

PLANS FOR THE CONSTRUCTION OF
 SLOPE PROTECTION/DROP STRUCTURE AT
 BELLA LANE VEHICULAR BRIDGE
 AND
 STABILIZATION AT THE DOWNSTREAM WEIR

VITRUVIAN PARK
 TOWN OF ADDISON, TEXAS
 PUBLIC WORKS # 2011-07
 FEBRUARY 2012

Addison!

*Dave's Copy
 4/19/12*

TODD MEIER
 MAYOR

BLAKE W. CLEMENS
 MAYOR PRO TEMPORE

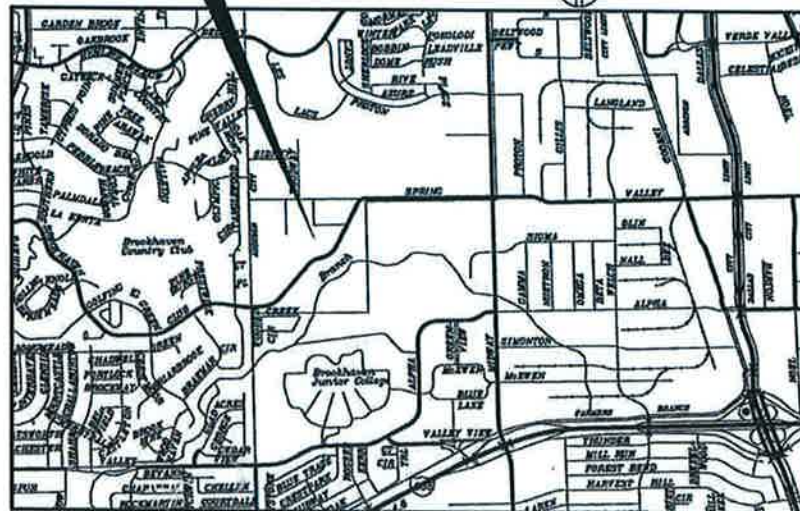
KIMBERLY LAY
 DEPUTY MAYOR PRO TEMPORE

BRUCE ARFSTEN
CHRIS DeFRANCISCO

ROGER S. MELLOW
NEIL RESNIK
 COUNCIL MEMBERS

RON WHITEHEAD
 CITY MANAGER

Project Location:



VICINITY MAP

SHEET INDEX

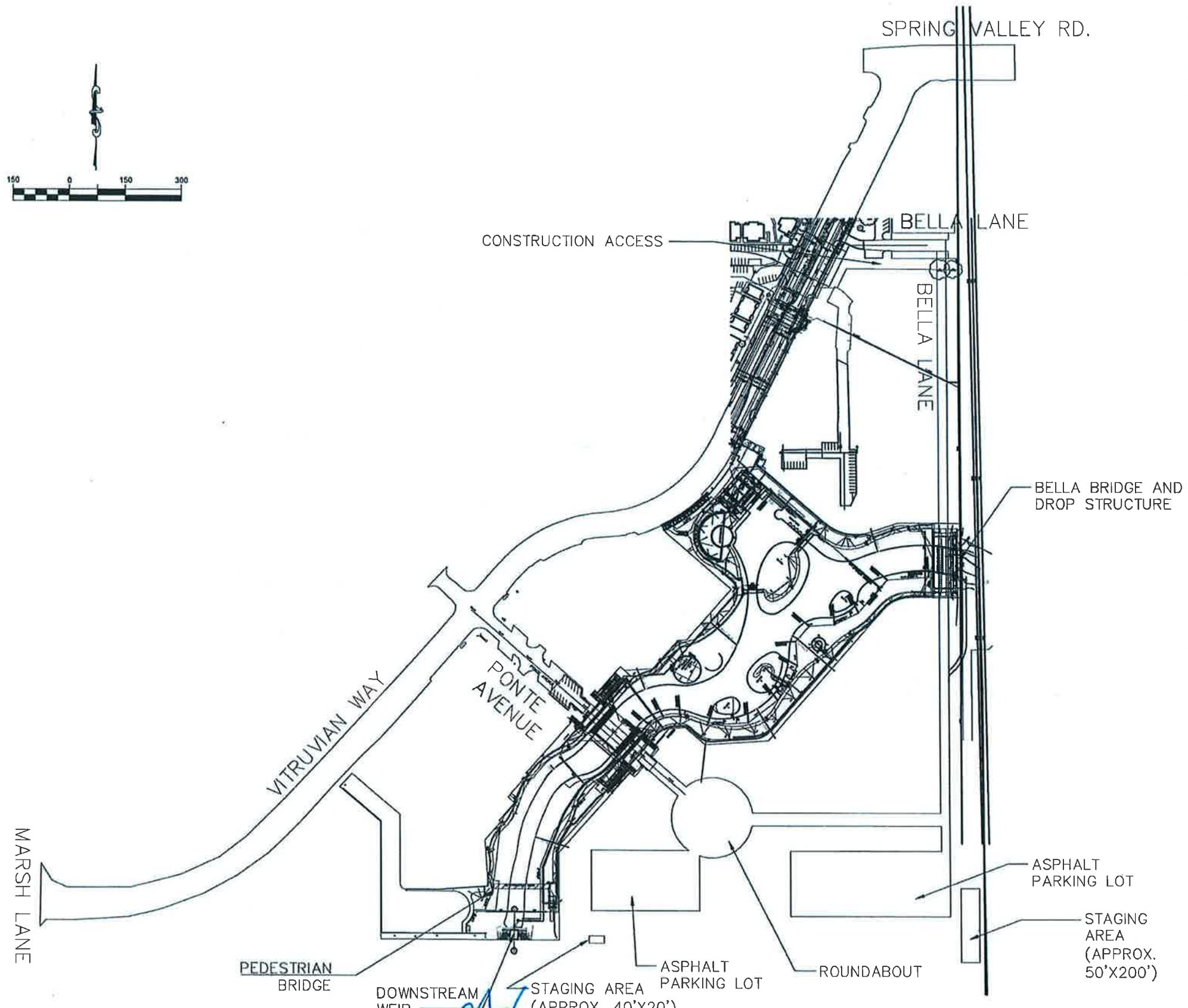
TITLE SHEET	1
OVERALL SITE MAP	2
CONTROL SHEET	3
DOWNSTREAM WEIR SITE MAP / PHASING	4
DOWNSTREAM WEIR PLAN AND PROFILE	5
DOWNSTREAM WEIR STRUCTURAL DETAILS	6-7
BELLA LANE DROP STRUCTURE SITE MAP	8
BELLA LANE DROP STRUCTURE PLAN AND PROFILE	9
BELLA LANE DROP STRUCTURE GRADING PLANS	10-11
BELLA LANE DROP STRUCTURE STRUCTURAL DETAILS	12-13
GENERAL DETAILS	14
CONCRETE RIPRAP (CRR) (MOD)	15

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 CONSULTING ENGINEERS, INC.
 Texas Reg. No. F-356

TWO PARK LANE PLACE / 8080 PARK LANE / SUITE 600
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[Signature]
 01/27/12

NDM Job Number:11-03-037



GENERAL NOTES:

1. CONTRACTOR SHALL ADJUST ACCESS ROUTES AS NECESSARY TO AVOID IMPROVEMENTS. ACCESS ROUTE SUBJECT TO OWNER APPROVAL.
2. THE LOCATIONS, ELEVATIONS, AND SIZES OF EXISTING UTILITIES SHOWN ON THESE PLANS WERE OBTAINED FROM EXISTING CONSTRUCTION PLANS AND ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF ALL EXISTING UTILITIES BEFORE CONSTRUCTION. VERIFICATION SHALL INCLUDE ESTABLISHMENT OF THE HORIZONTAL AND VERTICAL LOCATIONS. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE. CONTRACTOR SHALL ALSO COORDINATE WITH APPLICABLE UTILITIES PRIOR TO BEGINNING WORK.
3. IRRIGATION REPAIR SHALL BE PERFORMED BY A LICENSED IRRIGATOR. ANY IRRIGATION DAMAGED BY CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
4. ANY TREE TRIMMING SHALL BE PERFORMED BY A LICENSED ARBORIST. COORDINATE ALL PROPOSED TREE TRIMMING WITH THE OWNER. TREE REMOVAL SHALL BE COORDINATED WITH THE TOWN OF ADDISON PRIOR TO REMOVAL. ALL TREES TO BE REMOVED SHALL BE FLAGGED PRIOR TO REMOVAL.
5. CONSTRUCTION ACCESS FOR BOTH WORK AREAS SHALL BE FROM BELLA LANE. NO CONSTRUCTION TRAFFIC SHALL BE ALLOWED ON PONTE AVENUE.
6. NO MATERIAL OR EQUIPMENT SHALL BE STORED WITHIN THE CREEK CHANNEL.
7. ANY DAMAGE TO THE ROADWAYS, PARKING LOTS, SIDEWALKS OR OTHER EXISTING INFRASTRUCTURE DUE TO CONSTRUCTION MUST BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST.
8. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES DURING CONSTRUCTION. DRILLING, EXCAVATION AND DEMOLITION ACTIVITIES SHALL BE PERFORMED IN A MANNER TO NOT DAMAGE THE EXISTING STRUCTURES.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY SHUTDOWNS CONCERNING THE OVER-HEAD POWER LINES IN THE AREA WITH UTILITY SERVICE PROVIDER ONCOR.
10. CONTRACTOR SHALL RESTORE SITE TO LIKE OR BEFORE CONDITION UPON COMPLETION OF THE PROJECT. ALL DISTURBED AREAS SHALL RECEIVE A BLOCK SOD (BERMUDA CT-2).
11. STAGING AREAS SHALL BE FLAGGED FOR OWNER APPROVAL PRIOR TO INSTALLING CHAIN LINK FENCE.

DOWNSTREAM WEIR NOTES:

1. CONTRACTOR SHALL USE HANDHELD VIBRATOR WHEN PLACING FLOWABLE FILL TO ENSURE VOIDS ARE FULLY FILLED.
2. CONTRACTOR SHALL NOT ALLOW ANY ACTIVITY, PERSONNEL, OR EQUIPMENT, BEYOND 10' DOWNSTREAM FROM THE DOWNSTREAM PROPERTY LINE.
3. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING SANITARY SEWER AND APPURTENANCES. CONTRACTOR SHALL NOT OPERATE EQUIPMENT DIRECTLY OVER SANITARY SEWER LINE.
4. CONTRACTOR SHALL COORDINATE WITH OVERHEAD UTILITY COMPANY.
5. CONTRACTOR SHALL VERIFY PROPERTY LINE. PERMANENT IMPROVEMENTS SHALL NOT ENCRUCH INTO ADJACENT PROPERTIES.

BELLA LANE DROP STRUCTURE NOTES:

1. EXPOSED ELEMENTS OF CONCRETE DROP STRUCTURE SHALL BE INTEGRALLY COLORED CONCRETE IN ACCORDANCE WITH TxDOT ITEM 528 COLORED AND TEXTURED CONCRETE AND LANDSCAPE PAVERS. INTEGRALLY COLORED CONCRETE SHALL BE MATCHED TO FRENCH GRAY OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT COLOR AND PRODUCT MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE WITH OVERHEAD UTILITY COMPANY.

STRUCTURAL NOTES:

1. REFERENCES TO TxDOT SHALL BE THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, 2004 EDITION.
2. CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH TxDOT ITEM 421, HYDRAULIC CEMENT CONCRETE. CONCRETE SHALL BE CLASS C AND HAVE A MINIMUM 28-DAY COMPRESSION STRENGTH OF 3600 PSI. ALL MIX DESIGNS SHALL BE SUBMITTED FOR APPROVAL.
3. CONCRETE WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 318 AND TxDOT ITEM 420, CONCRETE STRUCTURES.
4. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 IN ACCORDANCE WITH TxDOT ITEM 440, REINFORCING STEEL. SUBMIT CERTIFICATION FOR ALL REINFORCING STEEL.
5. JOINT SEALERS AND FILLERS SHALL BE IN ACCORDANCE WITH TxDOT ITEM 438, CLEANING AND SEALING JOINTS AND CRACKS (RIGID PAVEMENT AND BRIDGE DECK). SUBMIT PRODUCT DATA FOR ALL JOINTS AND SEALANTS FOR APPROVAL. SEALANT SHALL BE POLYURETHANE CLASS I PER TxDOT MATERIAL SPECIFICATION DMS-6310.
6. ALL BAR DIMENSIONS ARE TO OUTSIDE OF BAR UNLESS OTHERWISE SHOWN.
7. ALL EARTHWORK SHALL CONFORM TO THE GEOTECHNICAL ENGINEERING REPORT. ON-SITE SOILS SHALL BE FREE OF VEGETATION, DEBRIS, AND ROCKS GREATER THAN 4 INCHES. COMPACTION OF BACKFILL SHALL CONFORM TO SECTION 4.7.2 "COMPACTION REQUIREMENTS". IMPORTED OR SELECT FILL MUST MEET THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEERING REPORT.
8. CHAMFER ALL EXPOSED EDGES OF CONCRETE STRUCTURES 3/4" UNLESS OTHERWISE NOTED.
9. REINFORCING BARS SHALL HAVE A MINIMUM CLEAR COVER OF 3" FOR CONCRETE CAST AGAINST EARTH AND 2" MINIMUM OTHERWISE.
10. DRILLED SHAFT CONSTRUCTION SHALL BE IN ACCORDANCE WITH TxDOT STANDARDS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL ENGINEERING REPORT.
11. ALL REINFORCING FOR THE DOWNSTREAM WEIR AND THE BELLA DROP STRUCTURE SHALL BE EPOXY COATED EXCLUDING PIERS AND CCR(MOD).



