

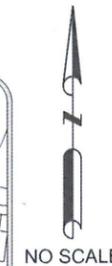
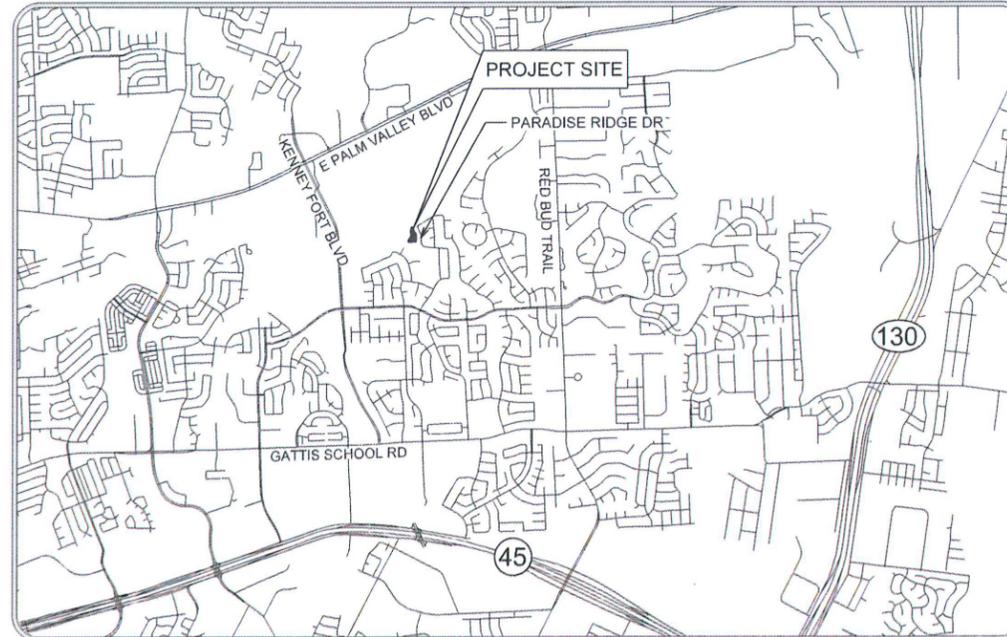
# CITY OF ROUND ROCK CHANNEL EROSION AT SONOMA

NOVEMBER 3, 2015

## INDEX OF SHEETS

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8. DETAILS 1 OF 3
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10. DETAILS 3 OF 3

VICINITY MAP



PREPARED FOR:



PREPARED BY:



1120 S. Capital of Texas Highway  
CityView 2, Suite 100  
Austin, Texas 78746  
P: 512-338-1704 F: 512-338-1784  
TBPE Firm #6535  
www.kfriese.com

HYDRAULIC INFORMATION FROM PRELIMINARY ENGINEERING REPORT  
PERFORMED BY K FRIESE & ASSOCIATES OCTOBER 26, 2015.

ACCEPTED FOR CONSTRUCTION:

*Joseph F. Goessling, P.E.*  
\_\_\_\_\_  
JOSEPH F. GOESSLING, P.E.  
CITY OF ROUND ROCK, TEXAS

*4 NOV 15*  
\_\_\_\_\_  
DATE

*Joseph F. Goessling*  
\_\_\_\_\_  
JOSEPH F. GOESSLING, P.E.  
PROJECT ENGINEER

11/3/2015  
\_\_\_\_\_  
DATE



HORIZONTAL DATUM:  
ALL BEARINGS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM,  
CENTRAL ZONE, NAD 83. ALL DISTANCES AND COORDINATES SHOWN ON THE  
PLANS ARE IN GRID.

THIS PLAN SET IS FULL SIZE AT 22" X 34".

**GENERAL NOTES**

- All construction shall be in accordance with the City of Round Rock Standard Specifications Manual and Appendix A of the Project Manual.
- Any existing utilities, pavement, curbs, sidewalks, structures, trees, etc., not planned for destruction or removal that are damaged or removed shall be repaired or replaced at Contractor's expense.
- The Contractor shall verify all depths and locations of existing utilities prior to any construction. Any discrepancies with the construction plans found in the field shall be brought immediately to the attention of the Engineer who shall be responsible for revising the plans as appropriate.
- Manhole frames, covers, valves, cleanouts, etc. shall be raised to finished grade prior to final paving construction.
- The Contractor shall give the City of Round Rock 48 hour notice before beginning each phase of construction. Contact the assigned Project Manager.
- All areas disturbed or exposed during construction shall be revegetated in accordance with the plans and specifications. Where not specifically identified, revegetation of all disturbed or exposed areas shall consist of sodding or seeding, at the Contractor's option.
- Prior to any construction, a preconstruction conference shall be held between the City of Round Rock, the Engineer, the Contractor, other utility companies, any affected parties and any other entity the City or Engineer may require.
- The Contractor shall keep accurate records of all construction that deviates from the plans. The Contractor shall furnish the City of Round Rock accurate "As-Built" notated drawings following completion of all construction. These "As-Built" drawings shall meet with the satisfaction of the City prior to final acceptance.
- When construction is being carried out within easements, the Contractor shall confine his work to within the permanent and any temporary easements. Prior to final acceptance, the Contractor shall be responsible for removing all trash and debris within the permanent and temporary easements. Clean-up shall be to the satisfaction of the City.
- Prior to any construction, the Contractor shall apply for and secure all proper permits from the appropriate authorities.
- Available benchmarks (NAVD '88 Datum) that may be utilized for the construction of this project are shown on sheets and described as follows:

BENCHMARK #1  
(SET) CUT "X" ON TOP OF CONCRETE CURB  
ON THE WEST SIDE OF PARADISE RIDGE DRIVE  
N 10161460.2054  
E 3148326.0892  
ELEV. 660.75

**TRENCH SAFETY NOTES:**

- In accordance with the Laws of the State of Texas and the U. S. Occupational Safety and Health Administration regulations, all trenches over 5 feet in depth in either hard and compact or soft and unstable soil shall be sloped, shored, sheeted, braced or otherwise supported. Furthermore, all trenches less than 5 feet in depth shall also be effectively protected when hazardous ground movement may be expected. Trench safety systems to be utilized for this project.
- In accordance with the U. S. Occupational Safety and Health Administration regulations, when persons are in trenches 4 feet deep or more, adequate means of exit, such as a ladder or steps, must be provided and located so as to require no more than 25 feet of lateral travel.
- If trench safety system details were not provided in the plans because trenches were anticipated to be less than 5 feet in depth and during construction it is found that trenches are in fact 5 feet or more in depth or trenches less than 5 feet in depth are in an area where hazardous ground movement is expected, all construction shall cease, the trenched area shall be barricaded and the City notified immediately. Construction shall not resume until appropriate trench safety system details, as designed by a professional engineer, are retained.

**STREET DRAINAGE NOTES**

- All testing shall be done by an independent laboratory at the City's expense unless specified otherwise. Any retesting shall be paid for by the Contractor. A City Inspector shall be present during all tests. Testing shall be coordinated with the City Inspector and he shall be given a minimum of 24 hour notice prior to any testing.
- Backfill behind the curb shall be compacted to obtain a minimum of 95% maximum density to within 3" of top of curb. Material used shall be primarily granular with no rocks larger than 6" in the greatest dimension. The remaining 3" shall be clean topsoil free from all clods and suitable for sustaining plant life.
- Depth of cover for all crossings under pavement including gas, electric, telephone, cable tv, water services, etc., shall be a minimum of 30" below subgrade unless otherwise accepted by the City.
- Street rights-of-way shall be graded at a slope of 1/4" per foot toward the curb unless otherwise indicated. However, in no case shall the width of right-of-way at 1/4" per foot slope be less than 10 feet unless a specific request for an alternate grading scheme is made to and accepted by the City.
- Traffic control in accordance with a designated Traffic Control Plan shall be placed and maintained as necessary during construction for workers and public safety.
- All R.C.P. shall be minimum class III.

