

SABINE RIVER AUTHORITY OF TEXAS



CONSTRUCTION DRAWINGS FOR IRON BRIDGE DAM ROCK RIPRAP REPAIR

RFB #23-0302

FEBRUARY 2023



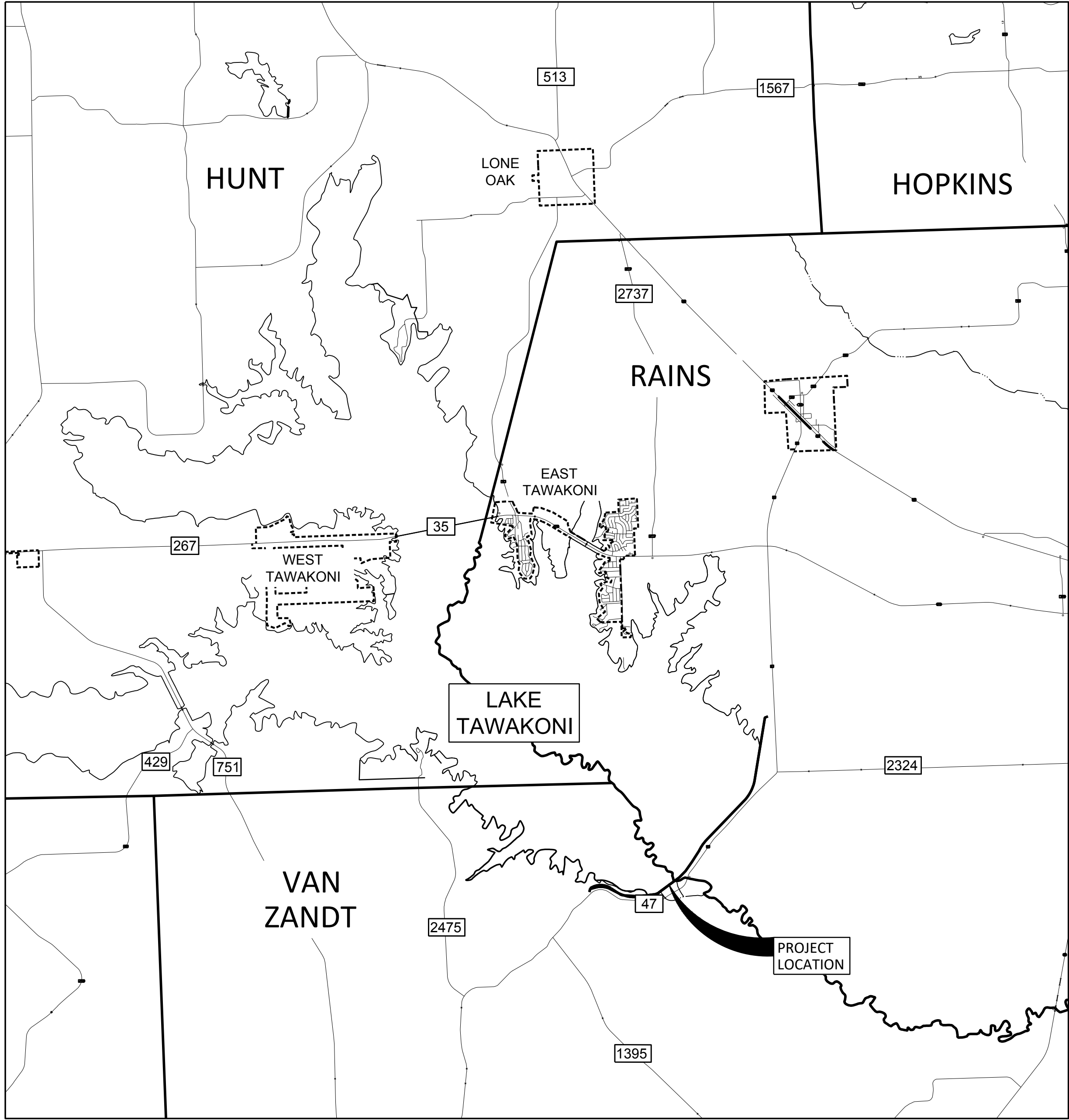
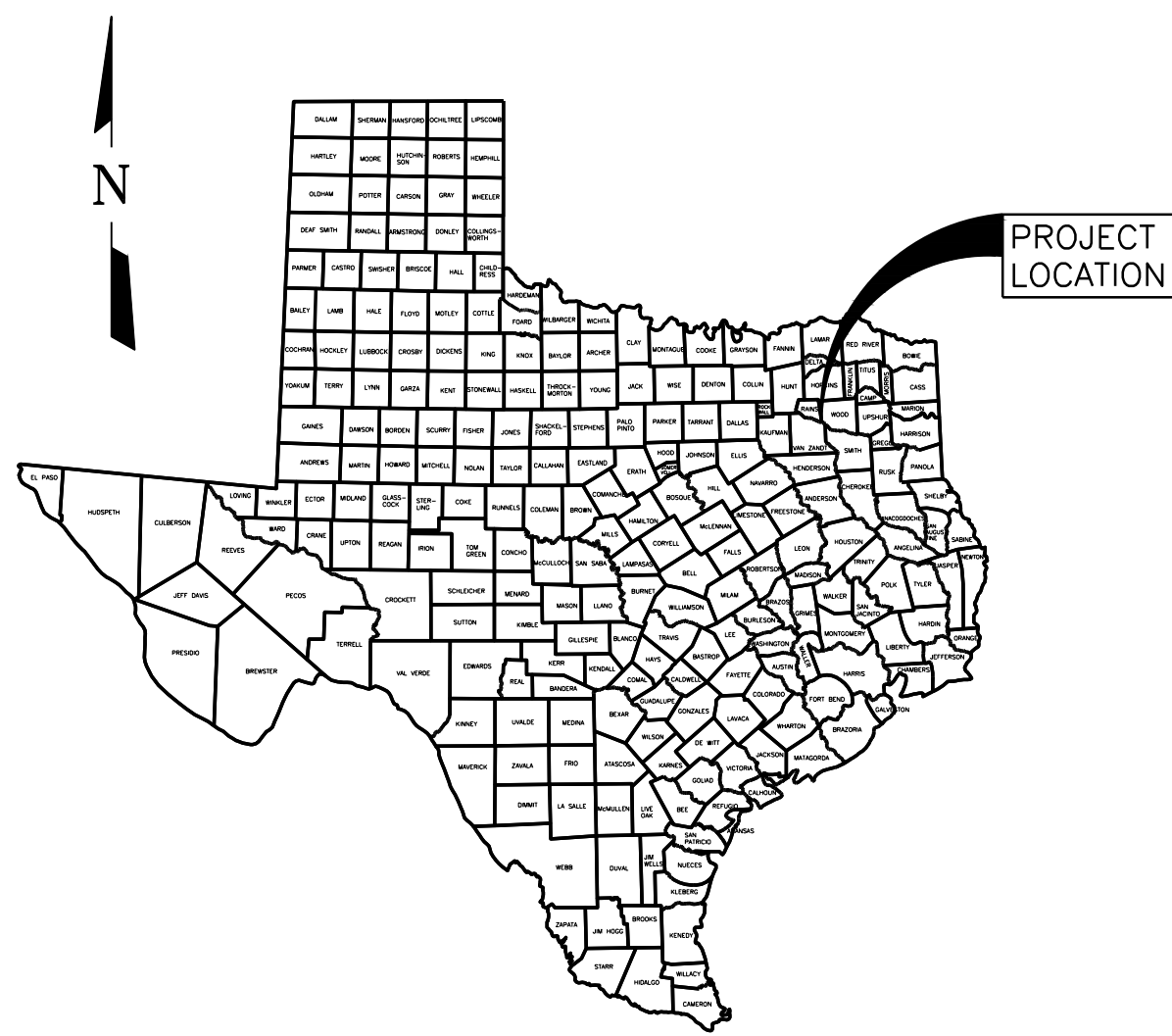
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SHEET 1 OF 6