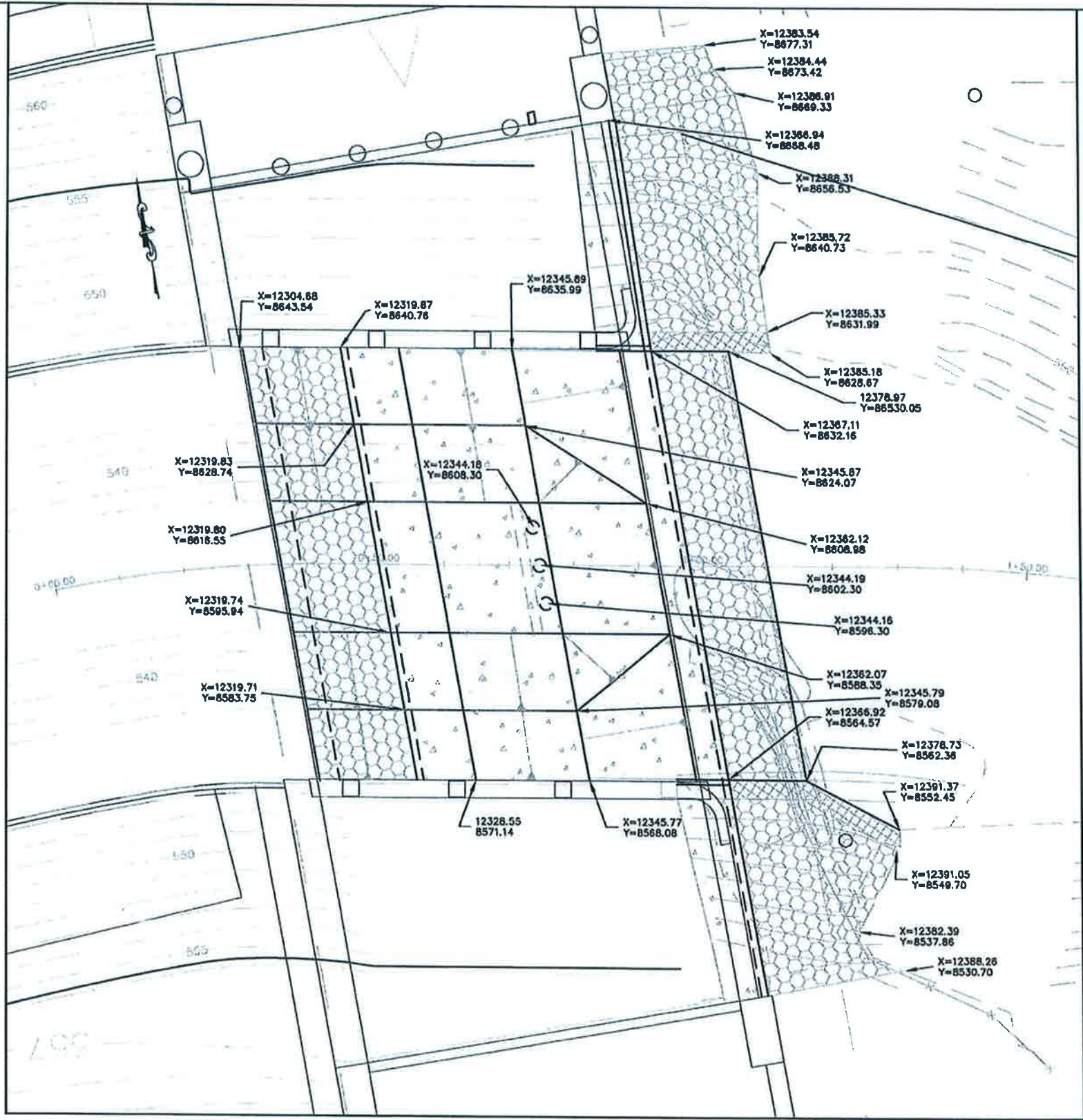
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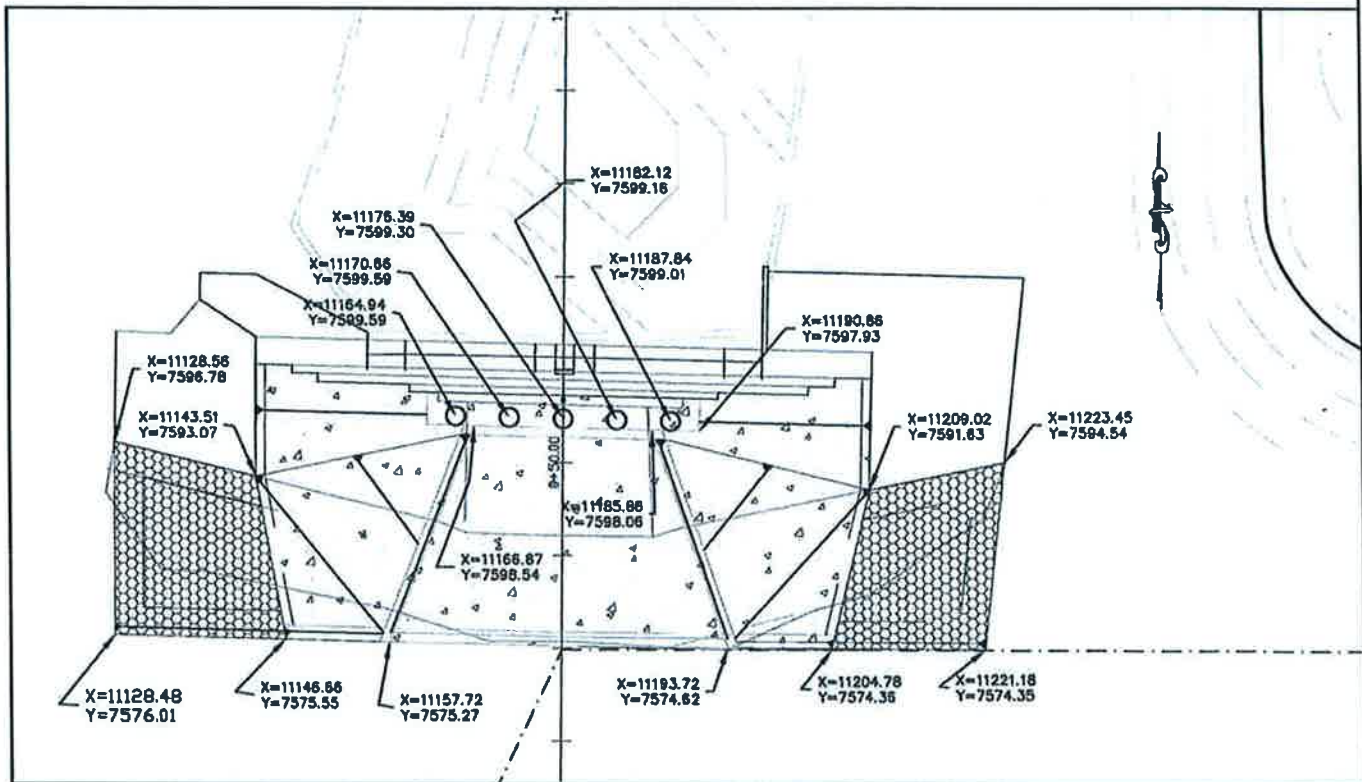
SLOPE PROTECTION/DROP STRUCTURE AT BELLA LANE VEHICULAR BRIDGE AND STABILIZATION AT THE DOWNSTREAM WEIR
VITRUVIAN PARK
TOWN OF ADDISON, TEXAS

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BuL	NDM	AS NOTED	1-27-12	SITE MAP

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BELLA LANE DROP STRUCTURE
SCALE: 1" = 10'-0"



DOWNSTREAM WEIR
SCALE: 1" = 10'-0"

LEGEND

-  PROPOSED CONCRETE PROTECTION
-  PROPOSED GABION PROTECTION
-  PROPOSED GABION WALL

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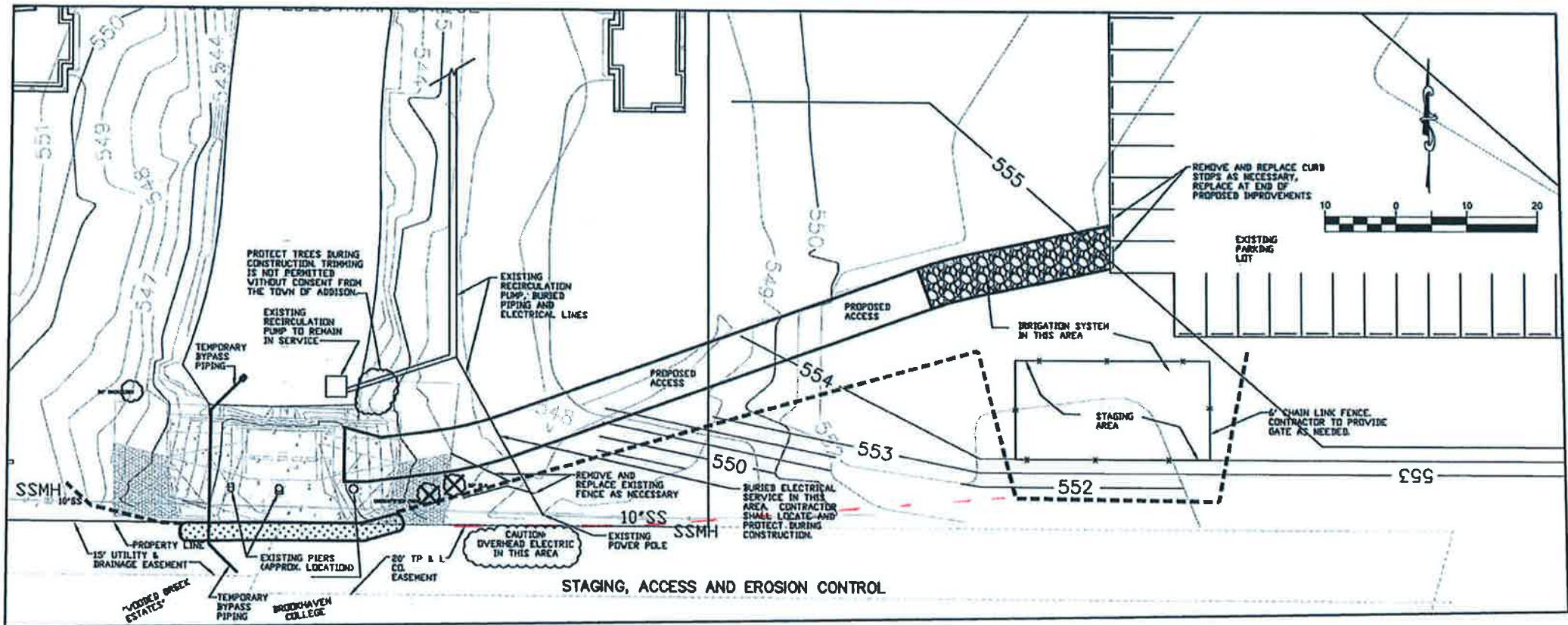
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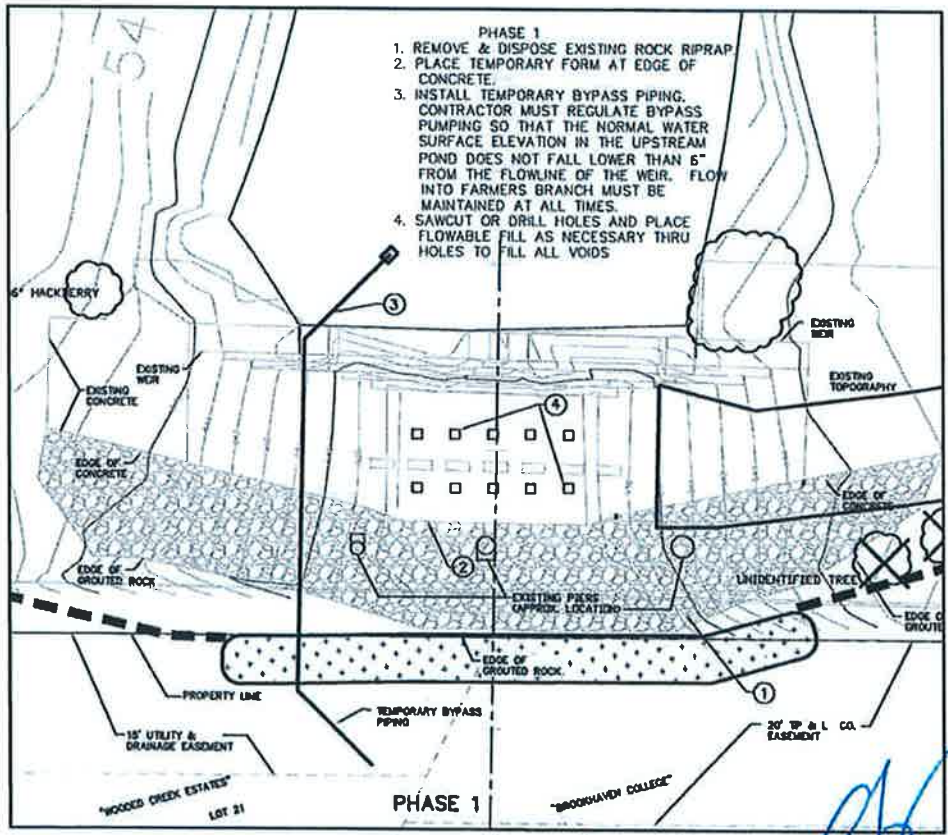
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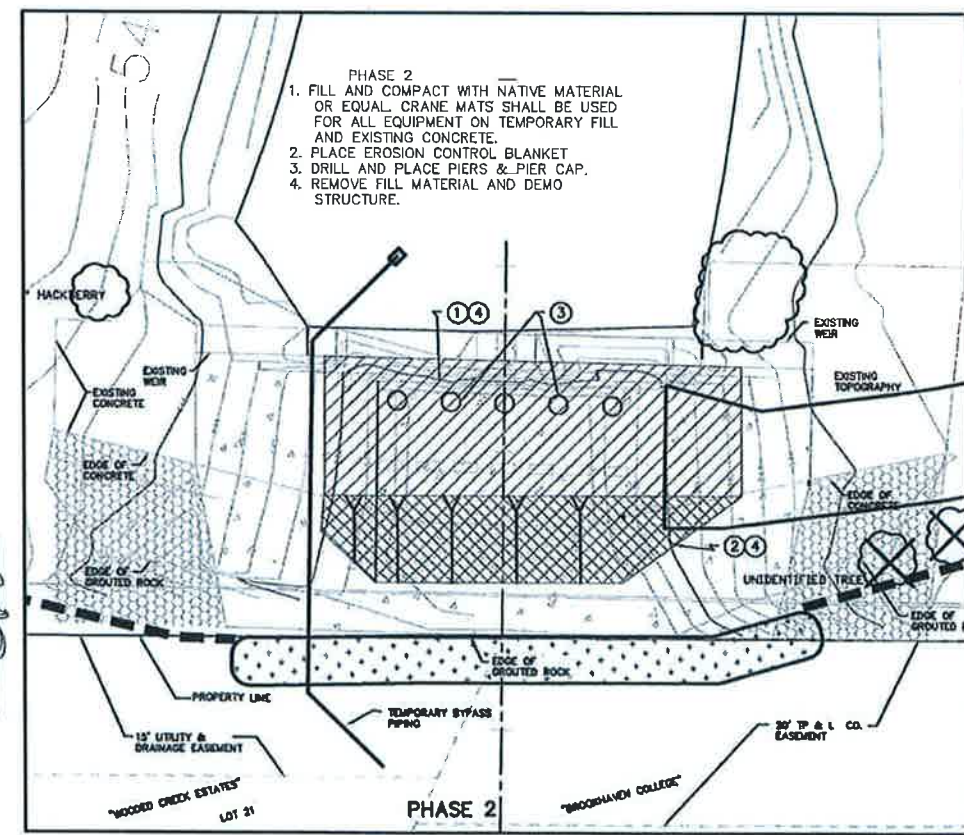
- NOTES:
1. CONTRACTOR SHALL REPAIR / REPLACE ANY DAMAGED IRRIGATION AS A RESULT OF CONSTRUCTION / ACCESS.
 2. DEWATERING MEASURES SHOWN ARE CONCEPTUAL ONLY. CONTRACTOR MUST SUBMIT A DEWATERING PLAN TO THE TOWN FOR APPROVAL PRIOR TO CONSTRUCTION.
 3. EXISTING ABANDONED AERIAL CROSSING PEIRS SHALL BE REMOVED TO 1'-0" BELOW BOTTOM OF PROPOSED CHANNEL LINING.
 4. CONTRACTOR SHALL PROTECT EXISTING RECIRCULATION PUMP, PIPING, AND ELECTRICAL SERVICE DURING CONSTRUCTION.

LEGEND

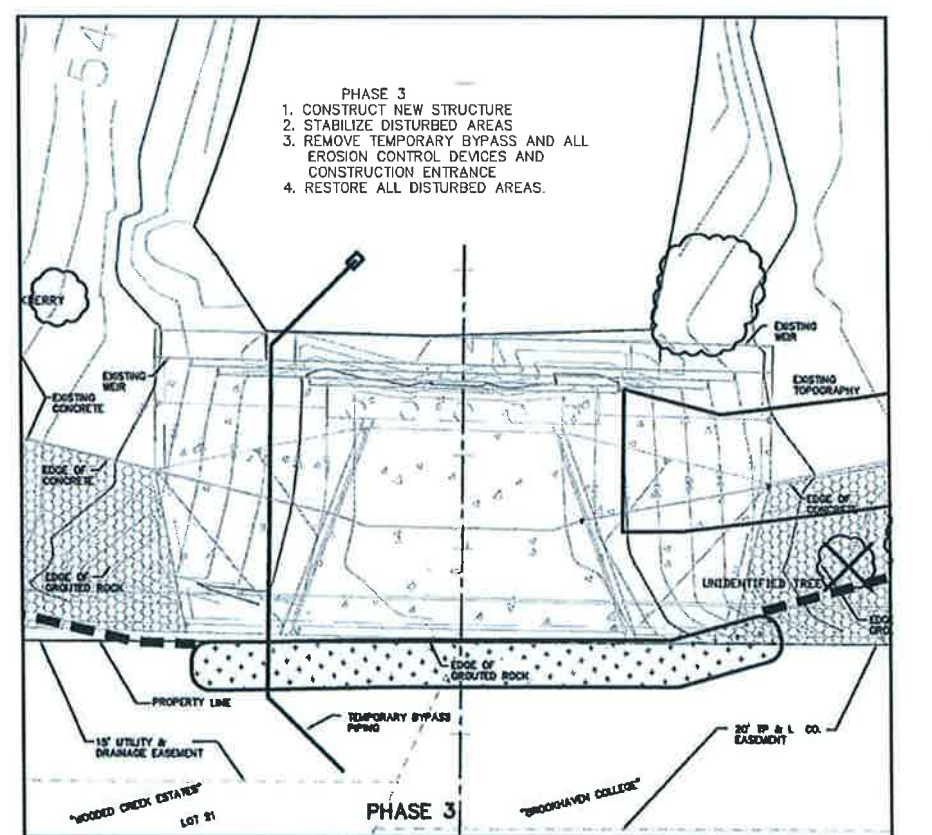
- PROPOSED SILT FENCE
- ▨ PROPOSED CONSTRUCTION ENTRANCE
- ▩ COFFER DAM
- ▧ PROPOSED REMOVAL OF CONCRETE STRUCTURE
- ▨ PROPOSED REMOVAL OF ROCK RIPRAP
- ▨ PROPOSED EROSION CONTROL BLANKET
- ▨ PROPOSED TEMP. FILL (MINIMUM DEPTH 3 FT.)
- ⊗ TREE REMOVAL



- PHASE 1
1. REMOVE & DISPOSE EXISTING ROCK RIPRAP
 2. PLACE TEMPORARY FORM AT EDGE OF CONCRETE.
 3. INSTALL TEMPORARY BYPASS PIPING. CONTRACTOR MUST REGULATE BYPASS PUMPING SO THAT THE NORMAL WATER SURFACE ELEVATION IN THE UPSTREAM POND DOES NOT FALL LOWER THAN 6" FROM THE FLOWLINE OF THE WEIR. FLOW INTO FARMERS BRANCH MUST BE MAINTAINED AT ALL TIMES.
 4. SAWCUT OR DRILL HOLES AND PLACE FLOWABLE FILL AS NECESSARY THRU HOLES TO FILL ALL VOIDS



- PHASE 2
1. FILL AND COMPACT WITH NATIVE MATERIAL OR EQUAL. CRANE MATS SHALL BE USED FOR ALL EQUIPMENT ON TEMPORARY FILL AND EXISTING CONCRETE.
 2. PLACE EROSION CONTROL BLANKET
 3. DRILL AND PLACE PIERS & PIER CAP.
 4. REMOVE FILL MATERIAL AND DEMO STRUCTURE.