**WATER AND WASTEWATER**

- Pipe material for water mains shall be PVC (AWWA C-900, min. class 200), or Ductile Iron (AWWA C-100, min. class 200) as shown in the plans. Water services (2" or less) shall be polyethylene tubing (black, 200 psi, DR 9).
- Pipe material for pressure wastewater mains shall be PVC (AWWA C-900, min. class 150), or Ductile Iron (AWWA C-100, min. class 200) as shown in the plans. Pipe material for gravity wastewater mains shall be PVC (ASTM D2241 or D3034, max. DR-26) or Ductile Iron (AWWA C-100, min. class 200) as shown in the plans.
- Unless otherwise directed by the City, depth of cover for all lines out of the pavement shall be 42" minimum and depth of cover for all lines under pavement shall be a minimum of 30" below subgrade.
- All fire hydrant leads shall be ductile iron pipe (AWWA C-100, min. class 200).
- All iron pipe and fittings shall be wrapped with minimum 8-mil polyethylene and sealed with duct tape or equal accepted by the City.
- The Contractor shall contact the City of Round Rock Inspector to coordinate utility tie-ins and notify him at least 48 hours prior to connecting to existing lines.
- All manholes shall be concrete with cast iron ring and cover. All manholes located outside of the pavement shall have bolted covers. Tapping of fiberglass manholes shall not be allowed.
- The Contractor must obtain a bulk water permit or purchase and install a water meter for all water used during construction. A copy of this permit must be carried at all times by all who use water.
- Line flushing or any activity using a large quantity of water must be scheduled with the City of Round Rock Inspector.
- The Contractor, at his expense, shall perform sterilization of all potable water lines constructed and shall provide all equipment (including test gauges), supplies (including concentrated chlorine disinfecting material), and necessary labor required for the sterilization procedure. The sterilization procedure shall be monitored by City of Round Rock personnel. Water samples will be collected by the City of Round Rock to verify each treated line has attained an initial chlorine concentration of 50 ppm. Where means of flushing is necessary, the Contractor, at his expense, shall provide flushing devices and remove said devices prior to final acceptance by the City of Round Rock.
- Sampling taps shall be brought up to 3 feet above grade and shall be easily accessible for City personnel. At the Contractor's request, and in his presence, samples for bacteriological testing will be collected by the City of Round Rock not less than 24 hours after the treated line has been flushed of the concentrated chlorine solution and charged with water approved by the City.
- The Contractor, at his expense, shall perform quality testing for all wastewater pipe installed and pressure pipe hydrostatic testing of all water lines constructed and shall provide all equipment (including pumps and gauges), supplies and labor necessary to perform the tests. Quality and pressure testing shall be monitored by City of Round Rock personnel.
- The Contractor shall coordinate testing with the City of Round Rock Inspector and provide no less than 24 hour notice prior to performing sterilization, quality testing or pressure testing.
- The Contractor shall not open or close any valves unless authorized by the City of Round Rock.
- All valve boxes and covers shall be cast iron.
- All water service, wastewater service and valve locations shall be appropriately marked as follows:

Water service = "W" on top of curb  
Wastewater service = "S" on top of curb  
Valve = "V" on face of curb

Tools for marking the curb shall be provided by the Contractor. Other appropriate means of marking service and valve locations shall be provided in areas without curbs. Such means of marking shall be as specified by the Engineer and accepted by the City of Round Rock.

- Contact the City of Round Rock for assistance in obtaining existing water and wastewater locations.
  - The City of Round Rock Fire Department shall be notified 48 hours prior to testing of any building sprinkler piping in order that the Fire Department may monitor such testing.
  - Sand, as described in Specification item 510 pipe, shall not be used as bedding for water and wastewater lines. Acceptable bedding materials are pipe bedding stone, pea gravel and in lieu of sand, a naturally occurring or manufactured stone material conforming to ASTM C33 for stone quality and meeting the following gradation specification.
- | SIEVE SIZE | PERCENT RETAINED BY WEIGHT |
|------------|----------------------------|
| 1/2"       | 0                          |
| 3/8"       | 0-2                        |
| #4         | 40-85                      |
| #10        | 95-100                     |
- The Contractor is hereby notified that connecting to, shutting down, or terminating existing utility lines, may have to occur at off-peak hours. Such hours are usually outside normal working hours and possibly between 12 a.m. and 6 a.m.
  - All wastewater construction shall be in accordance with the Texas Commission on Environmental Quality (TCEQ) Regulations, 30 TAC Chapter 213 and 317, as applicable. Whenever TCEQ and City of Round Rock Specifications conflict, the more stringent shall apply.

**TRAFFIC MARKING NOTES**

- Any methods, street markings and signage necessary for warning motorists, warning pedestrians or diverting traffic during construction shall conform to the Texas Manual of Uniform Traffic Control Devices for Streets and Highways, latest edition.
- All pavement markings, markers, paint, traffic buttons, traffic controls and signs shall be installed in accordance with the Texas Department of Transportation Standard Specifications for Construction of Highways, Streets and Bridges and, the Texas Manual of Uniform Traffic Control Devices for Streets and Highways, latest editions.

**EROSION AND SEDIMENTATION CONTROL**

- Erosion control measures, site work and restoration work shall be in accordance with the City of Round Rock Erosion and Sedimentation Control Ordinance.
- All disturbed unpaved areas and slopes shall be sodded or seeded with approved grass, grass mixtures or ground cover suitable to the area and season in which they are applied and in accordance with the plans.
- Silt fences, rock berms, sedimentation basins and similarly recognized techniques and materials shall be employed during construction to prevent point source sedimentation loading of downstream facilities. Such installation shall be regularly inspected by the City of Round Rock for effectiveness. Additional measures may be required if, in the opinion of the City, they are warranted.
- All temporary erosion control measures shall not be removed until final inspection and approval of the project by the City. It shall be the responsibility of the Contractor to maintain all temporary erosion control structures and to remove each structure as approved by the City.
- All mud, dirt, rocks, debris, etc., spilled, tracked or otherwise deposited on existing paved streets, drives and areas used by the public shall be cleaned up immediately.

TREE LIST	
TAG NO.	DESCRIPTION
1001	11" ELM
1002	11" ELM
1003	12" LIVE OAK
1004	12" LIVE OAK
1005	10" LIVE OAK
1006	27" LIVE OAK
1007	11" LIVE OAK
1008	14" ELM
1009	10" ELM
1010	8" LIVE OAK
1011	8" ELM
1012	12" ELM
1013	9" HACKBERRY
1014	10" ELM
1015	14" ELM
1016	11" ELM
1017	13" ELM
1018	22"MT HACKBERRY 18",8"
1019	8" HACKBERRY
1020	14" HACKBERRY
1021	9" ELM
1022	17" ELM
1023	14" ELM
1024	11" ELM
1025	15"MT TREE 8",7",6"
1026	13" ELM
1027	13" ELM
1028	21" ELM
1029	11" ELM
1030	8" ELM
1031	22" ELM