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

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VICINITY MAP

N.T.S.

SHEET LIST TABLE	
SHEET NO.	SHEET TITLE
--	COVER SHEET
G-1	INDEX, VICINITY AND LOCATION MAP
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C-1	SITE PLAN
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LOCATION MAP

N.T.S.

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SABINE RIVER AUTHORITY
IRON BRIDGE DAM ROCK RIPRAP REPAIR

GENERAL

INDEX, VICINITY AND LOCATION MAP

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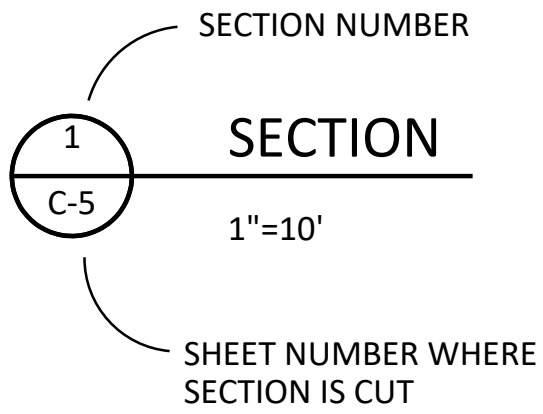
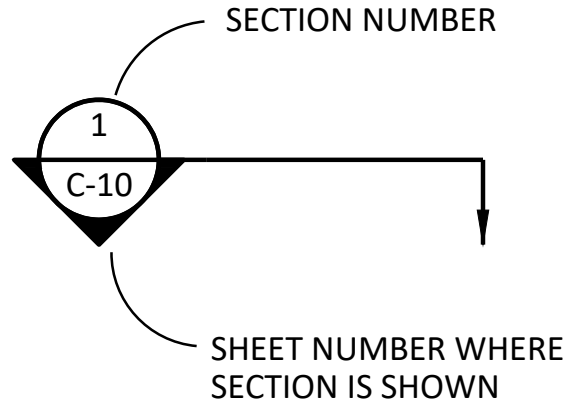
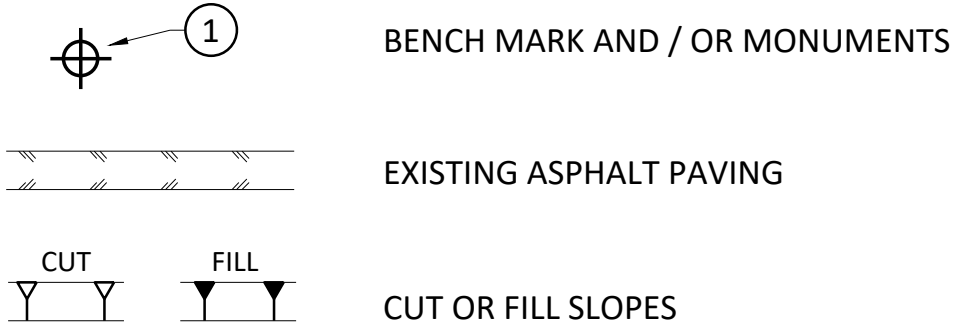
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GENERAL CONSTRUCTION REQUIREMENTS:

- CONTRACTOR SHALL ABIDE BY ALL APPLICABLE GOVERNMENTAL AND REGULATORY STANDARDS AND REQUIREMENTS AND SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FOR CONSTRUCTION OF THE FACILITIES SHOWN IN THE DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING GENERAL SAFETY AT AND ADJACENT TO THE PROJECT AREA, INCLUDING THE PERSONAL SAFETY OF THE CONSTRUCTION STAFF AND GENERAL PUBLIC, AND FOR THE SAFETY OF PUBLIC AND PRIVATE PROPERTY.
- THE CONTRACTOR MAY USE EXISTING PUBLIC ROADS FOR TRANSPORTATION. THE CONTRACTOR SHALL FOLLOW THE LAWS FOR ROAD WEIGHT RESTRICTION. DAMAGE CAUSED BY CONSTRUCTION VEHICLES FROM CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- IN ACCORDANCE WITH TEXAS STATE LAW, AT LEAST 2 DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING A TEXAS REGISTERED NOTIFICATION CENTER (I.E. TEXAS ONE CALL, DIG TESS, ETC.), IN ORDER TO HAVE EXISTING UTILITIES LOCATED.
- THE SURVEY INFORMATION CONTAINED ON THESE DRAWINGS DOES NOT SHOW OR INCLUDE THE LOCATIONS OF ALL EXISTING TREES OR UTILITIES.
- CONTRACTOR SHALL DISPOSE OF ALL DEBRIS, CONSTRUCTION RUBBLE, AND TRASH AT AN APPROVED DISPOSAL FACILITY IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
- NO BLASTING IS ALLOWED. NO FIRES ARE ALLOWED.
- ALL GATES SHALL BE KEPT CLOSED TO CONTROL ACCESS TO THE SITE. GATES SHALL BE LOCKED AT NIGHT.
- ALL FENCING WHICH IS REMOVED FOR CONSTRUCTION SHALL BE REPLACED PRIOR TO THE END OF THE WORK DAY.
- ALL AREAS WHICH ARE DISTURBED DURING CONSTRUCTION INCLUDING AREAS OF STOCKPILED RIPRAP SHALL BE RESEEDED IN ACCORDANCE WITH THE SPECIFICATIONS. ALL SEEDED AREAS SHALL BE WATERED DAILY FOR A PERIOD OF NOT LESS THAN ONE MONTH AFTER REVEGETATION. CONTINUE WATERING UNTIL THE VEGETATION IS ESTABLISHED.
- THE CONTRACTOR MAY ACQUIRE ADDITIONAL TEMPORARY CONSTRUCTION EASEMENTS AT HIS OWN COST, IF HE SO CHOOSES. IF THE CONTRACTOR ACQUIRES ADDITIONAL TEMPORARY EASEMENTS, HE SHALL PROVIDE COPIES OF THE WRITTEN AGREEMENT TO THE ENGINEER. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ANY DAMAGES RESULTING FROM USE OF ADDITIONAL TEMPORARY EASEMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SERVICE LINES CROSSED OR EXPOSED BY HIS CONSTRUCTION OPERATIONS. WHERE EXISTING SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY REPLACE THE SERVICE LINES WITH THE SAME TYPE OF ORIGINAL CONSTRUCTION MATERIAL OR BETTER.
- CONTRACTOR SHALL VERIFY DEPTH AND LOCATIONS OF ALL UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT.
- ALL ELEVATIONS SHALL BE VERIFIED BY CONTRACTOR. ALL PROPOSED TIE-INS TO EXISTING STRUCTURES SHALL BE VERIFIED.
- PROPOSED CONTOUR LINES, SPOT ELEVATIONS AND SLOPE INDICATORS REPRESENT FINISHED GRADES, EXCEPT AS OTHERWISE NOTED ON THE DRAWINGS.
- MAXIMUM SPEED LIMIT ON THE PROJECT SITE SHALL BE 20 M.P.H.
- THE NORMAL LAKE LEVEL ELEVATION IS 437.5 FEET.
- THE CONTRACTOR SHALL MINIMIZE TURBIDITY IN WATERWAYS DURING ALL PHASES OF THE PROJECT, INCLUDING DREDGE, DECANT, FILL AND CONSTRUCTION. THE CONTRACTOR SHALL EMPLOY ADEQUATE METHODS TO ENSURE MINIMUM TURBIDITY FROM NEW AND LONG TERM EROSION FROM FILL, SPOIL, AND/OR DEVEGETATED AREAS DURING AND FOLLOWING CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS CONCERNING WATER POLLUTION AND CONTROL OF EROSION.
- BEFORE BEGINNING CONSTRUCTION, CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONFLICTS FOUND IN DRAWINGS AND/OR FIELD DIMENSIONS.
- SITE SECURITY IS THE CONTRACTORS RESPONSIBILITY.
- THE CONTRACTOR SHALL CONTROL EROSION AND SEDIMENTATION PER THE APPLICABLE PERMITS, LAWS, AND REGULATIONS INCLUDING AN SWPPP IF REQUIRED.
- THE CONTRACTOR STAGING AREA SHALL BE APPROVED BY THE OWNER.
- OWNER WILL NEED PERIODIC ACCESS TO THE SPILLWAY VIA THE ROAD ON THE CREST OF THE DAM TO PERFORM ROUTINE OPERATION ACTIVITIES. CONTRACTOR WILL BE REQUIRED TO PROVIDE ROOM FOR VEHICULAR ACCESS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE OWNER, PARK EQUIPMENT USED FOR THE REPLACEMENT OF THE ROCK ON THE TOP OF THE DAM OVERNIGHT, PROVIDED A VEHICLE CAN PASS AND IT IS MARKED WITH TRAFFIC CONES OR SOME TYPE OF REFLECTIVE MARKERS VISIBLE FROM BOTH DIRECTIONS.
- THE CONTRACTOR SHALL REMOVE THE LOOSE DEBRIS (WOOD, TRASH, ETC.) ON THE ROCK RIPRAP AND DISPOSE OF IT IN AN APPROVED LANDFILL. COST FOR THIS ITEM SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS BID.
- ALL ROCK RIPRAP IS FURNISHED BY THE OWNER AND IS ON-SITE AS INDICATED.
- CONTRACTOR SHALL UTILIZE RUBBER TIRE EQUIPMENT OR SHALL UTILIZE MATS ON THE CREST ROAD TO MINIMIZE DAMAGE.
- ANY DAMAGE TO THE ROAD ON THE CREST OF THE DAM SHALL BE REPAIRED TO EXISTING OR BETTER CONDITION. EXISTING ROAD SECTION IS SHOWN ON THE PLANS.
- NO CONSTRUCTION TRAFFIC IS ALLOWED ON THE DOWNSTREAM SLOPE OF THE DAM.
- NO ACCESS EXISTS ACROSS THE SPILLWAY AT THE CREST OF THE DAM.
- PLANS AND SPECIFICATIONS SHALL NOT BE SUBSTANTIALLY OR MATERIALLY ALTERED WITHOUT PRIOR WRITTEN APPROVAL OF THE TCEQ'S EXECUTIVE DIRECTOR.

