" TO 13' 6".
BRIDGE PLATE WILL BE WIDENED TO MEASURE 9' 3".
MAINTAIN DIMENSIONS FOR GUTTER DEPRESSION, CURB, AND RISER. CONTRACTOR SHALL ADJUST QUANTITIES ACCORDINGLY.
GUTTER ELEVATION WILL NOT BE DEPRESSED.
INVERT TO SIDEWALK BRIDGE WILL MATCH GUTTER FLOWLINE ELEVATION.