K FRIESE & ASSOCIATES, INC.  
1120 S. CAPITAL OF TEXAS HWY, II-100, AUSTIN, TX 78746

CITY OF ROUND ROCK  
CHANNEL EROSION AT SONOMA

GENERAL NOTES

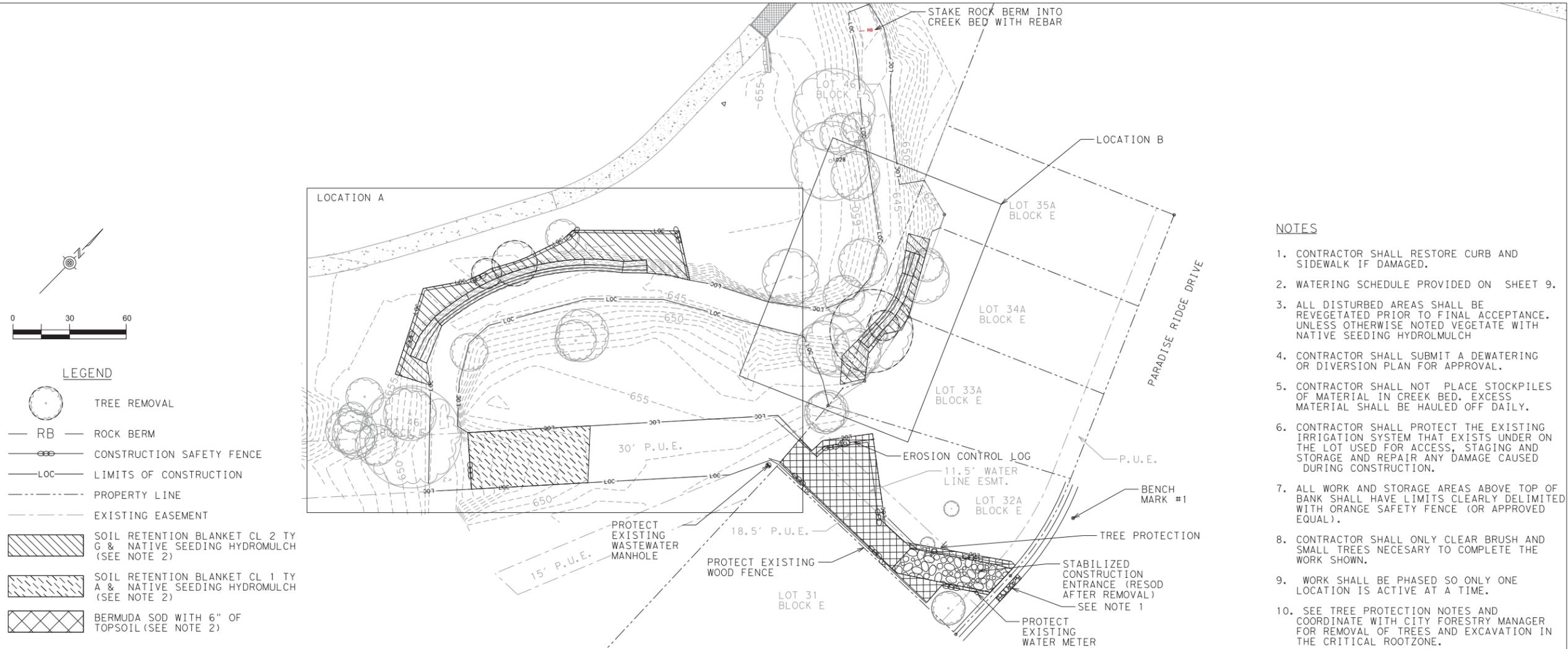


City of Round Rock

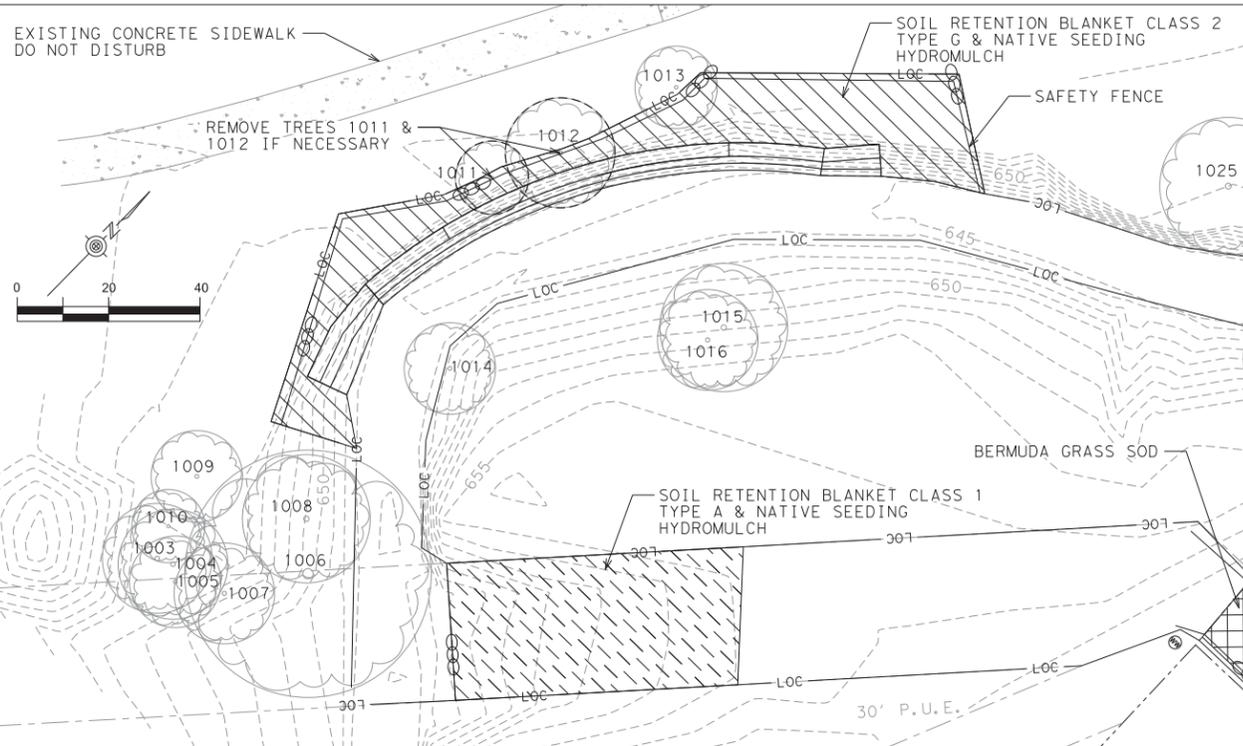
SCALE

DATE 11/3/2015

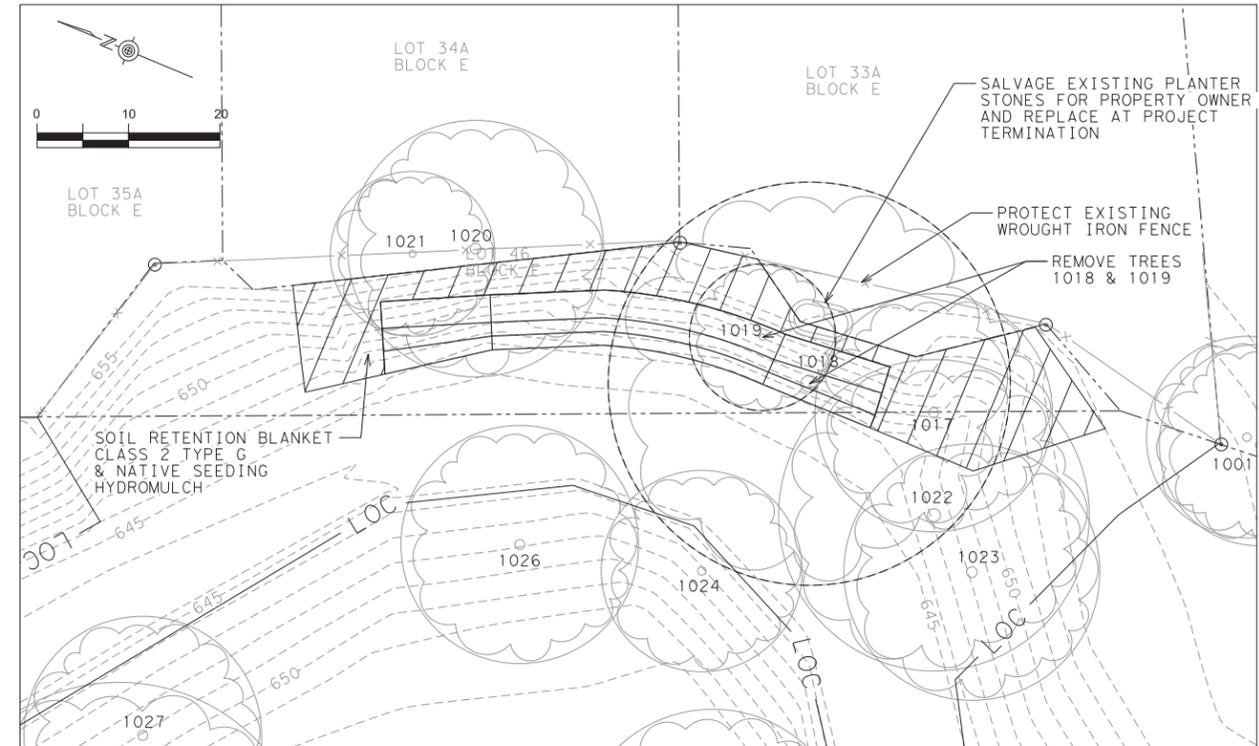
SHEET NUMBER 2 OF 10



- NOTES**
1. CONTRACTOR SHALL RESTORE CURB AND SIDEWALK IF DAMAGED.
  2. WATERING SCHEDULE PROVIDED ON SHEET 9.
  3. ALL DISTURBED AREAS SHALL BE REVEGETATED PRIOR TO FINAL ACCEPTANCE. UNLESS OTHERWISE NOTED VEGETATE WITH NATIVE SEEDING HYDROMULCH
  4. CONTRACTOR SHALL SUBMIT A DEWATERING OR DIVERSION PLAN FOR APPROVAL.
  5. CONTRACTOR SHALL NOT PLACE STOCKPILES OF MATERIAL IN CREEK BED. EXCESS MATERIAL SHALL BE HAULED OFF DAILY.
  6. CONTRACTOR SHALL PROTECT THE EXISTING IRRIGATION SYSTEM THAT EXISTS UNDER ON THE LOT USED FOR ACCESS, STAGING AND STORAGE AND REPAIR ANY DAMAGE CAUSED DURING CONSTRUCTION.
  7. ALL WORK AND STORAGE AREAS ABOVE TOP OF BANK SHALL HAVE LIMITS CLEARLY DELIMITED WITH ORANGE SAFETY FENCE (OR APPROVED EQUAL).