LEGEND OF SYMBOLS



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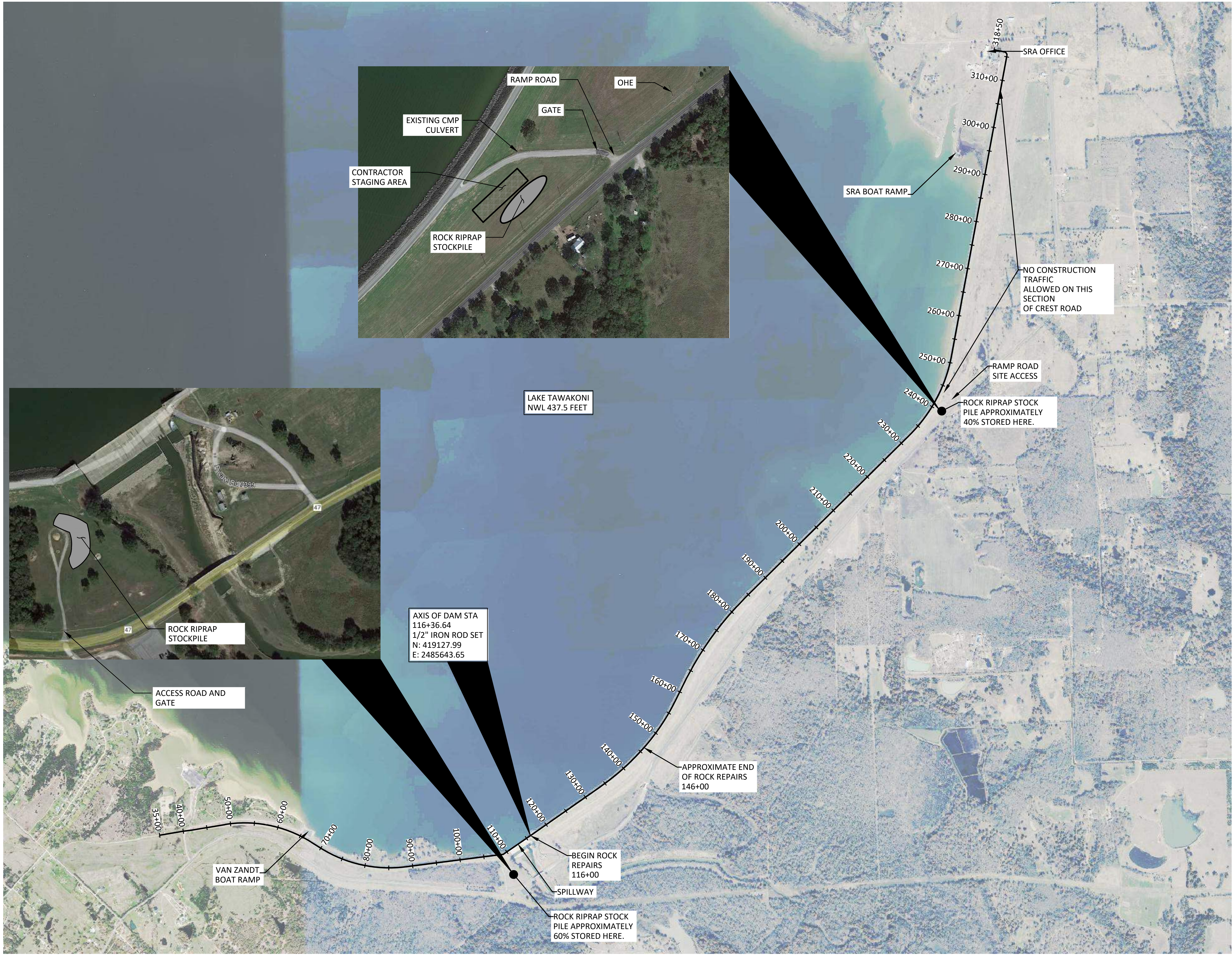
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GENERAL NOTES