- PHASE 3
1. CONSTRUCT NEW STRUCTURE
 2. STABILIZE DISTURBED AREAS
 3. REMOVE TEMPORARY BYPASS AND ALL EROSION CONTROL DEVICES AND CONSTRUCTION ENTRANCE
 4. RESTORE ALL DISTURBED AREAS.



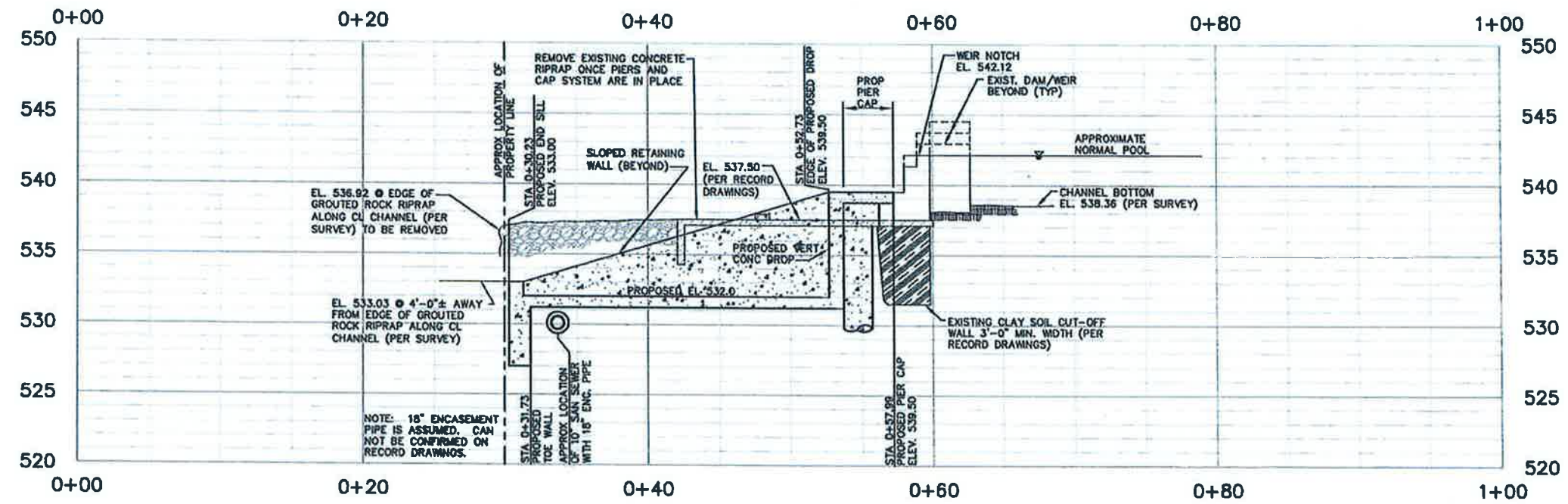
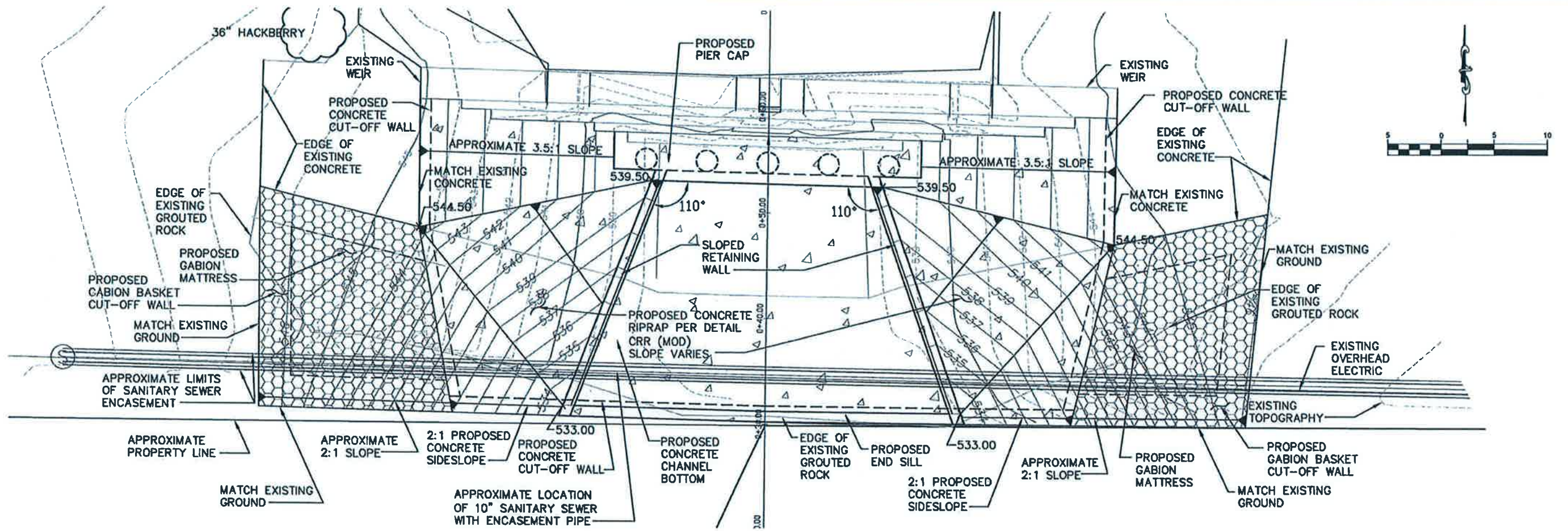
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AT BELLA LANE VEHICULAR BRIDGE
AND
STABILIZATION AT THE DOWNSTREAM
WEIR
VITRUVIAN PARK
TOWN OF ADDISON, TEXAS

DOWNSTREAM WEIR SITE MAP/PHASING					sheet no.
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LEGEND

	PROPOSED CONCRETE PROTECTION		EXISTING CONTOURS
	PROPOSED GABION PROTECTION		PROPOSED CONTOURS
			PROPOSED GRADE



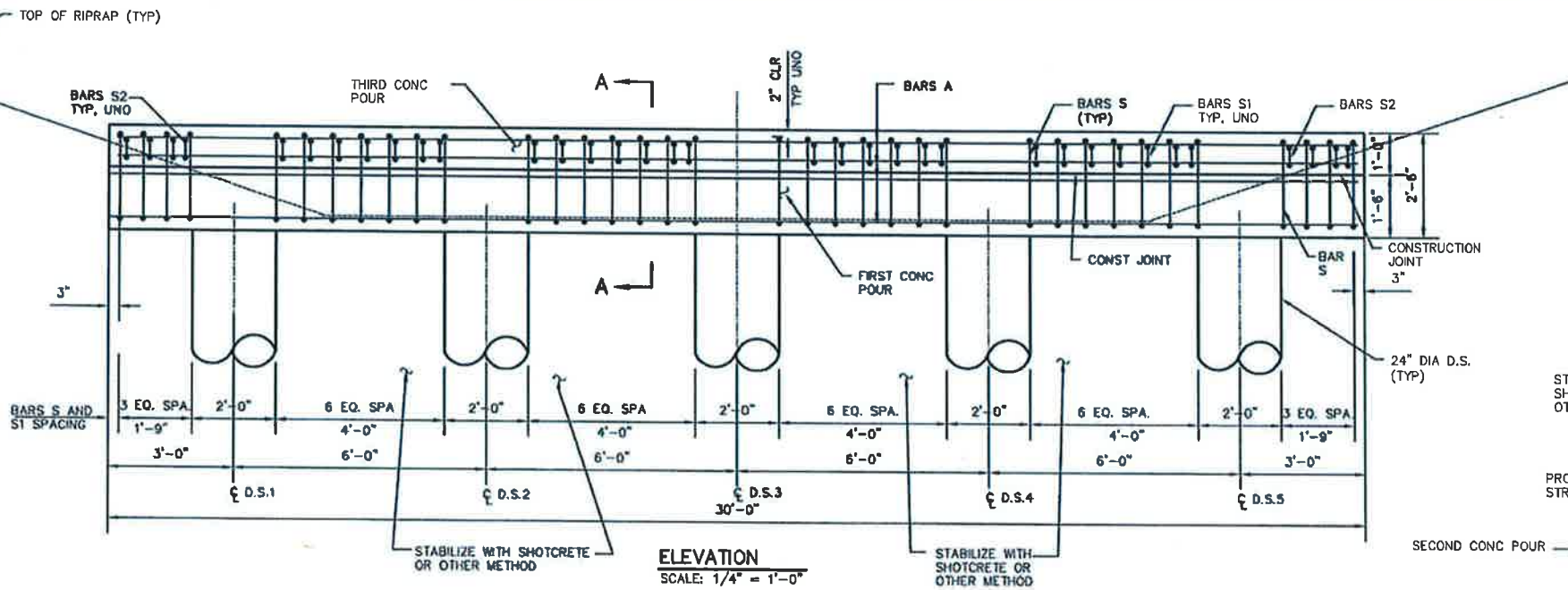
No encasement pipe around 10" san. Elec. duct bank encased in concrete @ 10' D.S.

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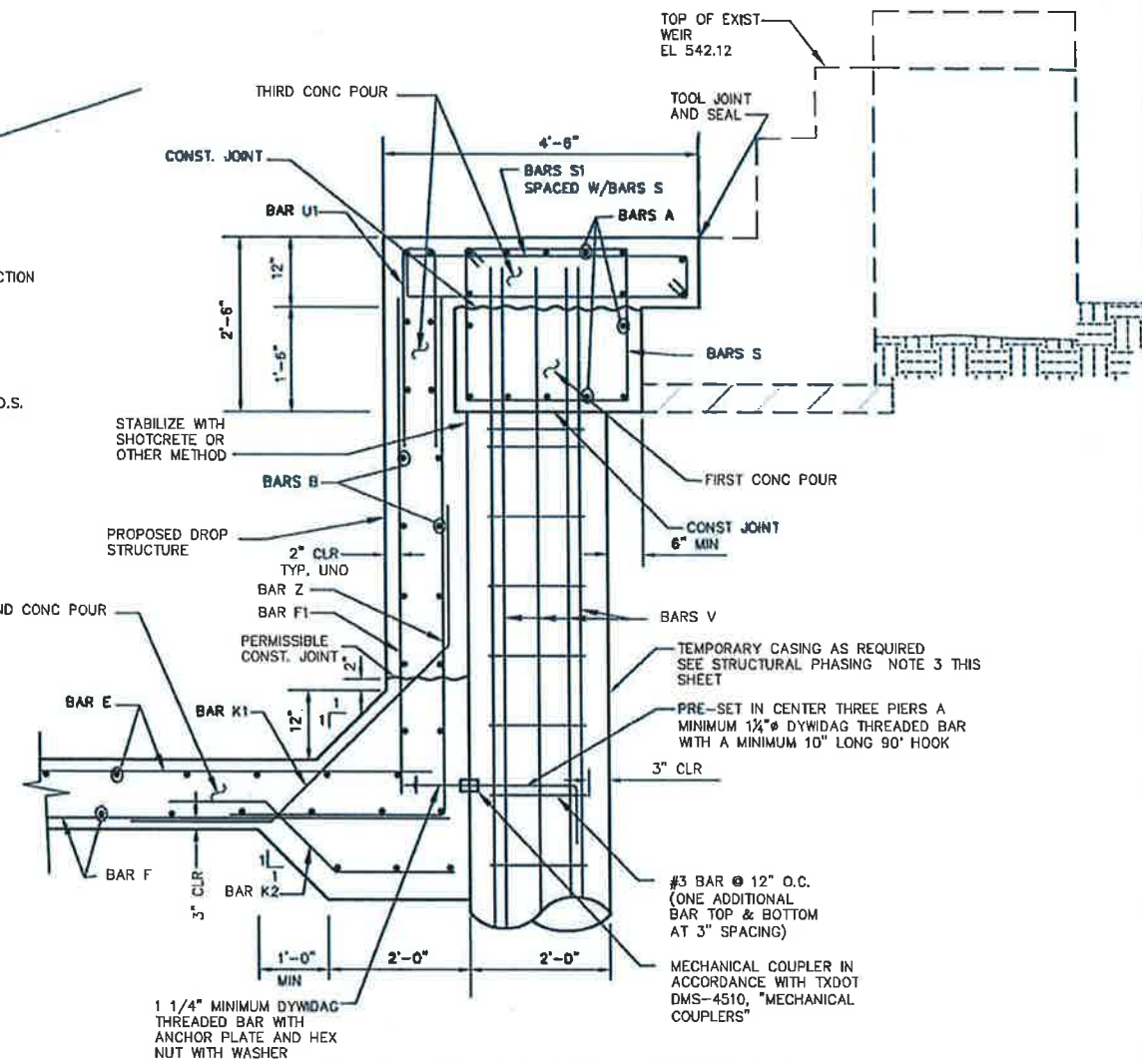
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DOWNSTREAM WEIR PLAN AND PROFILE					sheet no. 5 15
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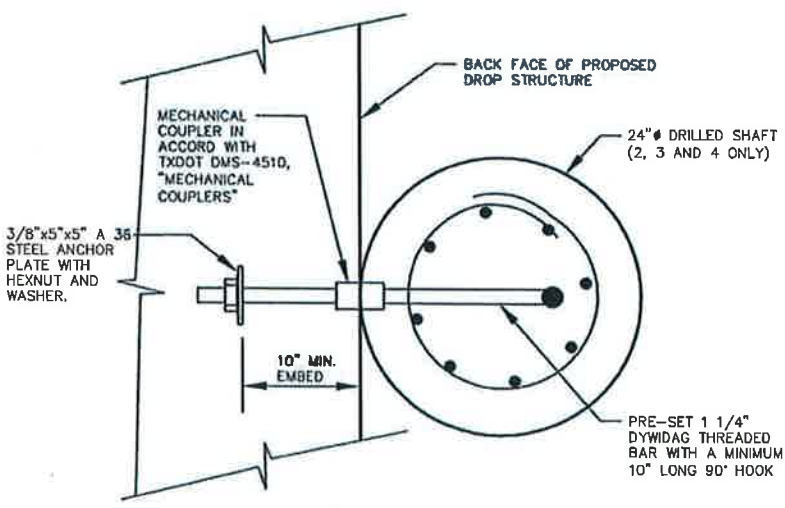
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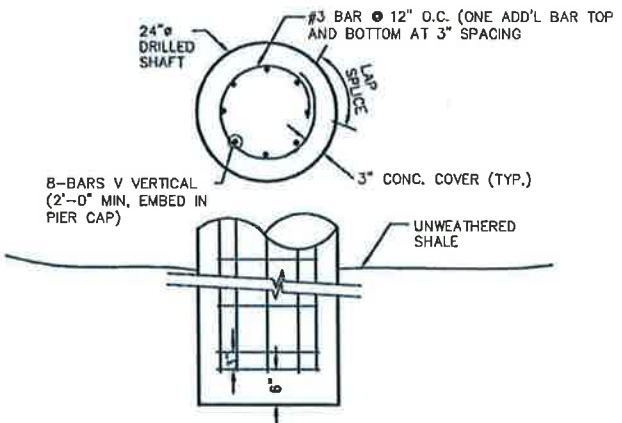
ELEVATION
SCALE: 1/4" = 1'-0"



PIER AND PIER CAP DETAIL - SECTION A-A
SCALE: 3/8" = 1'-0"



MECHANICAL ANCHOR ASSEMBLY
DETAIL AT DS. 2, 3 AND 4
SCALE: 3/4" = 1'-0"



PIER DETAIL
SCALE: 3/8" = 1'-0"

NOTES:

1. ALL CONCRETE SHALL BE CLASS C WITH A MINIMUM COMPRESSION STRENGTH OF $f_c = 3600$ PSI AT 28 DAYS.
2. ALL REINFORCING SHALL BE GRADE 60.
3. BARS CAN BE CUT AS NEEDED TO MAINTAIN A MINIMUM CONCRETE CLEAR COVER OF 3" FOR CONCRETE CAST AGAINST EARTH AND 2" CLEAR COVER OTHERWISE.
4. VERTICAL BARS V IN DRILLED SHAFTS SHALL HAVE A MINIMUM SPLICE LENGTH OF 4'-6" AND A MINIMUM EMBEDMENT OF 2'-0" INTO PIER CAP.
5. DRILLED SHAFTS SHALL PENETRATE INTO UNWEATHERED SHALE A MINIMUM OF 15'-0".
6. FOR REINFORCING DETAILS, SIZE AND SPACING SEE SHEET 7.