  8. CONTRACTOR SHALL ONLY CLEAR BRUSH AND SMALL TREES NECESSARY TO COMPLETE THE WORK SHOWN.
  9. WORK SHALL BE PHASED SO ONLY ONE LOCATION IS ACTIVE AT A TIME.
  10. SEE TREE PROTECTION NOTES AND COORDINATE WITH CITY FORESTRY MANAGER FOR REMOVAL OF TREES AND EXCAVATION IN THE CRITICAL ROOTZONE.



LOCATION A EROSION CONTROL LAYOUT



LOCATION B EROSION CONTROL LAYOUT

REV. NO.	BY	DATE	REVISION DESCRIPTION



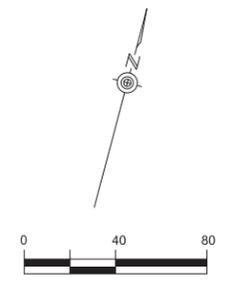
**K FRIESE & ASSOCIATES, INC.**  
 1120 S. CAPITAL OF TEXAS HWY, II-100, AUSTIN, TX 78746  
**CITY OF ROUND ROCK**  
**CHANNEL EROSION AT SONOMA**  
**SITE LAYOUT,**  
**EROSION & SEDIMENTATION CONTROL**



City of Round Rock	
SCALE	AS SHOWN
DATE	11/3/2015
SHEET NUMBER	3 OF 10

11/3/2015 037\_SITE\_EC.dgn

11/3/2015  
0377\_TCP-01.dgn



- LEGEND**
- - - - - PROPERTY LINE
  - ▭ CONSTRUCTION SIGN
  - - - - - LIMITS OF CONSTRUCTION

REV. NO.	BY	DATE	REVISION DESCRIPTION



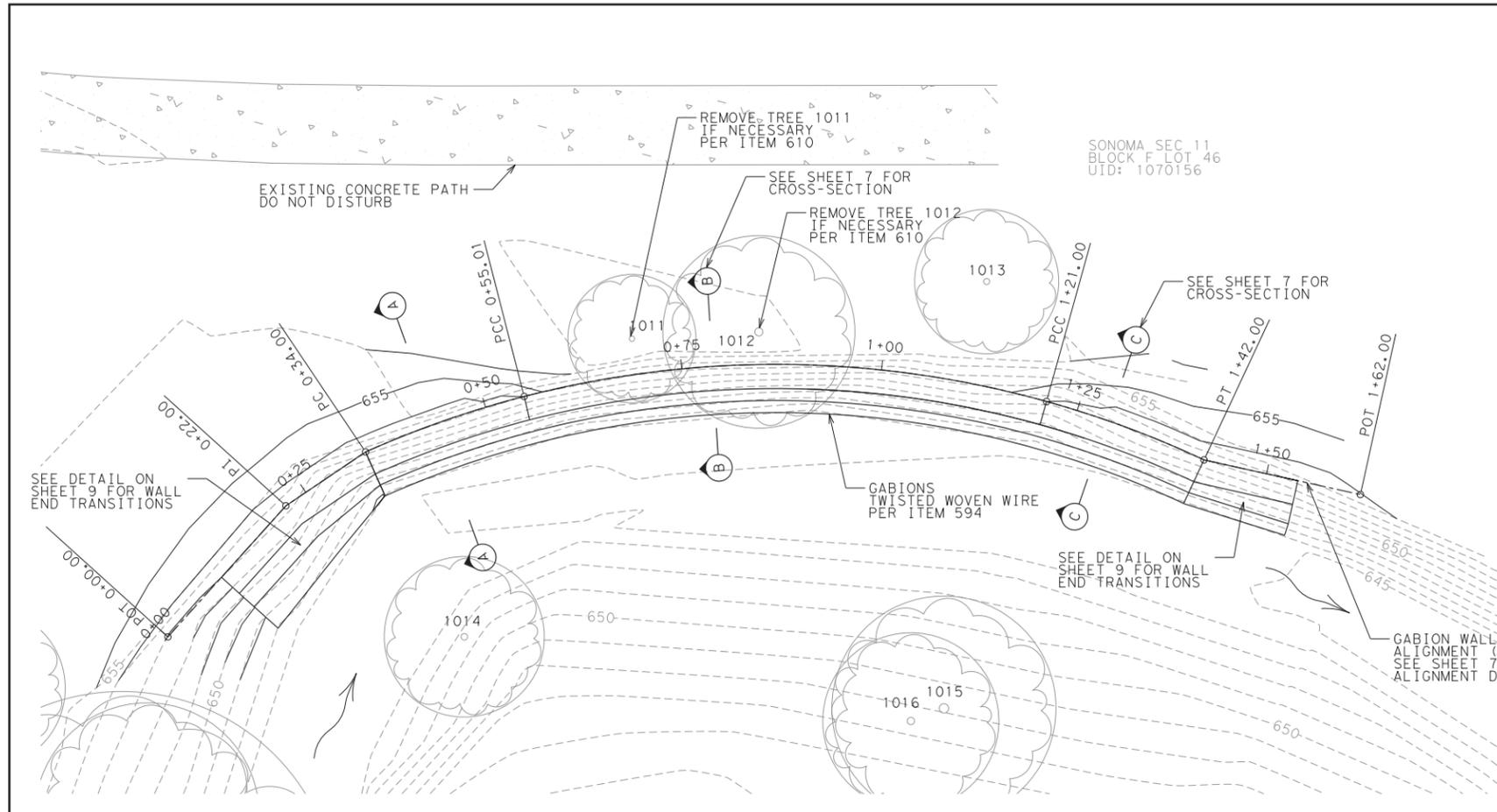
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CITY OF ROUND ROCK  
CHANNEL EROSION AT SONOMA