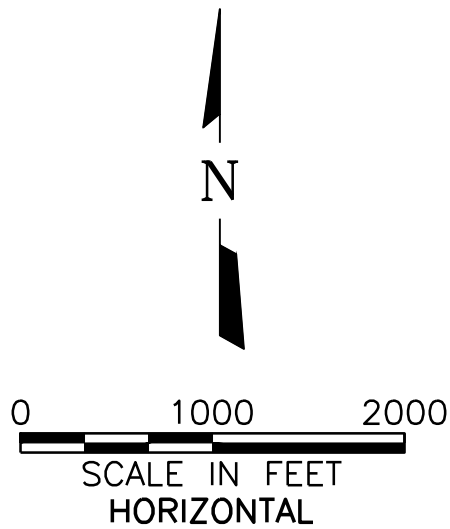
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- NOTES:
1. SITE SHALL BE ACCESSED VIA THE RAMP ROAD.
 2. NO CONSTRUCTION TRAFFIC ALLOWED BETWEEN RAMP ROAD AND SRA OFFICE. OWNER-FURNISHED ROCK RIPRAP IS STORED BY THE RAMP ROAD AND ON THE WEST SIDE OF THE SPILLWAY AS INDICATED.
 3. OWNER HAS PURCHASED 14,222 TONS OF ROCK RIPRAP AND IT IS STORED ON-SITE AS INDICATED.
 4. ROCK RIPRAP REPAIRS WILL START AT THE EAST SIDE OF THE SPILLWAY AND EXTEND APPROXIMATELY 3000 LF EAST OR UNTIL ALL OF THE ROCK IS PLACED.
 5. ROCK RIPRAP STOCKPILE ON THE WEST SIDE OF SPILLWAY WILL NEED TO BE TRANSPORTED TO THE RAMP ROAD ACCESS POINT. NO ACCESS ACROSS THE SPILLWAY IS AVAILABLE.
 6. BOAT RAMPS SHOWN ARE AVAILABLE FOR THE CONTRACTOR'S USE.



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SITE PLANN

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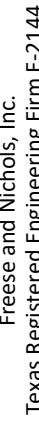
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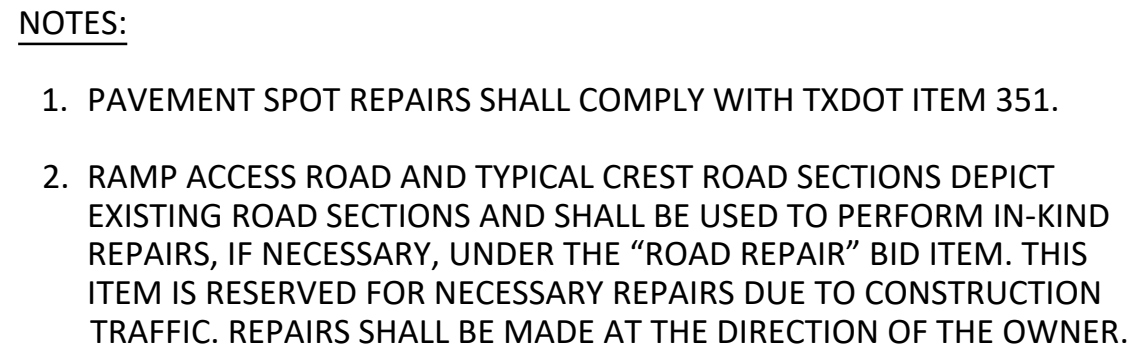
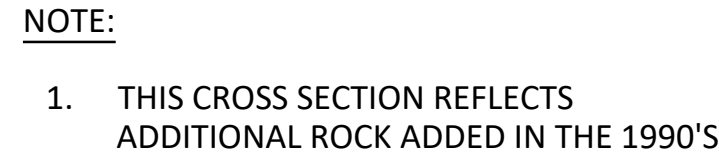