STRUCTURAL PHASING NOTES:

- CONSTRUCTION PHASING FOR STRUCTURAL CONCRETE:
(COMMENSURATE WITH PHASING SHOWN ON SITE MAP SHEET)
1. UPON COMPLETION OF PLACING TEMPORARY FILL MATERIAL, DRILL AND PLACE 5 PIERS AS SHOWN. CONTRACTOR SHALL USE SONOTUBE OR OTHER MEANS OF CASING AS NECESSARY IN TEMPORARY FILL AREA TO MAINTAIN SHAFT OPENING. PIERS SHALL REACH A COMPRESSIVE STRENGTH OF 2,500 PSI PRIOR TO PLACING CONCRETE PIER CAP.
 2. SET FORMS AND REINFORCING AS REQUIRED AND POUR LOWER 1'-6" OF PIER CAP SECTION AS SHOWN HEREIN AS FIRST CONCRETE POUR. CONCRETE SHALL REACH A COMPRESSIVE STRENGTH OF 2500 PSI PRIOR TO BEGINNING DEMOLITION OF EXISTING CONCRETE.
 3. EXCAVATE AND CONSTRUCT DROP STRUCTURE. CONTRACTOR SHALL MAINTAIN MATERIAL BETWEEN PIERS DURING EXCAVATION EITHER BY SHOTCRETE OR OTHER APPROVED METHOD. PLACE CONCRETE FOR FOUNDATION OF DROP STRUCTURE AS SECOND CONCRETE POUR.
 4. SET FORMS AND REINFORCING AS REQUIRED AND PLACE VERTICAL DROP WALLS AND UPPER 12" OF PIER CAP AS SHOWN HEREIN AS THIRD CONCRETE POUR.

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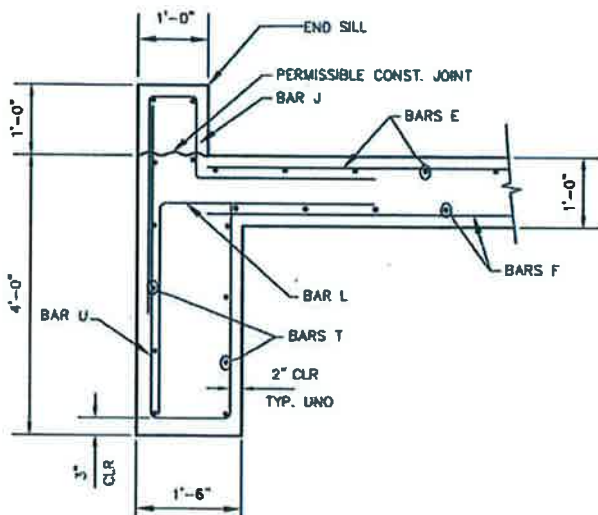
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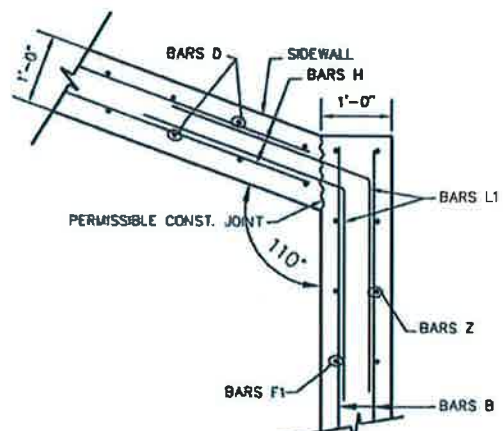
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DOWNSTREAM WEIR STRUCTURAL DETAILS					sheet no.
design	drawn	scale	date	file name	6
ADS	NDM	AS NOTED	1-27-12	ST01	15
job number					11-07-037

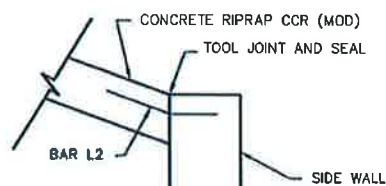
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CUTOFF WALL DETAIL
SCALE: 3/8" = 1'-0"



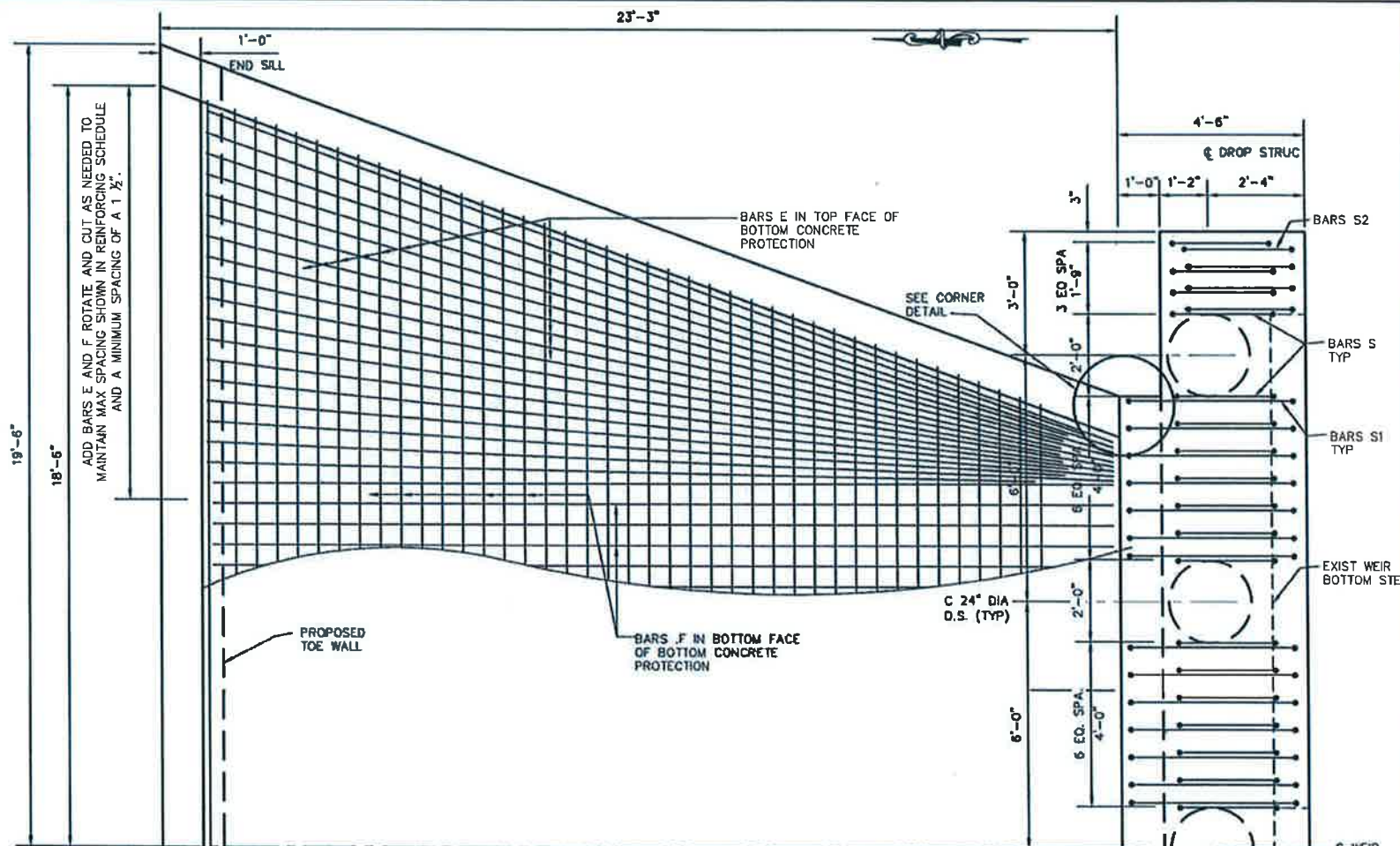
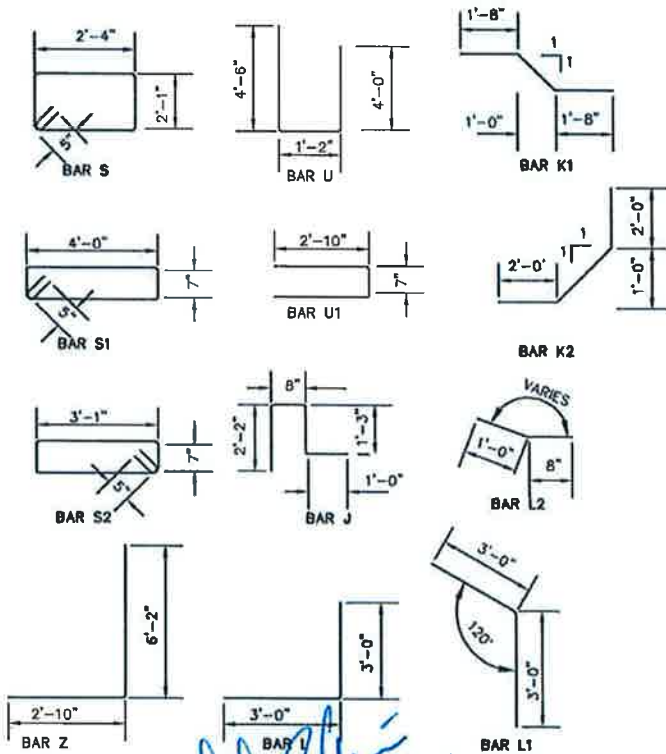
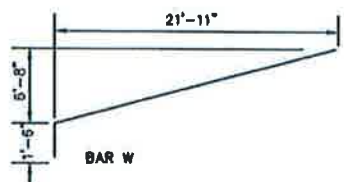
TYPICAL CORNER DETAIL
SCALE: 3/8" = 1'-0"



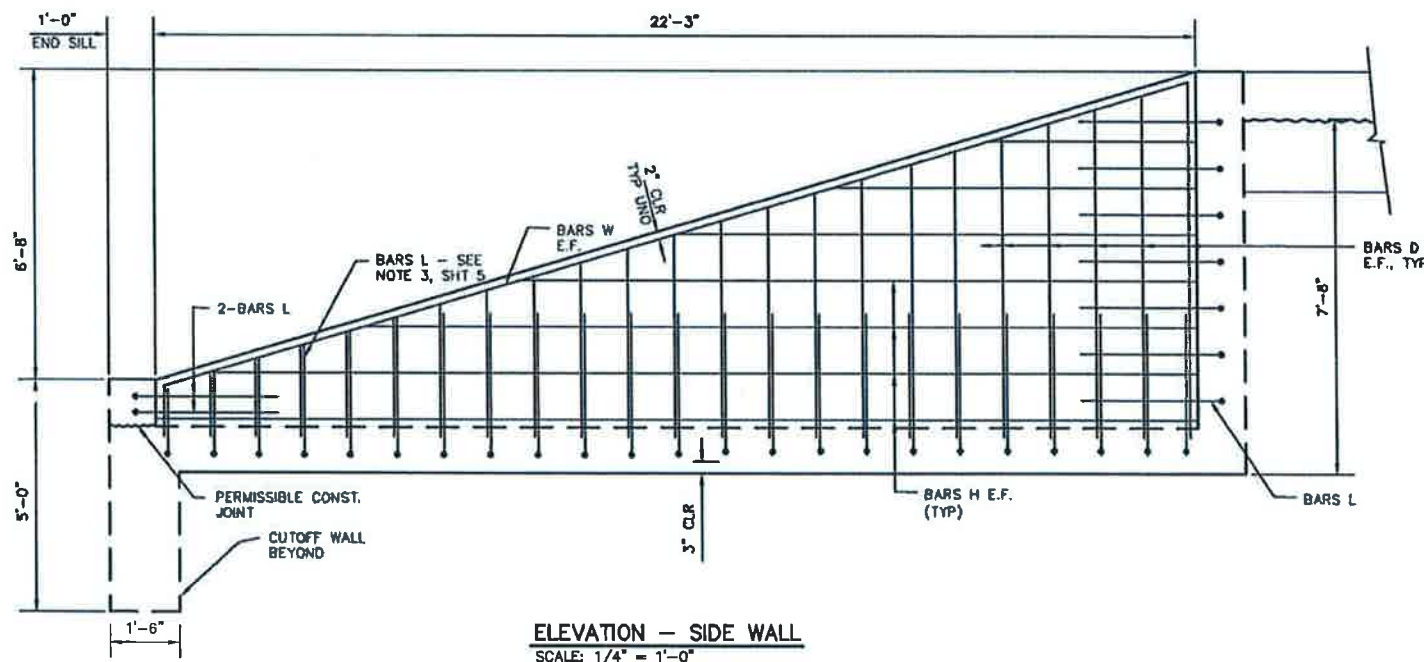
TYPICAL SIDE WALL CONNECTION DETAIL
SCALE: 3/8" = 1'-0"

REINFORCING SCHEDULE

BAR	SIZE	SPACING
A	#8	-
B	#4	12" O.C. MAX
D	#4	12" O.C. MAX
E	#8	6" O.C. MAX
F	#8	12" O.C. MAX
F1	#6	12" O.C. MAX
H	#4	12" O.C. MAX
J	#6	12" O.C. MAX
K1	#6	12" O.C. MAX
K2	#6	12" O.C. MAX
L	#5	12" O.C. MAX
L1	#6	12" O.C. MAX
L2	#4	8" O.C. MAX
S	#4	SEE ELEVATION SHT 6
S1	#4	SEE ELEVATION SHT 6
S2	#4	SEE ELEVATION SHT 6
T	#4	12" O.C. MAX
U	#6	12" O.C. MAX
U1	#6	12" O.C. MAX
V	#8	-
W	#4	12" O.C. MAX
Z	#6	12" O.C. MAX



PLAN VIEW - DROP STRUCTURE
SCALE: 1/4" = 1'-0"



ELEVATION - SIDE WALL
SCALE: 1/4" = 1'-0"