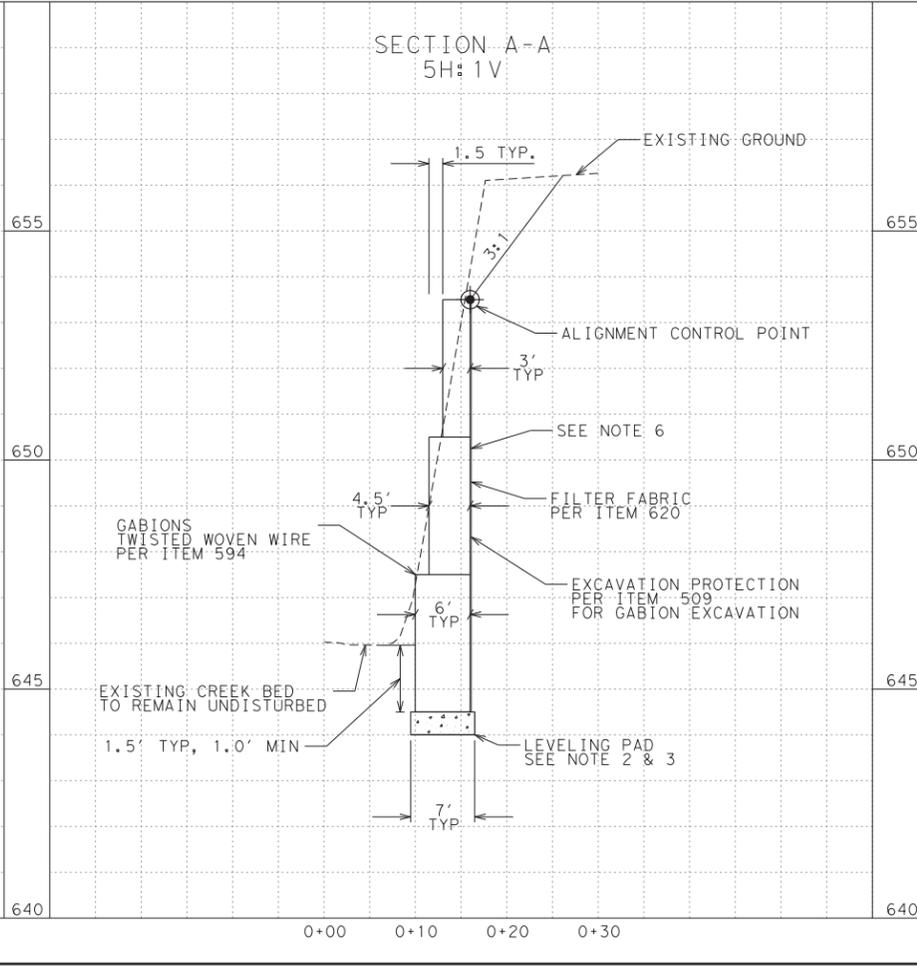
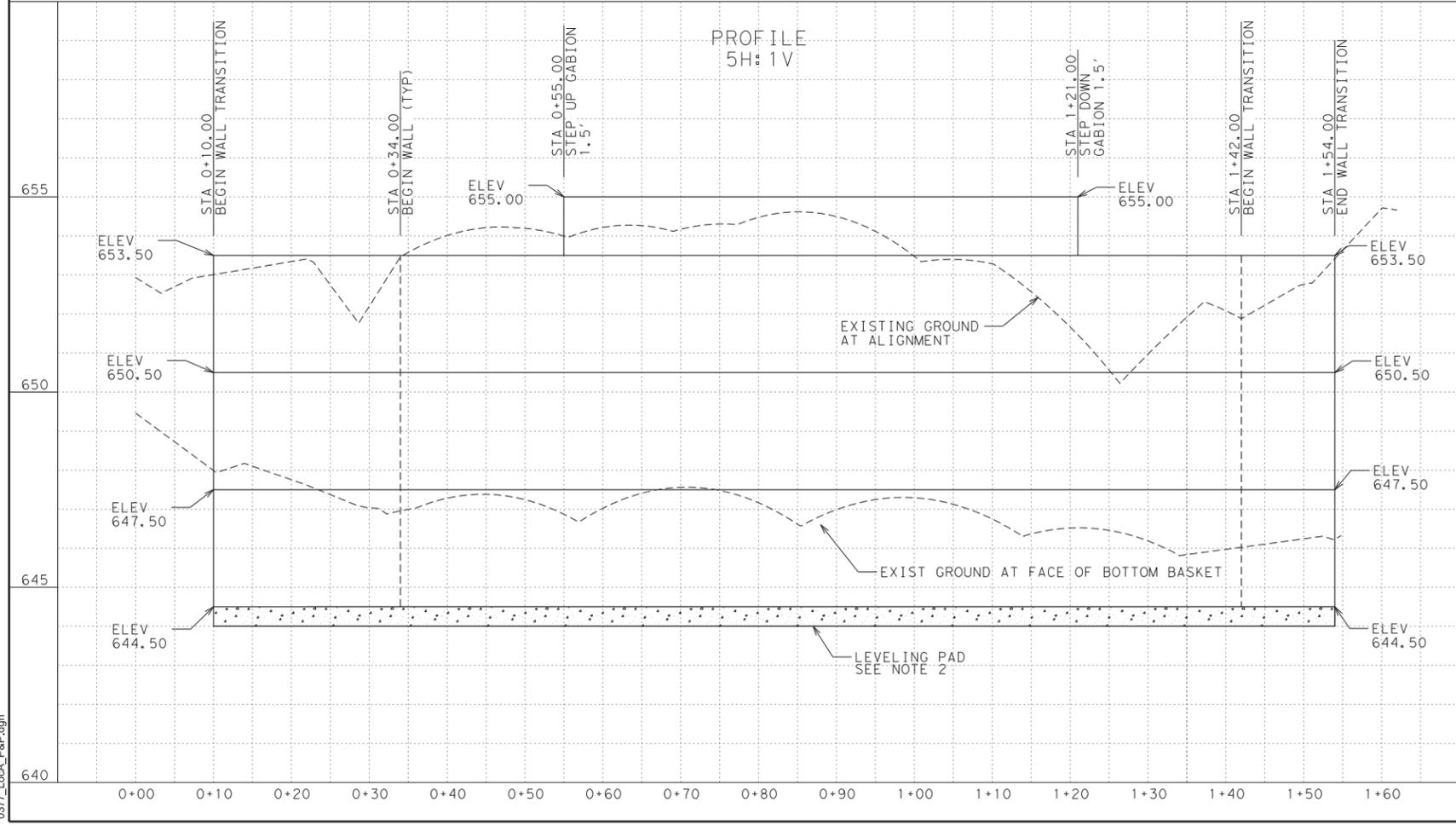
TRAFFIC CONTROL PLAN



City of Round Rock	
SCALE	1" = 80'
DATE	11/3/2015
SHEET NUMBER	4 OF 10



- NOTES**
- GABION WALL SHALL BE FOUNDED ON LIMESTONE. IF EXCAVATION EXCEEDS 12" BELOW BOTTOM OF WALL NOTIFY ENGINEER.
  - GABIONS SHALL BE PLACED ON A LEVEL SURFACE. IF EXCAVATION IS NOT EVEN OR LEVEL A CONCRETE LEVELING PAD (CLASS A CONC) PER ITEM 403 SHALL BE POURED TO ENSURE A LEVEL SURFACE. QUANTITY ESTIMATE ASSUMES HALF THE LENGTH OF WALLS NEED LEVELING PAD.
  - IF A LEVELING PAD IS NEEDED THE GABION BASKETS SHALL SIT FULLY UPON THE LEVELING PAD.
  - AVOID VOIDS OR BULGES TO KEEP GABIONS UNIFORMLY RECTANGULAR IN APPEARANCE. MANUALLY PLACE STONES IF NECESSARY.
  - OFFSET VERTICAL GABION JOINTS ON ADJACENT LEVELS BY A MINIMUM OF 1.5 FEET.
  - FILL SPACE BETWEEN EXCAVATION AND BACK OF GABION WITH SELF COMPACTING GRANULAR MATERIAL. COST SUBSIDIARY TO GABIONS.
  - CONTRACTOR TO SUBMIT EXCAVATION SAFETY PLAN PER ITEM 509.
- LEGEND**
- EXISTING TREE
  - ▣ EXISTING CONCRETE
  - - - EXISTING CONTOUR
  - PROPOSED CONTOUR