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TYPICAL SECTIONS



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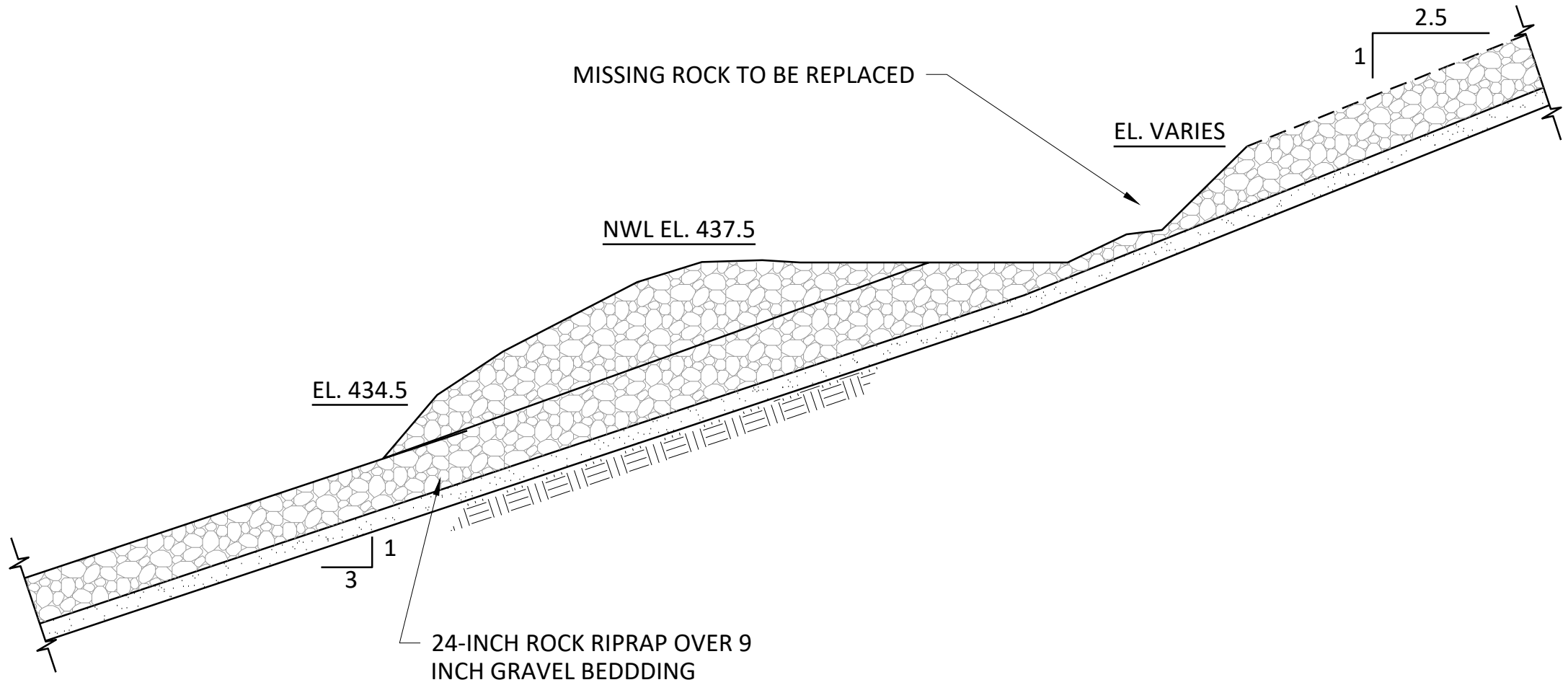
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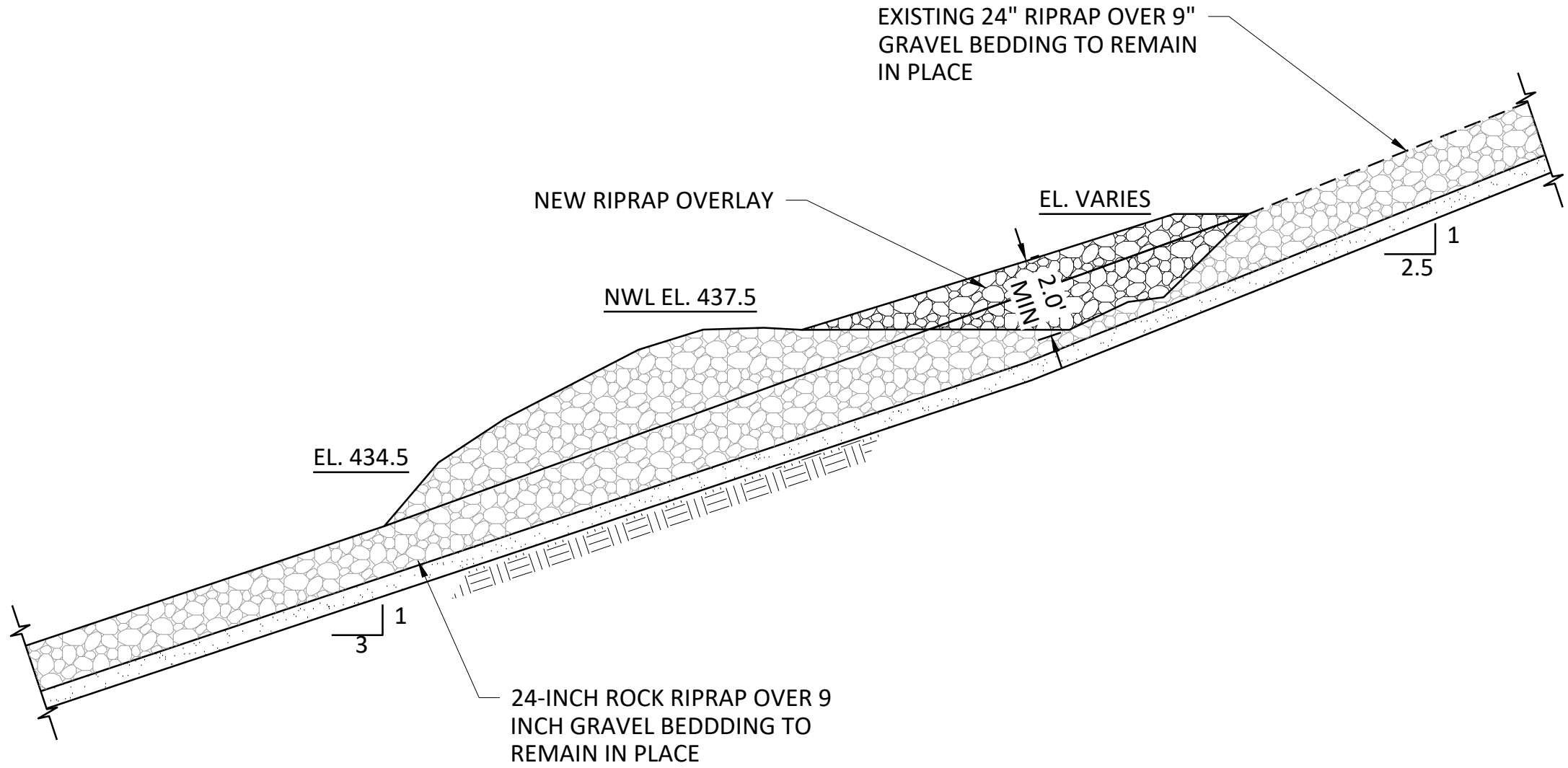
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1 EXISTING DAMAGE SECTION
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2 TYPICAL RIPRAP OVERLAY SECTION
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ROCK RIPRAP NOTES