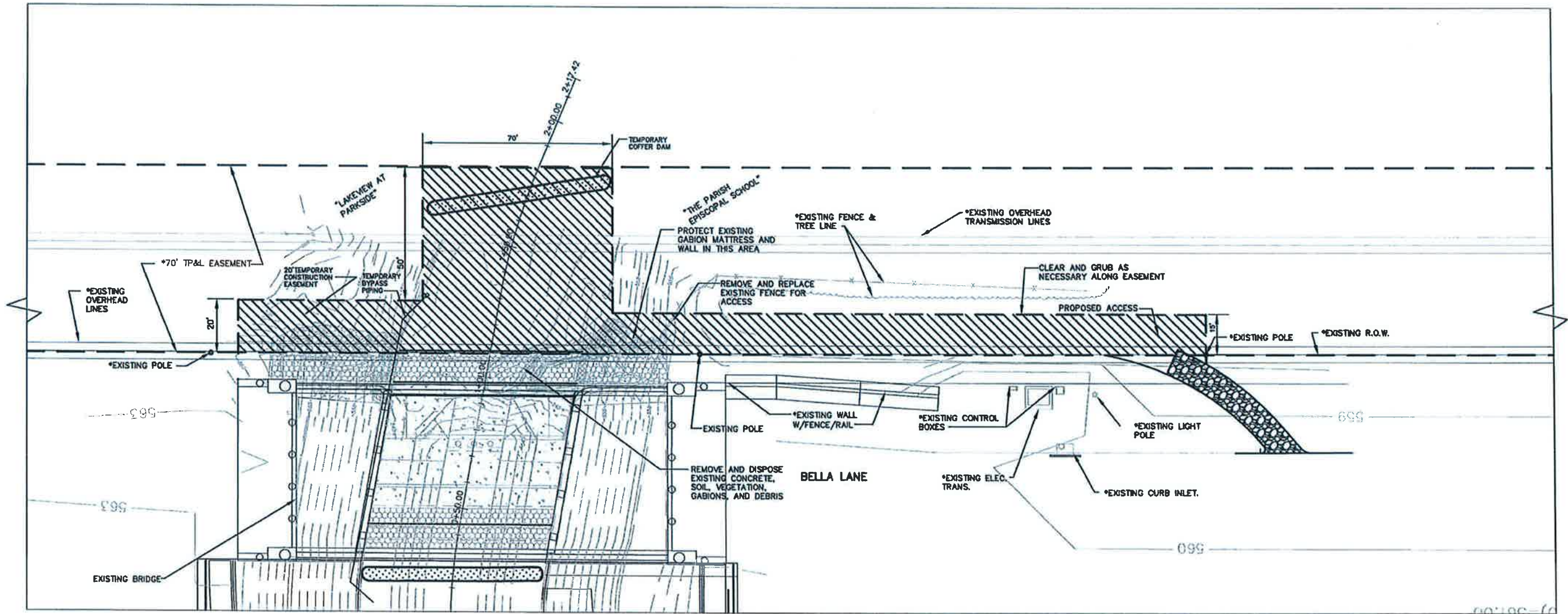
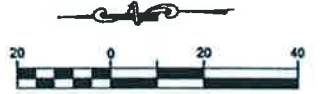


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DOWNSTREAM WEIR STRUCTURAL DETAILS					sheet no.
design	drawn	scale	date	file name	7
ADS	NDM	AS NOTED	1-27-12	ST01	15
job number					11-07-037



LEGEND

-  PROPOSED CURB INLET PROTECTION
-  PROPOSED CONSTRUCTION ENTRANCE
-  COFFER DAM
-  APPROXIMATE LOCATION
-  TEMPORARY ACCESS AND CONSTRUCTION EASEMENT

- NOTES:**
- DEWATERING MEASURES SHOWN ARE CONCEPTUAL ONLY. CONTRACTOR MUST SUBMIT A DEWATERING PLAN TO THE TOWN FOR APPROVAL PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL MAINTAIN A POSITIVE DRAINAGE ALONG ACCESS EASEMENT. GRADE AS REQUIRED AND PROVIDE TEMPORARY DRAINAGE PIPE IF NECESSARY.



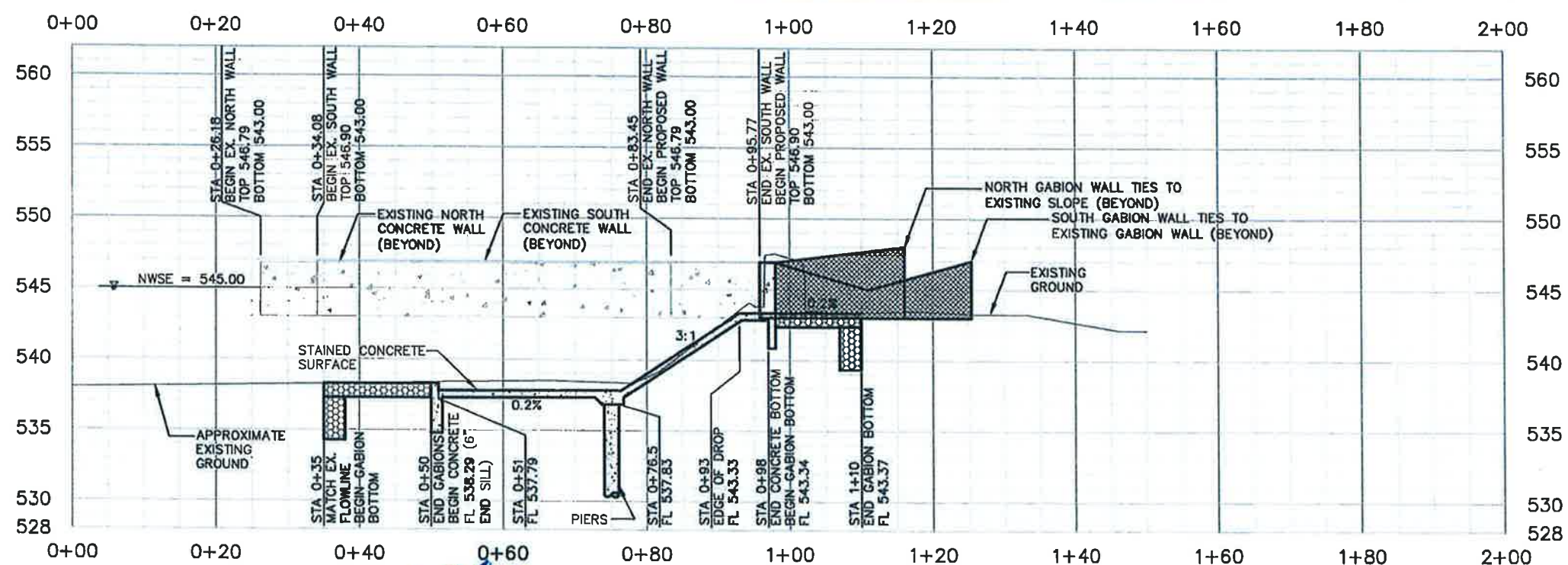
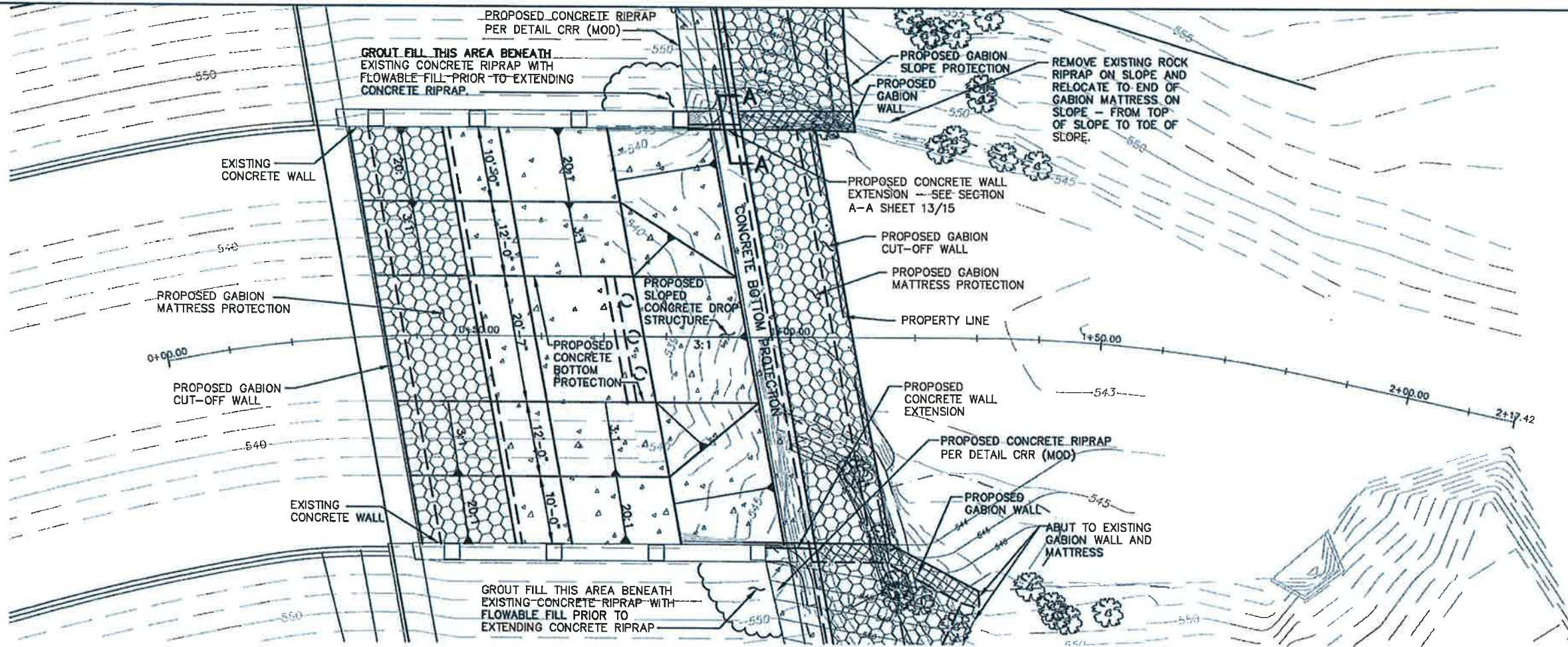
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BELLA LANE DROP STRUCTURE SITE MAP				
design	drawn	scale	date	file name
B.J.L.	NDM	AS NOTED	1-27-12	MEB-BWR

sheet no.
8 / 15
job number
11-07-037



LEGEND

- PROPOSED CONCRETE PROTECTION
- PROPOSED GABION PROTECTION
- PROPOSED GABION WALL



revisions	date

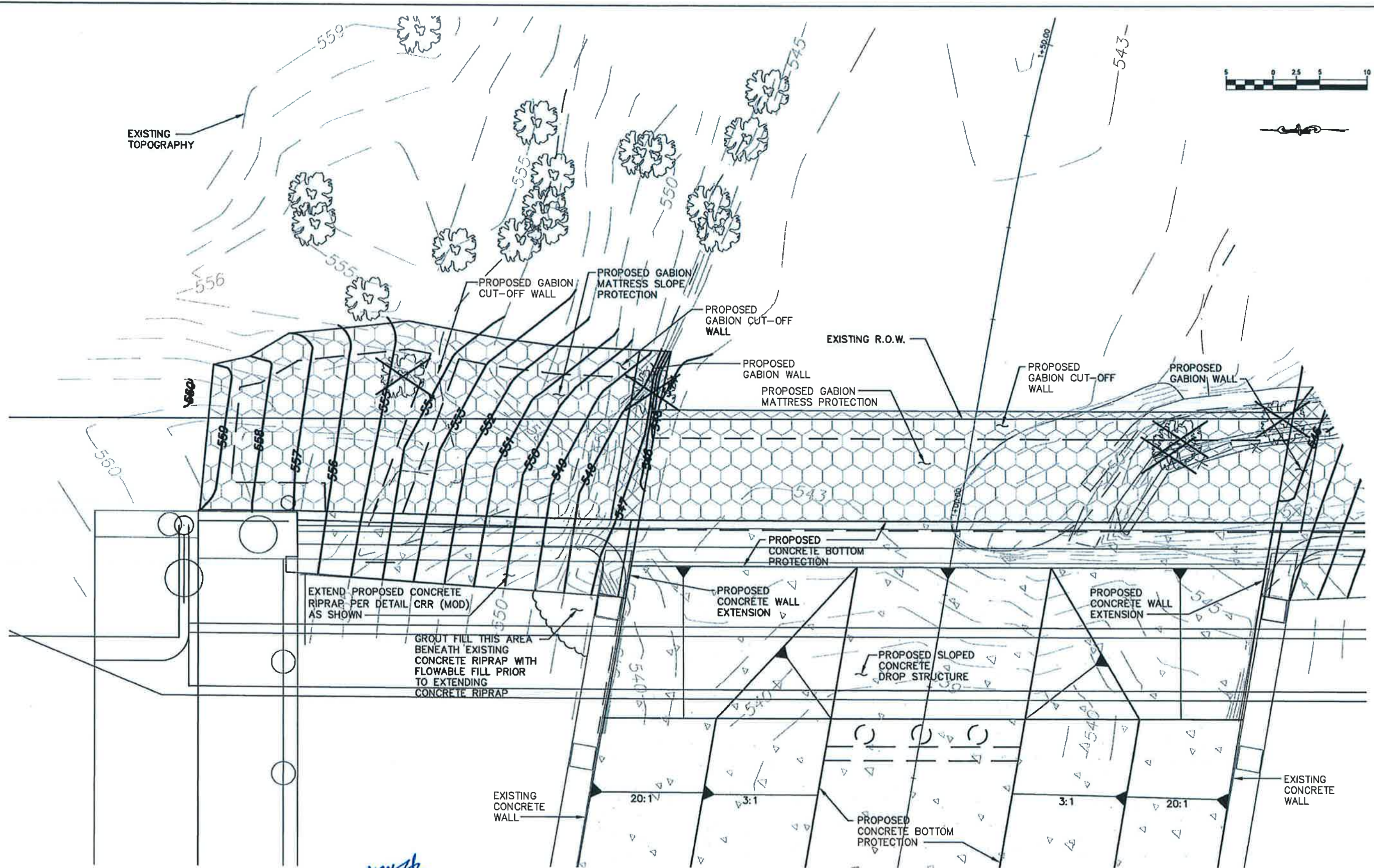
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 FIRM REGISTRATION NO.: F-356
 Two Park Lane Place / 8080 Park Lane / Suite 600
 Dallas, Texas 75231 / (214) 739-4741

**SLOPE PROTECTION/DROP STRUCTURE
 AT BELLA LANE VEHICULAR BRIDGE
 AND
 STABILIZATION AT THE DOWNSTREAM
 WEIR
 VITRUVIAN PARK
 TOWN OF ADDISON, TEXAS**



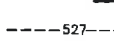
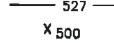


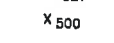
BELLA LANE DROP STRUCTURE PLAN AND PROFILE					sheet no.
design	drawn	scale	date	file name	9 / 15
JML	NDM	AS NOTED	1-27-12	DP02	
					job number
					11-07-037



EXISTING TOPOGRAPHY



LEGEND

-  PROPOSED CONCRETE PROTECTION
-  PROPOSED GABION PROTECTION
-  527 EXISTING CONTOURS
-  527 PROPOSED CONTOURS
-  EXISTING TREE REMOVAL
-  EXISTING TREE TO REMAIN
-  X 500 PROPOSED GRADE