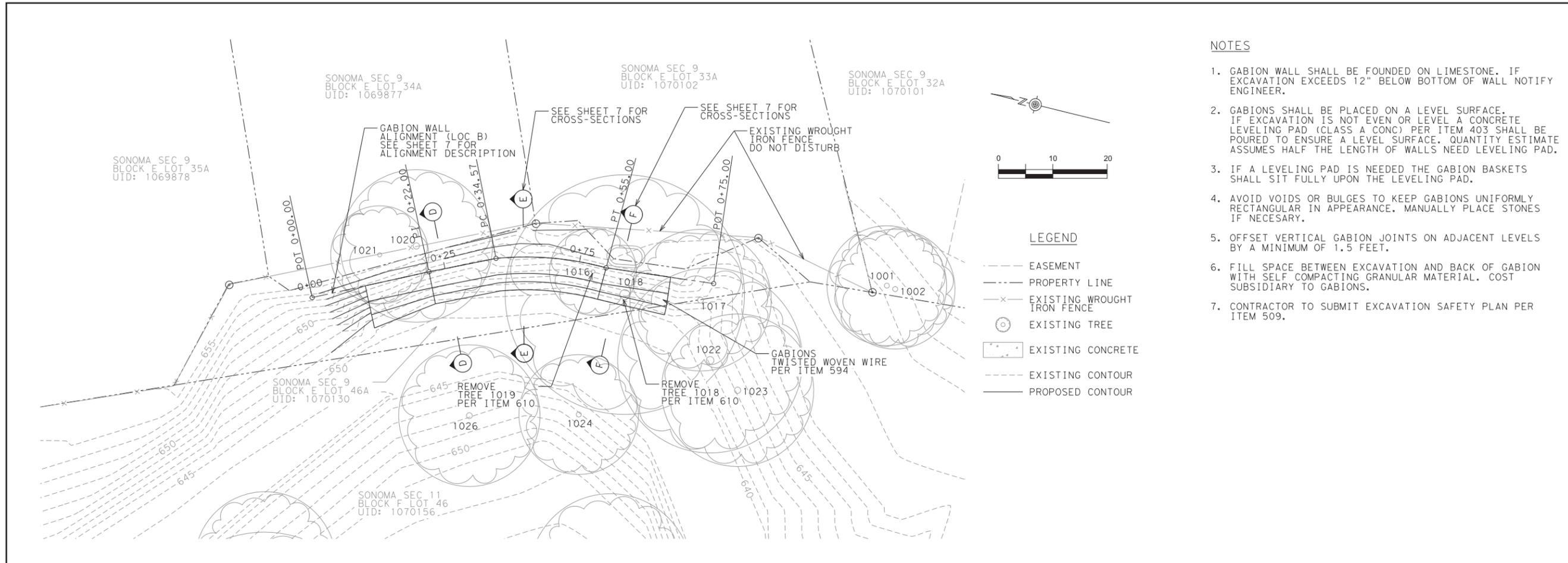
REVISION DESCRIPTION	DATE	BY	REV. NO.

**K FRIESE & ASSOCIATES, INC.**  
 1120 S. CAPITAL OF TEXAS HWY, II-100, AUSTIN, TX 78746  
**CITY OF ROUND ROCK**  
**CHANNEL EROSION AT SONOMA**  
**PLAN & PROFILE**  
**LOCATION A**

City of Round Rock

SCALE	1" = 10'
DATE	11/3/2015
SHEET NUMBER	5 OF 10

11/3/2015 0377\_LocA\_P&P.dgn

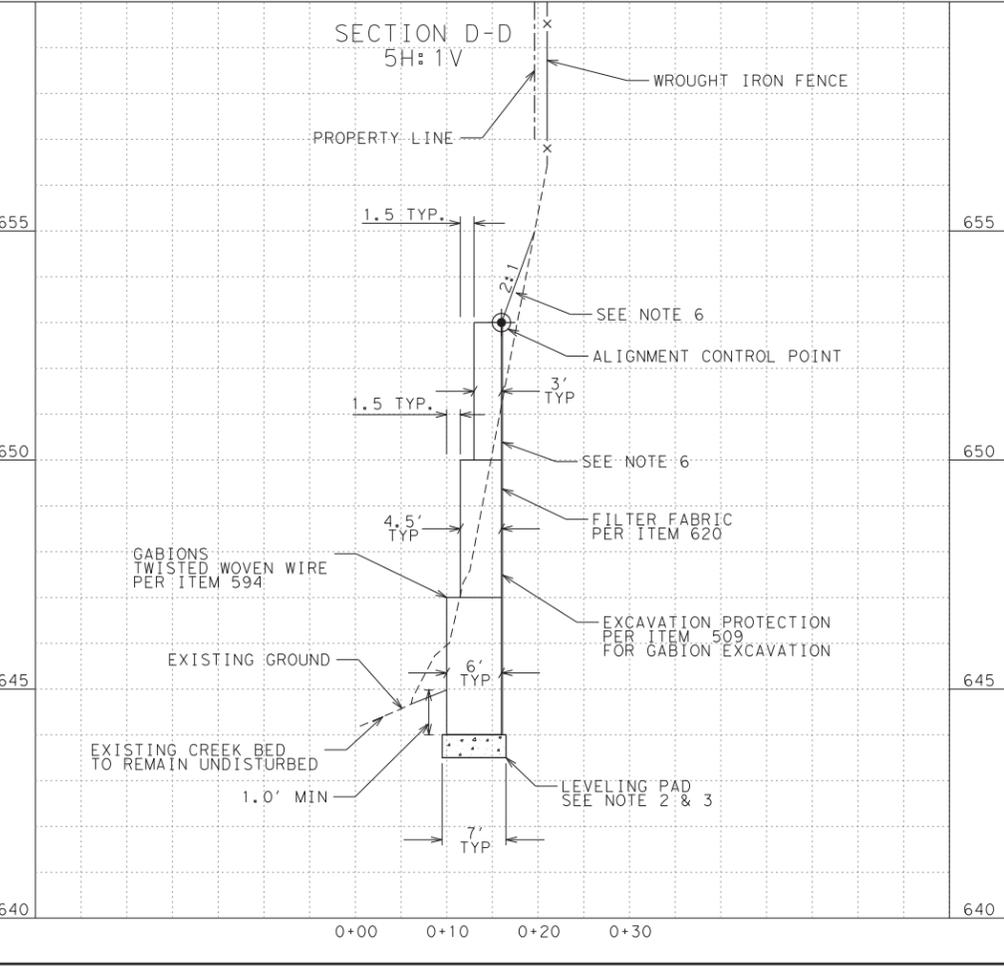
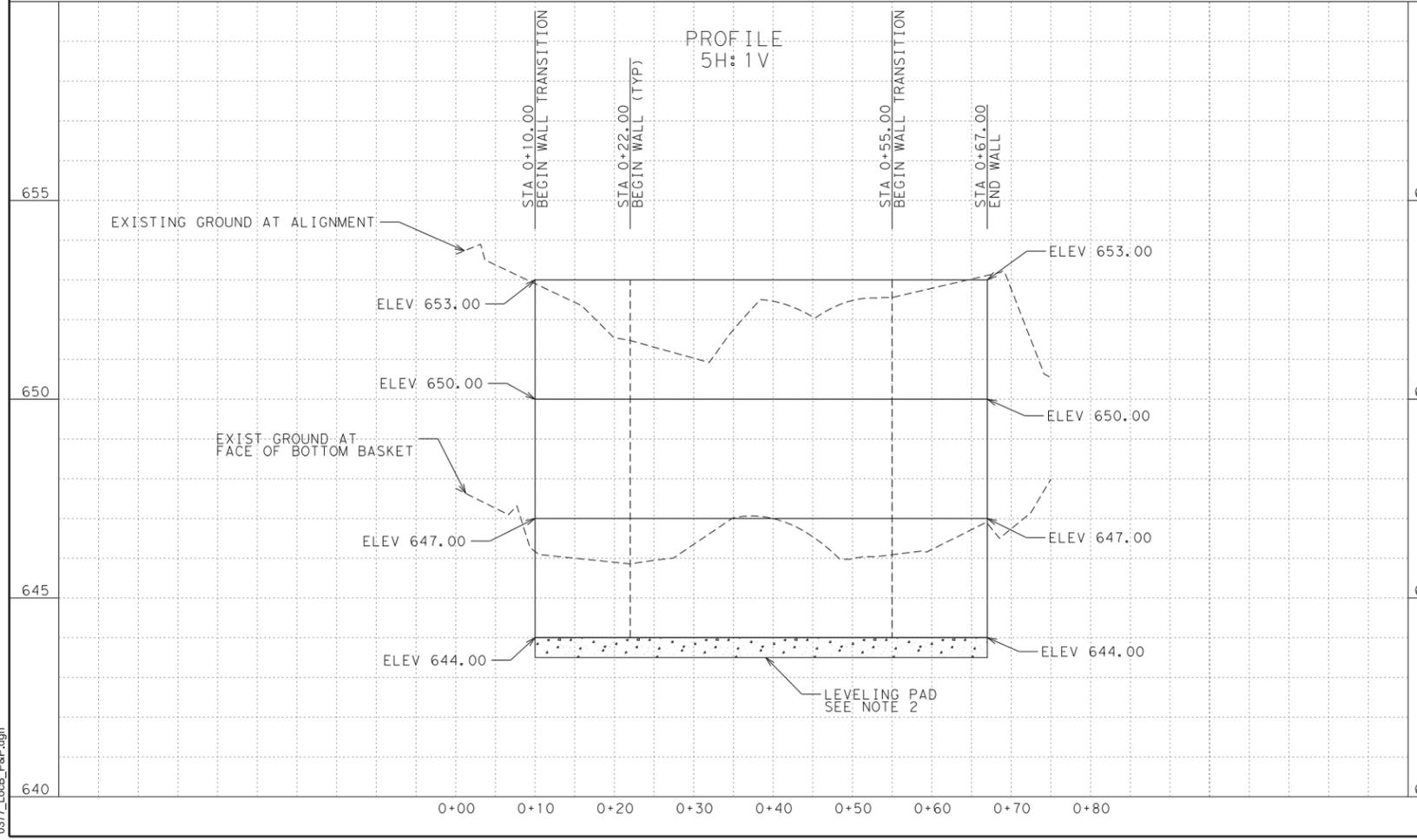