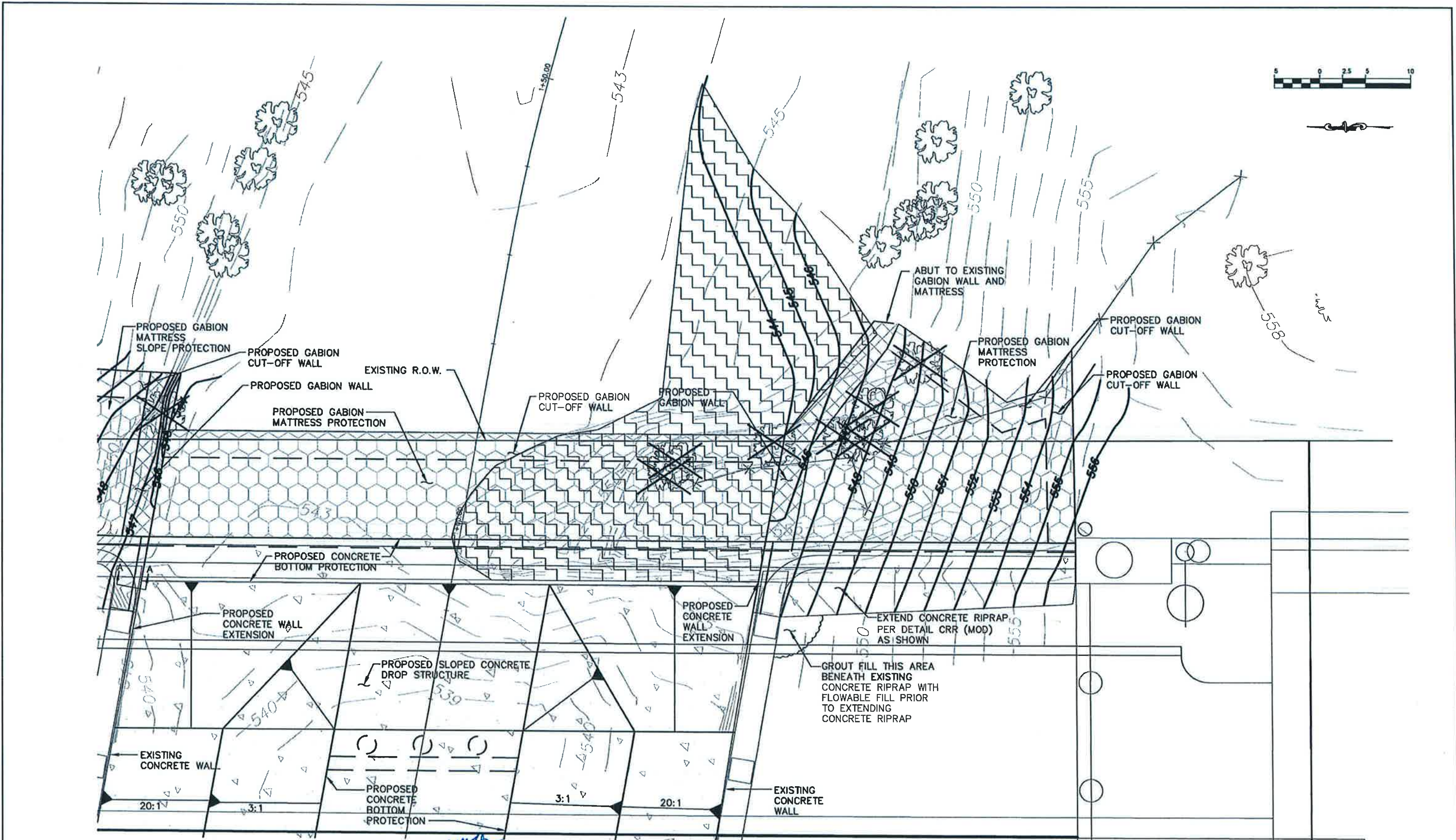


revision	date

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**SLOPE PROTECTION/DROP STRUCTURE
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 WEIR
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 TOWN OF ADDISON, TEXAS**

BELLA LANE DROP STRUCTURE GRADING PLAN - NORTH					sheet no.
design	drawn	scale	date	file name	10
JML	NDM	AS NOTED	1-27-12	DP01	15
					job number
					11-07-037



LEGEND

- | | | | | | |
|--|---|--|-------------------|--|-------------------------|
| | PROPOSED CONCRETE PROTECTION | | EXISTING CONTOURS | | EXISTING TREE REMOVAL |
| | PROPOSED GABION PROTECTION | | PROPOSED CONTOURS | | EXISTING TREE TO REMAIN |
| | REMOVE AND DISPOSE EXISTING CONCRETE, SOIL, VEGETATION, GABIONS, AND DEBRIS | | PROPOSED GRADE | | |

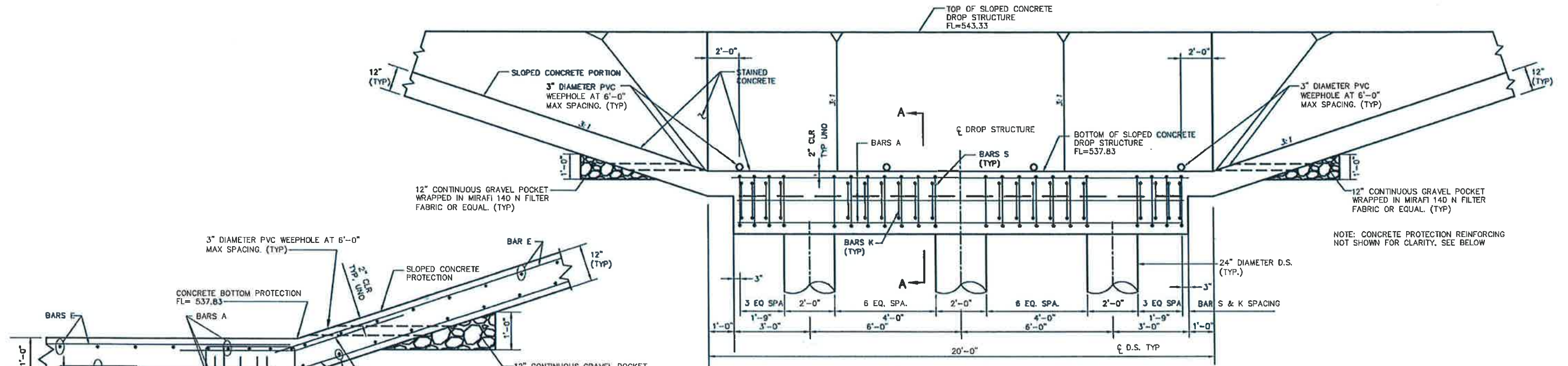


revision	date

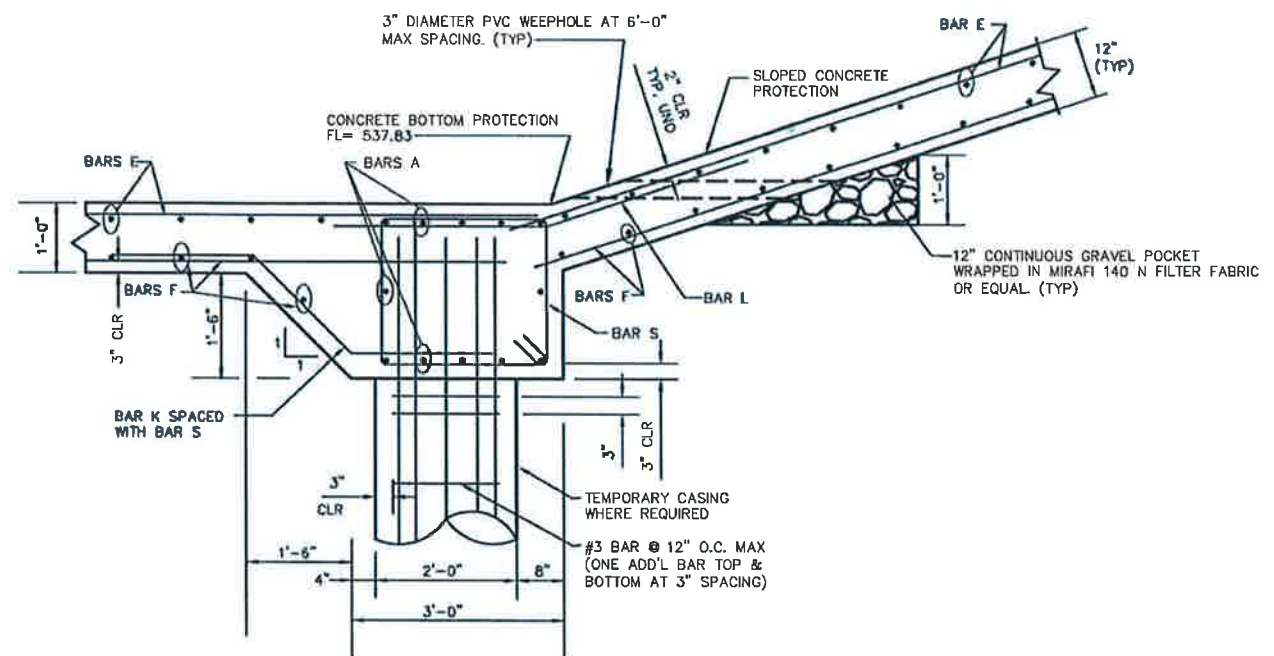
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**SLOPE PROTECTION/DROP STRUCTURE
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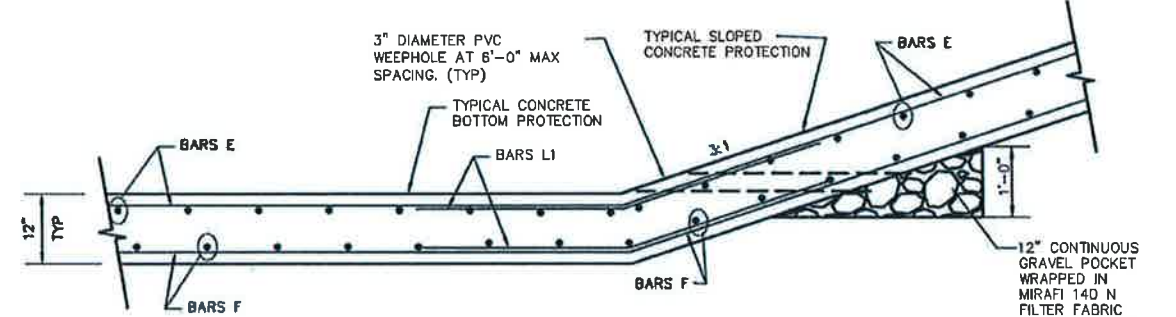
BELLA LANE DROP STRUCTURE GRADING PLAN - SOUTH					sheet no.
design	drawn	scale	date	file name	11 / 15
JML	NDM	AS NOTED	1-27-12	DP01	job number 11-07-037



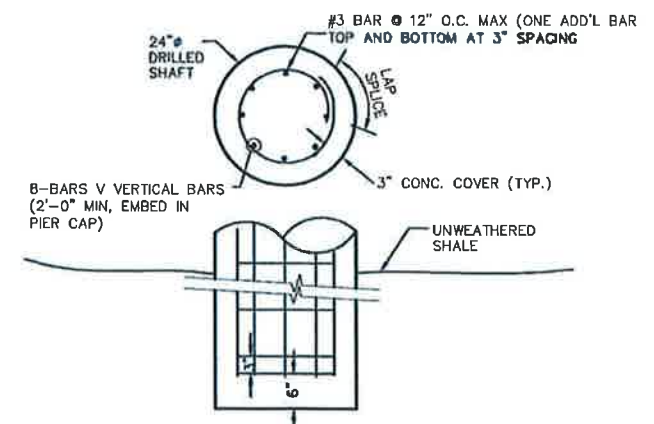
DROP STRUCTURE ELEVATION
SCALE: 1/4" = 1'-0"



DROP STRUCTURE SECTION A-A
SCALE: 3/8" = 1'-0"



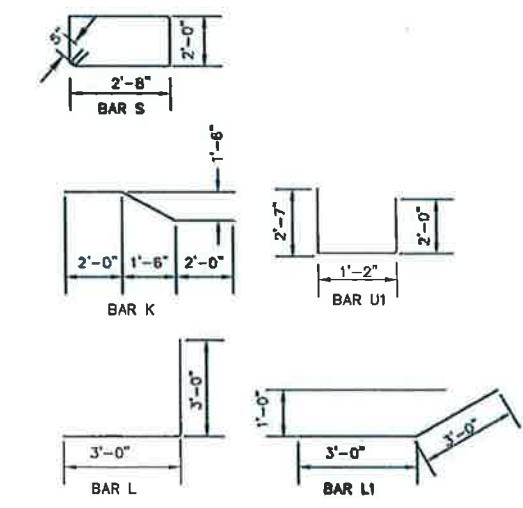
TYPICAL CONCRETE PROTECTION DETAIL
SCALE: 3/8" = 1'-0"



PIER DETAIL
SCALE: 3/8" = 1'-0"

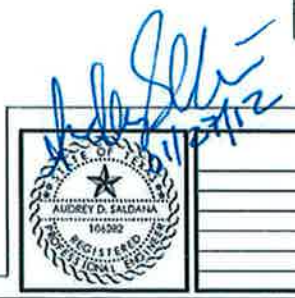
REINFORCING SCHEDULE

BAR	SIZE	SPACING
A	#6	-
B	#4	12" O.C. MAX
E	#8	12" O.C. MAX
F	#6	12" O.C. MAX
K	#6	12" O.C. MAX
L	#6	12" O.C. MAX
L1	#6	12" O.C. MAX
S	#4	SEE ELEVATION
T	#4	12" O.C. MAX
U1	#6	12" O.C. MAX
V	#6	-



NOTES:

1. ALL CONCRETE SHALL BE CLASS C WITH A MINIMUM COMPRESSION STRENGTH OF $f_c = 3600$ PSI AT 28 DAYS.
2. ALL REINFORCING SHALL BE GRADE 60.
3. BARS CAN BE CUT AS NEEDED TO REMAIN A MINIMUM CONCRETE CLEAR COVER OF 3" FOR CONCRETE CAST AGAINST EARTH AND 2" CLEAR COVER OTHERWISE.
4. VERTICAL BARS V IN DRILLED SHAFTS SHALL HAVE A MINIMUM SPLICE LENGTH OF 4'-6" AND A MINIMUM EMBEDMENT OF 2'-0" INTO PIER CAP.
5. DRILLED SHAFTS SHALL PENETRATE INTO UNWEATHERED SHALE A MINIMUM OF 14'-0".
6. CONTRACTOR SHALL USE CASING AS NECESSARY.



revisions	date

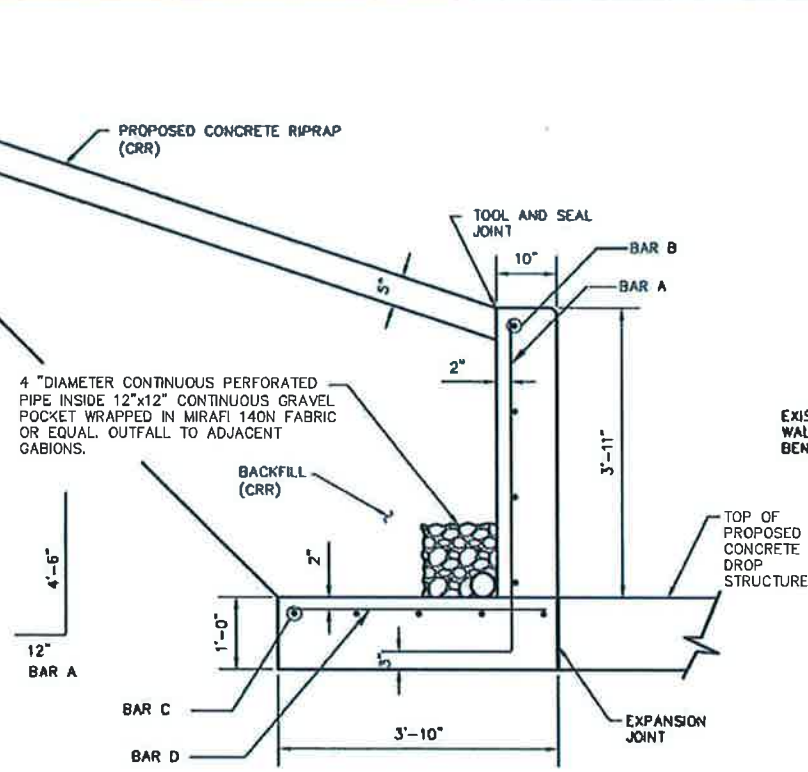
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SLOPE PROTECTION/DROP STRUCTURE AT BELLA LANE VEHICULAR BRIDGE AND STABILIZATION AT THE DOWNSTREAM WEIR
VITRUVIAN PARK
TOWN OF ADDISON, TEXAS