- NOTES**
- GABION WALL SHALL BE FOUNDED ON LIMESTONE. IF EXCAVATION EXCEEDS 12" BELOW BOTTOM OF WALL NOTIFY ENGINEER.
  - GABIONS SHALL BE PLACED ON A LEVEL SURFACE. IF EXCAVATION IS NOT EVEN OR LEVEL A CONCRETE LEVELING PAD (CLASS A CONC) PER ITEM 403 SHALL BE POURED TO ENSURE A LEVEL SURFACE. QUANTITY ESTIMATE ASSUMES HALF THE LENGTH OF WALLS NEED LEVELING PAD.
  - IF A LEVELING PAD IS NEEDED THE GABION BASKETS SHALL SIT FULLY UPON THE LEVELING PAD.
  - AVOID VOIDS OR BULGES TO KEEP GABIONS UNIFORMLY RECTANGULAR IN APPEARANCE. MANUALLY PLACE STONES IF NECESSARY.
  - OFFSET VERTICAL GABION JOINTS ON ADJACENT LEVELS BY A MINIMUM OF 1.5 FEET.
  - FILL SPACE BETWEEN EXCAVATION AND BACK OF GABION WITH SELF COMPACTING GRANULAR MATERIAL. COST SUBSIDIARY TO GABIONS.
  - CONTRACTOR TO SUBMIT EXCAVATION SAFETY PLAN PER ITEM 509.

REV. NO.	BY	DATE	REVISION DESCRIPTION



**K FRIESE & ASSOCIATES, INC.**  
 1120 S. CAPITAL OF TEXAS HWY, II-100, AUSTIN, TX 78746  
**CITY OF ROUND ROCK**  
**CHANNEL EROSION AT SONOMA**  
**PLAN & PROFILE**  
**LOCATION B**



City of Round Rock	
SCALE	1" = 10'
DATE	11/3/2015
SHEET NUMBER	6 OF 10

11/3/2015 0377\_LocB\_P&P.dgn

ALIGNMENT "LOC\_A"

Point 400 N 10,161,266.21 E 3,148,018.28 Sta 0+00.00  
 Course from 400 to 401 N 19°20' 06" W Dist 22.00  
 Point 401 N 10,161,286.97 E 3,148,011.00 Sta 0+22.00  
 Course from 401 to 402 N 5°21' 54" W Dist 12.00  
 Point 402 N 10,161,298.91 E 3,148,009.87 Sta 0+34.00

Curve LOC\_A3  
 P.I. Station = 0+44.53 N 10,161,309.41 E 3,148,010.72  
 Delta = 9°33' 13" (RT)  
 Degree = 45°28' 22"  
 Tangent = 10.53  
 Length = 21.01  
 Radius = 126.00  
 External = 0.44  
 Long Chord = 20.99  
 Mid. Ord. = 0.44  
 P.C. Station = 0+34.00 N 10,161,298.91 E 3,148,009.87  
 P.T. Station = 0+55.01 N 10,161,319.62 E 3,148,013.29  
 C.C. = N 10,161,288.81 E 3,148,135.47  
 Back = N 4°36' 04" E  
 Ahead = N 14°09' 17" E  
 Chord Bear = N 9°22' 41" E

Curve LOC\_A4  
 P.I. Station = 0+88.78 N 10,161,352.36 E 3,148,021.55  
 Delta = 30°00' 28" (RT)  
 Degree = 45°28' 22"  
 Tangent = 33.77  
 Length = 65.99  
 Radius = 126.00  
 External = 1.45  
 Long Chord = 64.50  
 Mid. Ord. = 4.50  
 P.C. Station = 0+55.01 N 10,161,319.62 E 3,148,013.29  
 P.T. Station = 1+21.00 N 10,161,376.59 E 3,148,045.08  
 C.C. = N 10,161,288.81 E 3,148,135.47  
 Back = N 14°09' 14" E  
 Ahead = N 44°09' 41" E  
 Chord Bear = N 29°09' 28" E

Curve LOC\_A5  
 P.I. Station = 1+31.52 N 10,161,384.14 E 3,148,052.41  
 Delta = 9°32' 57" (RT)  
 Degree = 45°28' 22"  
 Tangent = 10.52  
 Length = 21.00  
 Radius = 126.00  
 External = 0.44  
 Long Chord = 20.98  
 Mid. Ord. = 0.44  
 P.C. Station = 1+21.00 N 10,161,376.59 E 3,148,045.08  
 P.T. Station = 1+42.00 N 10,161,390.37 E 3,148,060.89  
 C.C. = N 10,161,288.81 E 3,148,135.47  
 Back = N 44°09' 41" E  
 Ahead = N 53°42' 39" E  
 Chord Bear = N 48°56' 10" E

Point 450 N 10,161,390.37 E 3,148,060.89 Sta 1+42.00  
 Course from 450 to 451 N 41°04' 25" E Dist 20.00  
 Point 451 N 10,161,405.45 E 3,148,074.03 Sta 1+62.00

ALIGNMENT "LOC\_B"

Point 100 N 10,161,511.77 E 3,148,166.26 Sta 0+00.00  
 Course from 100 to 101 S 26° 09' 42" E Dist 22.00  
 Point 101 N 10,161,492.02 E 3,148,175.96 Sta 0+22.00  
 Course from 101 to PC LOC\_B-1 S 24° 58' 49" E Dist 12.57

Curve LOC\_B-1  
 P.I. Station = 0+44.90 N 10,161,470.88 E 3,148,184.67  
 Delta = 20° 44' 03" (RT)  
 Degree = 101° 30' 11"  
 Tangent = 10.33  
 Length = 20.43  
 Radius = 56.45  
 External = 0.94  
 Long Chord = 20.32  
 Mid. Ord. = 0.92  
 P.C. Station = 0+34.57 N 10,161,480.63 E 3,148,181.27  
 P.T. Station = 0+55.00 N 10,161,460.55 E 3,148,184.41  
 C.C. = N 10,161,462.01 E 3,148,127.98  
 Back = S 19° 15' 22" E  
 Ahead = S 1° 23' 41" W  
 Chord Bear = S 8° 53' 20" E

Course from PT LOC\_B-1 to 102 S 5° 23' 49" E Dist 20.00  
 Point 102 N 10,161,440.64 E 3,148,186.29 Sta 0+75.00

NOTES

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- GABIONS SHALL BE PLACED ON A LEVEL SURFACE. IF EXCAVATION IS NOT EVEN OR LEVEL A CONCRETE LEVELING PAD (CLASS A CONC) PER ITEM 403 SHALL BE POURED TO ENSURE A LEVEL SURFACE. QUANTITY ESTIMATE ASSUMES HALF THE LENGTH OF WALLS NEED LEVELING PAD.
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- AVOID VOIDS OR BULGES TO KEEP GABIONS UNIFORMLY RECTANGULAR IN APPEARANCE. MANUALLY PLACE STONES IF NECESSARY.
- OFFSET VERTICAL GABION JOINTS ON ADJACENT LEVELS BY A MINIMUM OF 1.5 FEET.
- FILL SPACE BETWEEN EXCAVATION AND BACK OF GABION WITH SELF COMPACTING GRANULAR MATERIAL. COST SUBSIDIARY TO GABIONS.
- CONTRACTOR TO SUBMIT EXCAVATION SAFETY PLAN PER ITEM 509.

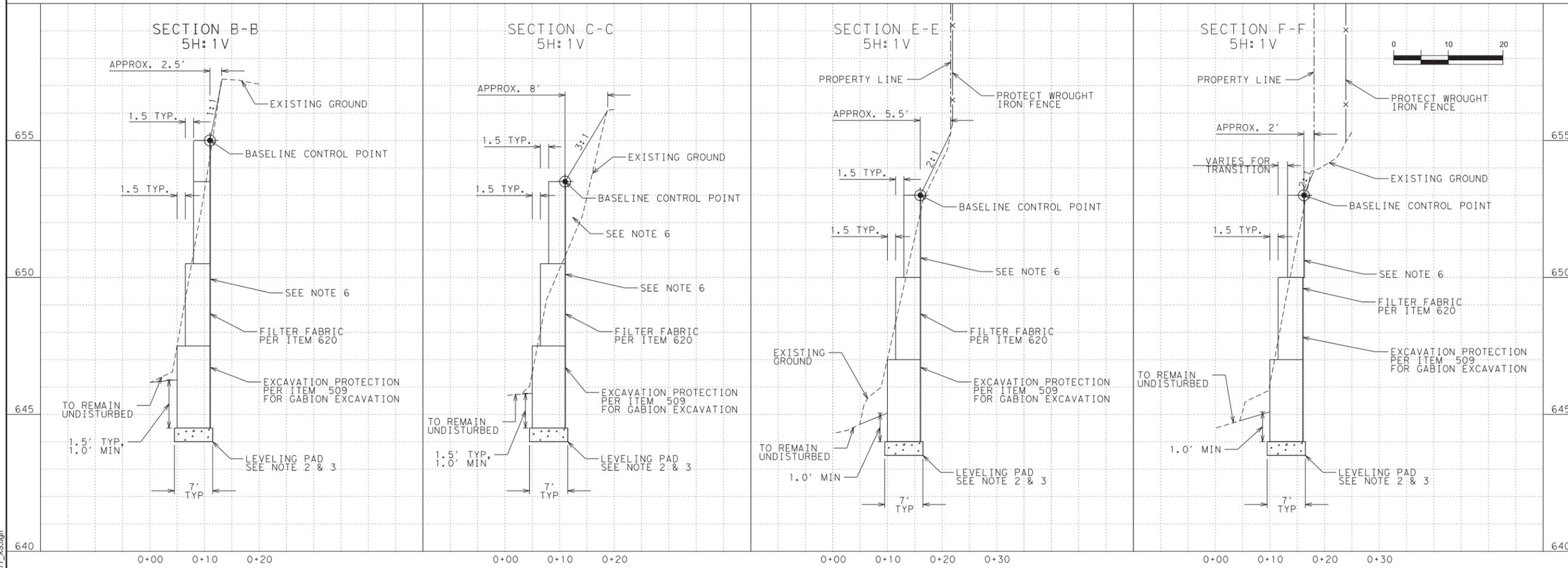


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 1120 S. CAPITAL OF TEXAS HWY, II-100, AUSTIN, TX 78746  
 CITY OF ROUND ROCK  
 CHANNEL EROSION AT SONOMA  
 CROSS-SECTIONS &  
 GABION ALIGNMENT DATA



City of Round Rock

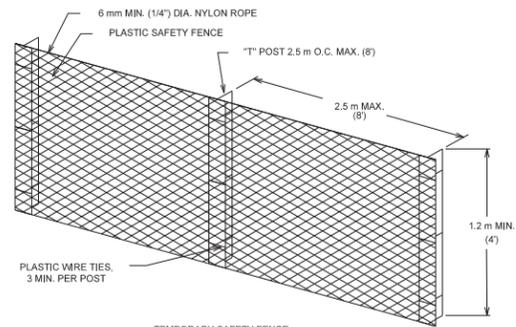
SCALE	1" = 10'
DATE	11/3/2015
SHEET NUMBER	7 OF 10



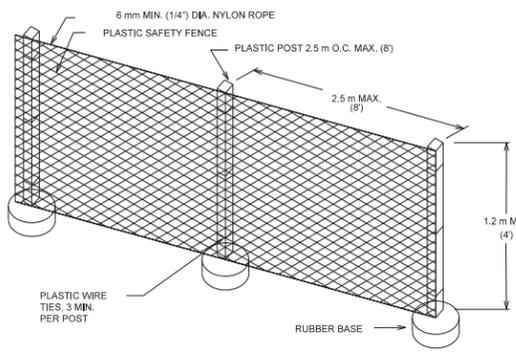
11/3/2015  
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TEMPORARY SAFETY FENCE



PORTABLE SAFETY FENCE

1. SAFETY FENCE SHALL BE USED TO PROTECT ALL AREAS SHOWN ON PLANS.
2. SAFETY FENCES SHALL BE USED TO SEPARATE CONSTRUCTION ACTIVITIES FROM PEDESTRIAN.
3. ALL SAFETY FENCING SHALL BE PLASTIC, 1,200 mm (48") MINIMUM HEIGHT AND ORANGE IN COLOR.
4. SAFETY FENCE USED WITHIN THE ROADWAY SHALL BE REFLECTORIZED WITH A MINIMUM OF TWO (2) STRIPS OF RETROREFLECTIVE MATERIAL, A MINIMUM OF 25 mm (1") WIDE. THE LENGTH OF THE FENCE OR DELINEATED BY CHANNELIZING DEVICES.
5. SAFETY FENCE USED TO SEPARATE SIDEWALKS FROM CONSTRUCTION ACTIVITIES SHALL HAVE MINIMUM ENCROACHMENT TO THE SIDEWALK.
6. AS A MINIMUM, SAFETY FENCING IS REQUIRED IN AREAS ADJACENT TO EXCAVATIONS GREATER THAN OR EQUAL TO 150 mm (6").
7. SAFETY FENCING SHALL BE PAID FOR UNDER ITEM 803S, "BARRICADES, SIGNS AND TRAFFIC HANDLING", PAY ITEM NO. 803S-SF.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SAFETY FENCE	
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. <b>804S-4</b> 1 OF 9

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SAFETY FENCE	
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. <b>804S-4</b> 2 OF 9

REV. NO.	BY	DATE	REVISION DESCRIPTION



**K FRIESE & ASSOCIATES, INC.**  
 1120 S. CAPITAL OF TEXAS HWY, II-100, AUSTIN, TX 78746  
**CITY OF ROUND ROCK**  
**CHANNEL EROSION AT SONOMA**  
**DETAILS**  
**3 OF 3**



City of Round Rock

SCALE	
DATE	11/3/2015
SHEET NUMBER	<b>10 OF 10</b>