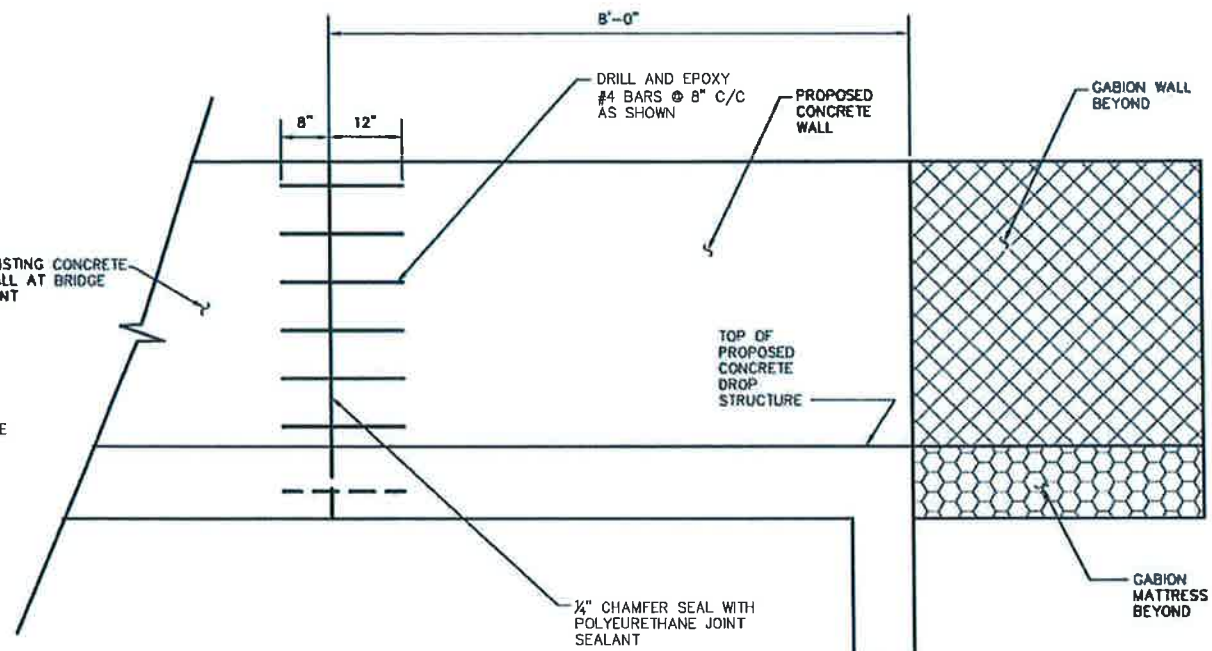
BELLA LANE DROP STRUCTURE STRUCTURAL DETAILS					sheet no. 12 15
design	drawn	scale	date	file name	job number
ADS	NDM	AS NOTED	1-27-12	DETAILS	11-07-037

REINFORCING SCHEDULE

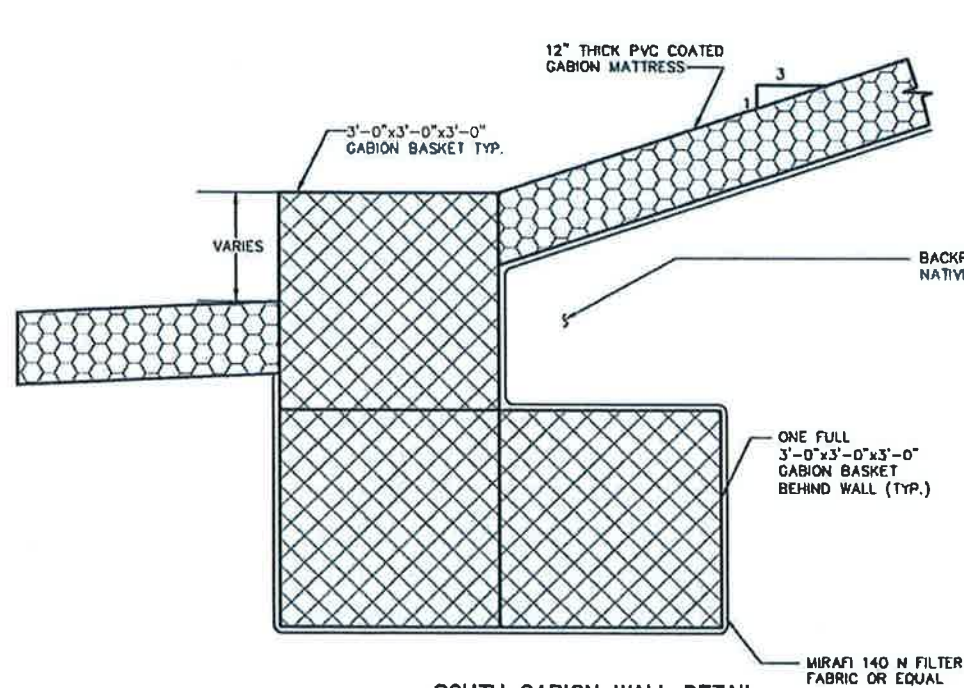
BAR	SIZE	SPACING
A	#5	9"
B	#4	8"
C	#4	8"
D	#5	9"



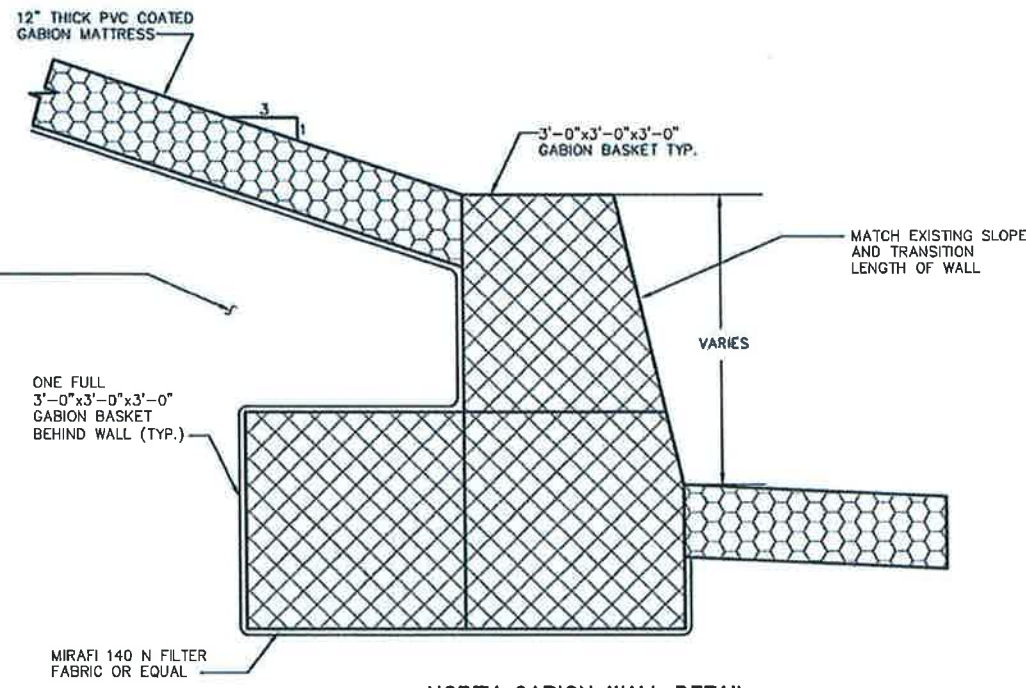
SECTION A-A - TYPICAL END WALL DETAIL
SCALE: 3/8" = 1'-0"
SEE SHEET 10 OF 13 FOR PLAN VIEW



TYPICAL END WALL CONNECTION DETAIL
SCALE: 3/8" = 1'-0"



SOUTH GABION WALL DETAIL
SCALE: 3/8" = 1'-0"

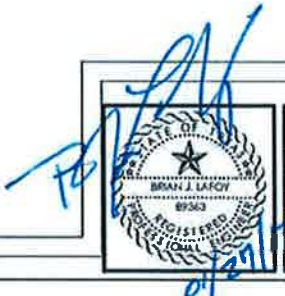


NORTH GABION WALL DETAIL
SCALE: 3/8" = 1'-0"

LEGEND

	PVC COATED GABION BASKET
	PVC COATED GABION MATTRESS

NOTE:
GABION WALLS TRANSITION IN HEIGHT AS SHOWN ON GRADING SHEETS BUT MUST ALWAYS MAINTAIN A MINIMUM HEIGHT OF 1.5 FULL BASKETS ADJUST ELEVATION OF FIGURE AS NECESSARY



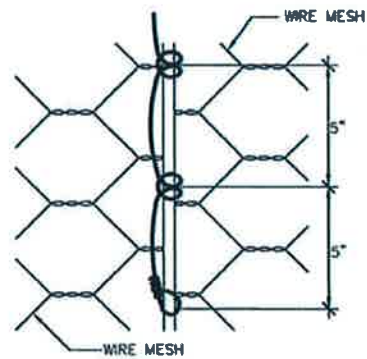
revisions	date

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SLOPE PROTECTION/DROP STRUCTURE AT BELLA LANE VEHICULAR BRIDGE AND STABILIZATION AT THE DOWNSTREAM WEIR
VITRUVIAN PARK
TOWN OF ADDISON, TEXAS

BELLA LANE DROP STRUCTURE STRUCTURAL DETAILS				
design	drawn	scale	date	file name
BJL	NDM	AS NOTED	1-27-12	DETAILS

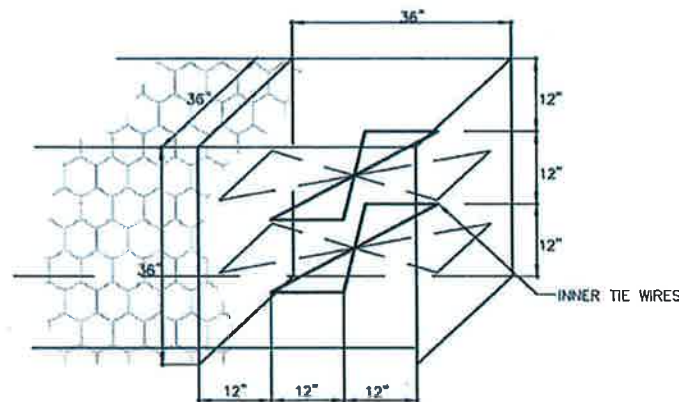
sheet no.	job number
13 15	11-07-037



GABIONS MUST BE TIED IN THIS MANNER AT EACH STEP OF CONSTRUCTION:

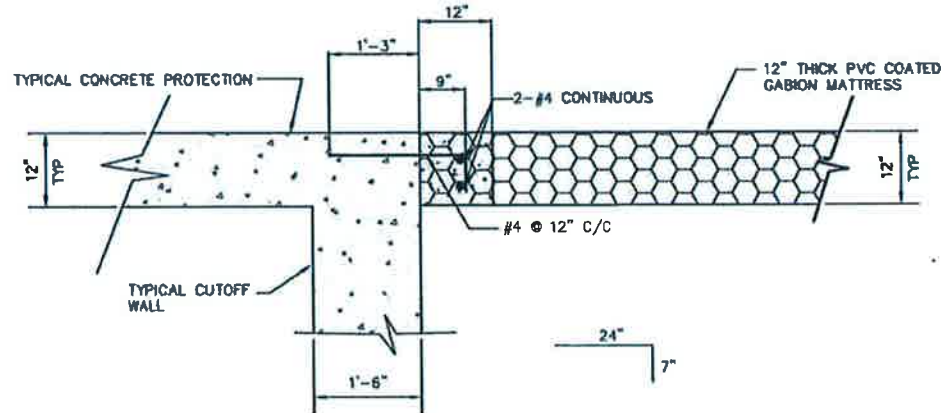
1. INITIAL ASSEMBLY
2. TYING TO ADJACENT GABIONS ALONG ALL CONTACTING EDGES
3. TYING OF LID TO SIDES
4. TYING OF LID TO ALL DIAPHRAGMS
5. RE-TYING OF THE CUT GABION

FIGURE 1: TYING METHOD
NTS



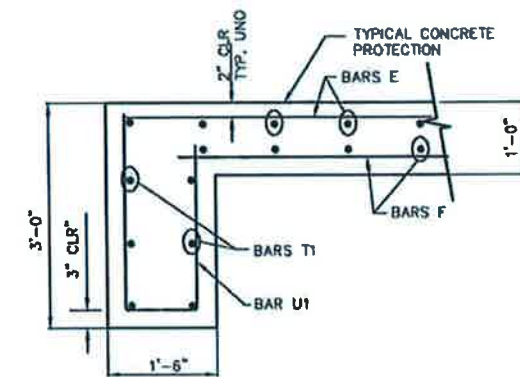
INNER TIE WIRES SHALL BE PLACED HORIZONTALLY IN EACH CELL EVERY 12" OF VERTICAL HEIGHT CONNECTING THE FRONT AND BACK FACES AND ANY UNSUPPORTED FACE LENGTHWISE.

FIGURE 2: TIE WIRE INSTALLATION METHOD
SCALE: 3/8" = 1'-0"

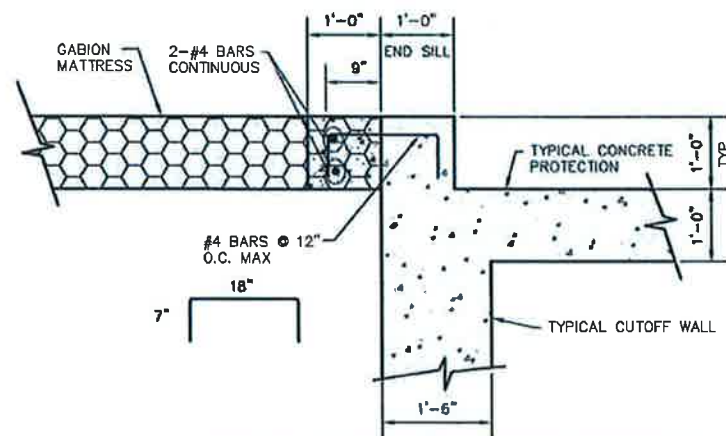


**TYPICAL CONCRETE PROTECTION/
GABION MATTRESS CONNECTION DETAIL**
SCALE: 3/8" = 1'-0"

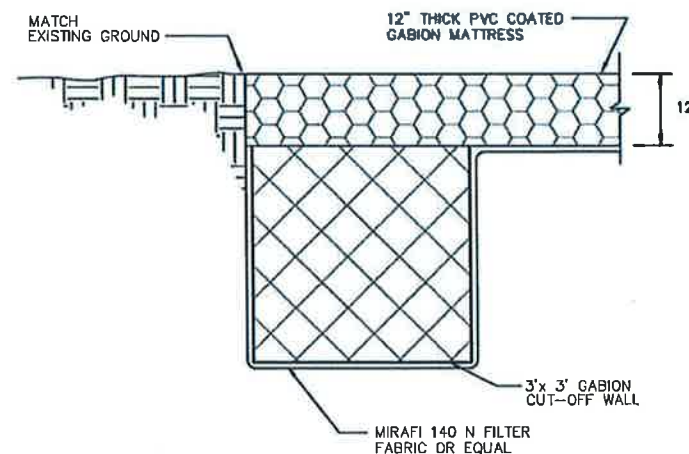
NOTE:
ALL CONTACT AREAS BETWEEN CONCRETE AND MATTRESS SHALL RECEIVE CONNECTION PER THIS DETAIL.



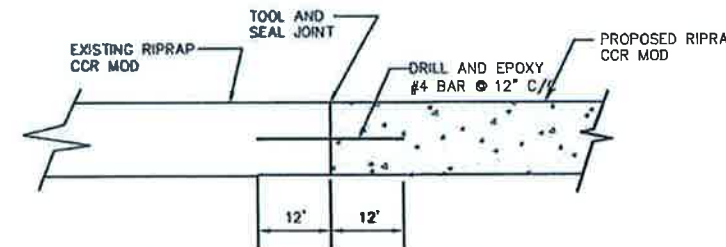
**TYPICAL CUTOFF WALL
AT BELLA DROP STRUCTURE**
SCALE: 3/8" = 1'-0"



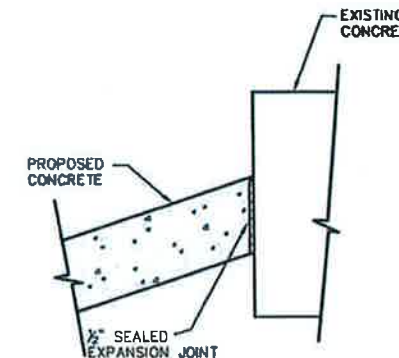
**GABION MATTRESS/CONCRETE PROTECTION
WITH END SILL CONNECTION DETAIL**
SCALE: 3/8" = 1'-0"



TYPICAL GABION CUT OFF DETAIL
SCALE: 3/8" = 1'-0"



CONCRETE RIPRAP CONNECTION DETAIL
SCALE: 3/8" = 1'-0"



**TYPICAL PROPOSED CONCRETE TO
EXISTING CONCRETE DETAIL**
SCALE: 3/8" = 1'-0"



rev/notes	date

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**SLOPE PROTECTION/DROP STRUCTURE
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AND
STABILIZATION AT THE DOWNSTREAM
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TOWN OF ADDISON, TEXAS**

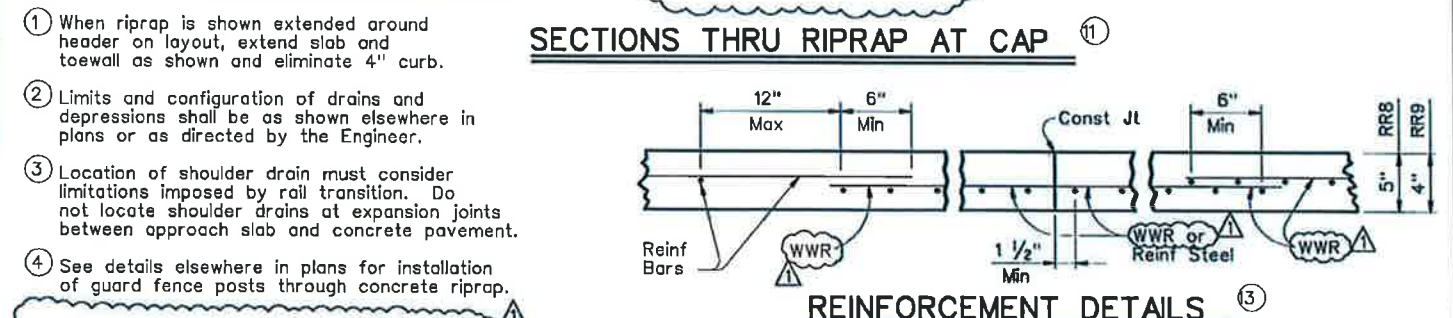
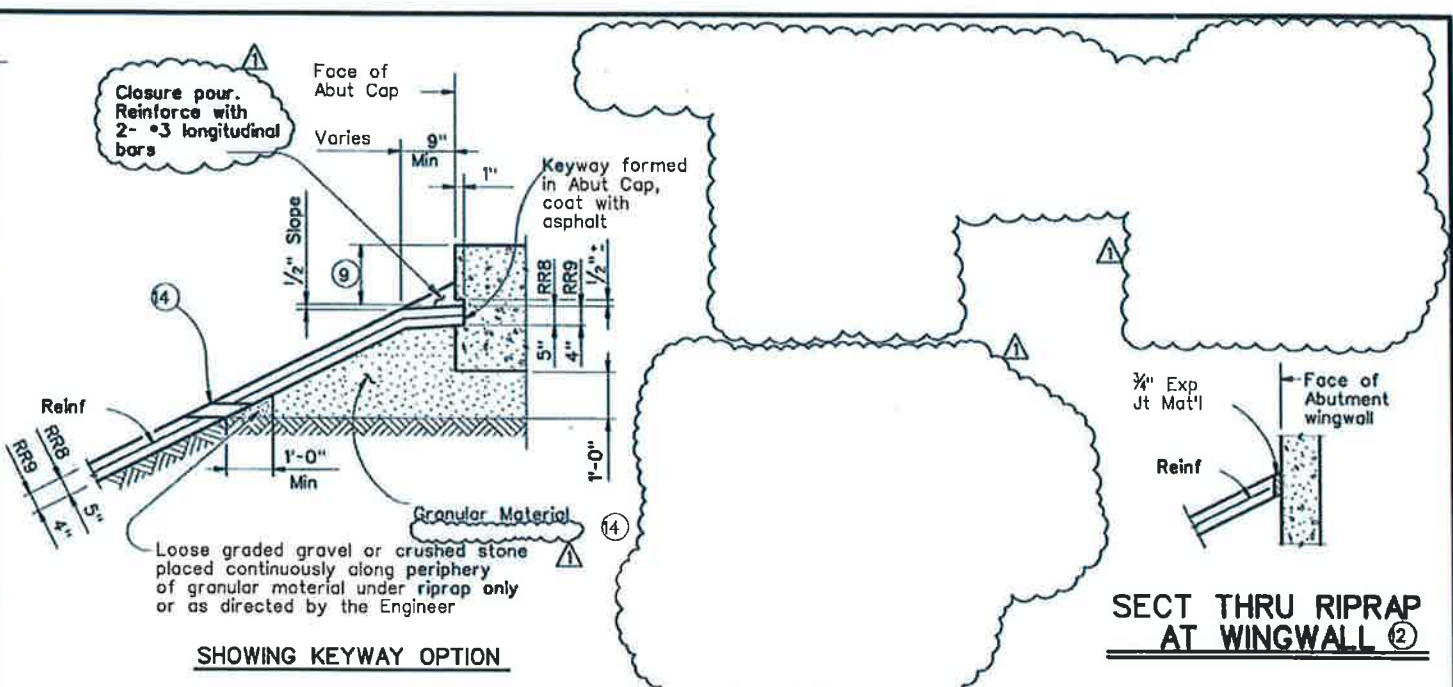
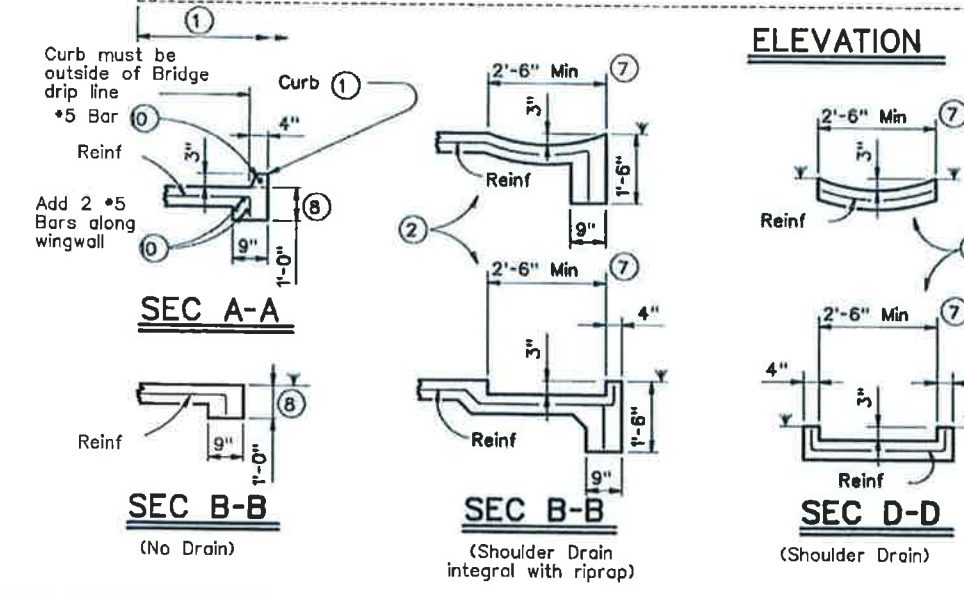
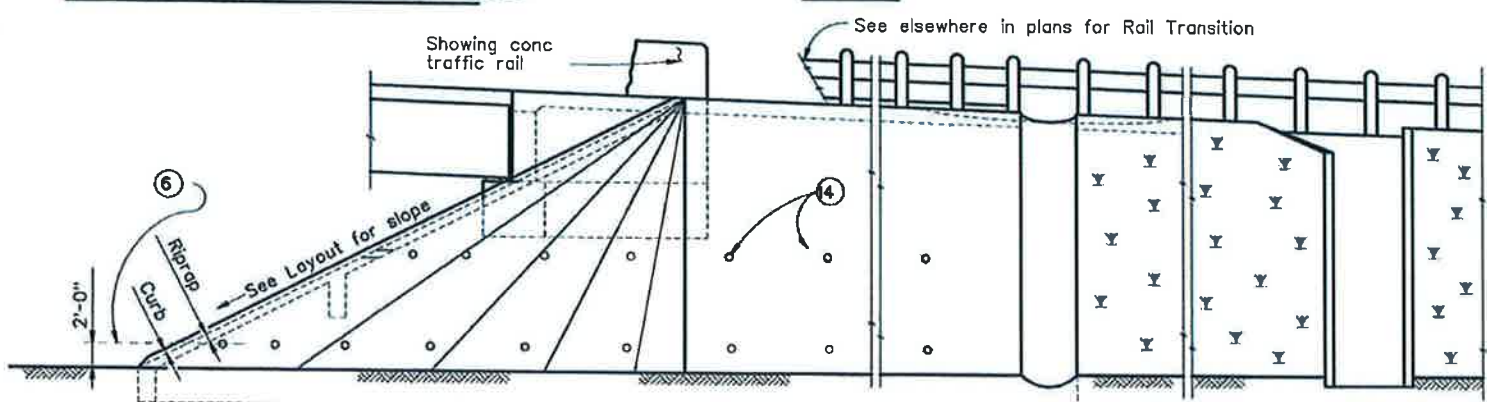
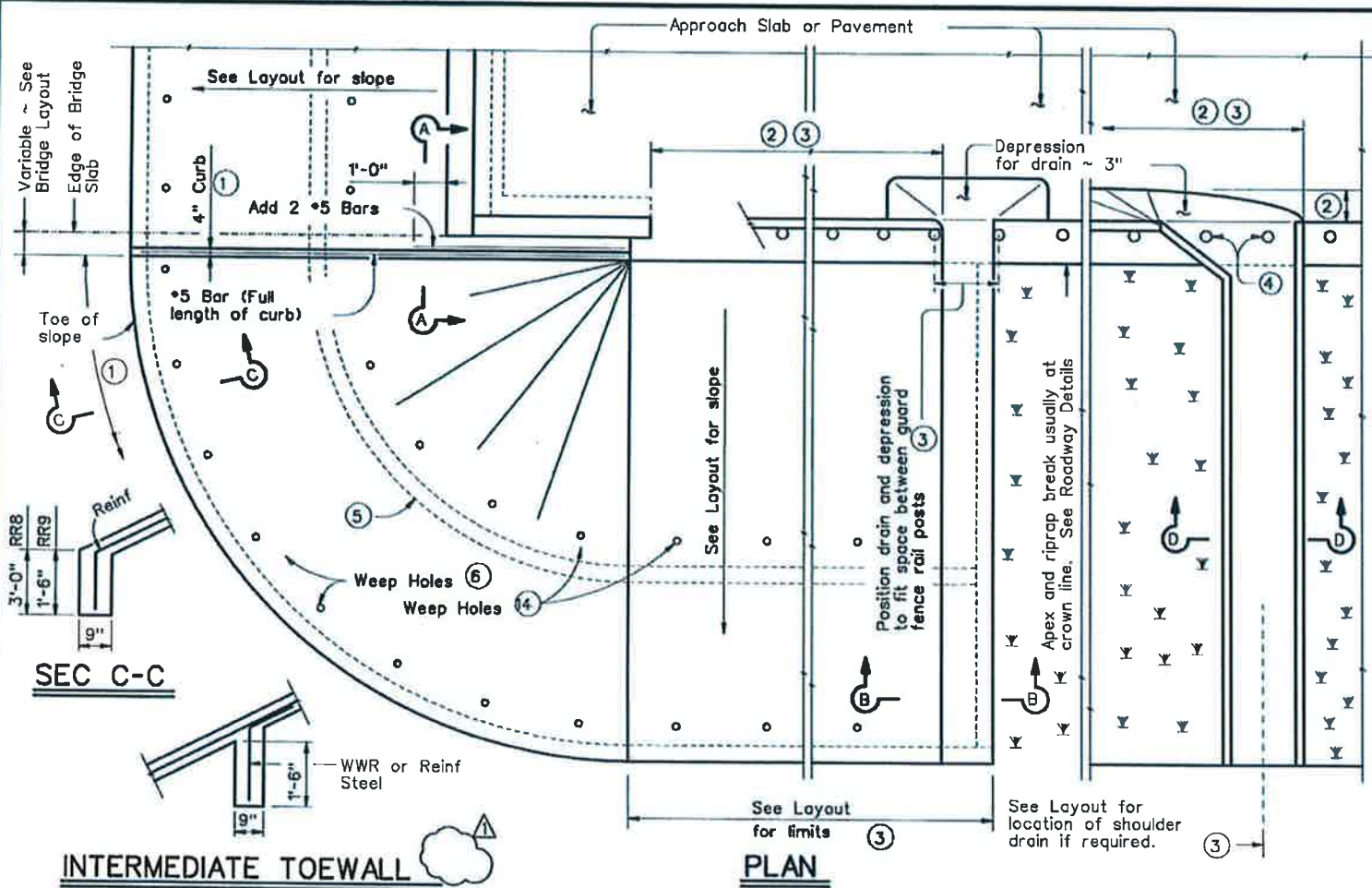
GENERAL DETAILS				
design	drawn	scale	date	file name
B.J.L.	NDM	AS NOTED	1-27-12	DETAILS

sheet no.
14
15

job number
11-07-037

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LEVELS DISPLAYED
 PATH:
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63



- When riprap is shown extended around header on layout, extend slab and toewall as shown and eliminate 4" curb.
- Limits and configuration of drains and depressions shall be as shown elsewhere in plans or as directed by the Engineer.
- Location of shoulder drain must consider limitations imposed by rail transition. Do not locate shoulder drains at expansion joints between approach slab and concrete pavement.
- See details elsewhere in plans for installation of guard fence posts through concrete riprap.
- Provide lower level of 2" Dia weep holes at 10' c-c backed by 1 CF packet of gravel and galvanized hardware cloth at all locations unless directed by the Engineer to eliminate.
- Wider or other drain configurations shall be used if shown elsewhere in plans or if directed by the Engineer.
- Wall extension may be reduced or modified if approved by the Engineer. Wall extension shall be increased to 1'-6" whenever the optional intermediate toewall is called for in the plans.
- Top of cap to top of riprap dimension varies as directed by the Engineer. Should be 9" Min for beam/slab type bridges and 1'-6" for slab span, box beam, or slab beam bridges.
- #5 bars shown are required even when synthetic fiber reinforcing option is selected.
- The sealing option of the joint between the face of cap and riprap shall be as designated by the Engineer or as shown elsewhere on plans.
- Flashing (shown in Cap Option A) may be used at wingwall in addition to Exp Jt Mat'l if shown on plans or directed by the Engineer.
- Reinforcing bars shall be #3 at 18" Spa c-c. Lap splices shall be a minimum of 6 inches, measured from the ends of reinforcing bars.
- Provide upper level of 2" Dia weep holes at 10' c-c backed by galvanized hardware cloth.

GENERAL NOTES:
 Concrete shall be Class "B" with a minimum compressive strength of 2,000 psi unless noted elsewhere in plans.
 All reinforcing steel shall be Grade 60.
 Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.
 Construction joints or grooved joints extending the full slant slope height shall be at intervals of approximately 20 feet unless otherwise directed by the Engineer.
 Hardware cloth, loose graded stone behind weep holes, flashing, or other sealing material shall not be paid for directly but shall be subsidiary to the bid item "Riprap".
 Unless specified elsewhere in the plans to be only reinforcing bars, the riprap reinforcing may be composed of reinforcing bars, Welded Wire Reinforcement (WWR), or any suitable combination of both types.
 See Layout for limits of riprap.
 RR8 is to be used on stream crossings.
 RR9 is to be used on other embankments.

FOR CONTRACTOR'S INFORMATION ONLY:
 5" of RR8 = 0.015 CY/SF
 4" of RR9 = 0.012 CY/SF
 #3 Reinf at 18" c-c = 0.501 Lbs/SF
 6X6-W2.9XW2.9 = 0.394 Lbs/SF

REMOVED NON-APPLICABLE INFORMATION

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 COUNTY: CONTROL SECT: JOB: HIGHWAY:
 15/15

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 FIRM REGISTRATION NO.: F-355

Texas Department of Transportation
 Bridge Division
CONCRETE RIPRAP AND SHOULDER DRAINS EMBANKMENTS AT BRIDGE ENDS (TYPES RR8 & RR9)
 CRR (MOD)