1. THE ORIGINAL ROCK RIPRAP AND GRAVEL BEDDING ON THE UPSTREAM SLOPE OF THE DAM CONSISTED OF A 9-INCH LAYER OF GRAVEL BEDDING AND A 24-INCH LAYER OF ROCK RIPRAP.
2. ROCK MOVEMENT HAS OCCURRED ALONG THE UPSTREAM SLOPE NEAR THE NORMAL WATER LINE.
3. NO ROCK RIPRAP IS TO BE REMOVED FROM THE UPSTREAM SLOPE. MINOR REGRADING OF THE ROCK RIPRAP IS ALLOWED.
4. NEITHER GRAVEL BEDDING OR EMBANKMENT HAS BEEN EXPOSED.
5. SEE PHOTOS BELOW FOR GENERAL REPRESENTATION OF MISSING ROCK.
6. THE OWNER FURNISHED ROCK IS TO BE ADDED TO THE UPSTREAM SLOPE OF THE EMBANKMENT BEGINNING AT THE NORTHEAST SIDE OF THE SPILLWAY.
7. ALL OF THE STOCKPILED ROCK RIPRAP SHALL BE PLACED ON THE UPSTREAM SLOPE OF THE DAM.
8. AREAS OF MISSING ROCK SHALL BE FILLED IN TO CREATE AN OVERALL EVEN APPEARANCE ON THE UPSTREAM SLOPE.
9. LIMITS FOR TOP AND BOTTOM OF THE RIPRAP OVERLAY ARE APPROXIMATE.



PHOTO 1



PHOTO 2



PHOTO 3



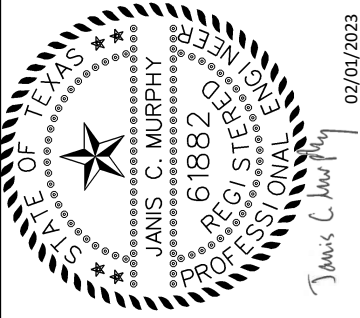
PHOTO 4

NOTE:
PHOTOS 1 AND 2 TAKEN 8/31/22. LAKE LEVEL AT TIME
WAS 434.3 FEET.

SITE PHOTOS
N.T.S.

NOTE :
PHOTOS 3 AND 4 TAKEN ON 11/5/21. LAKE LEVEL AT
THE TIME WAS APPROXIMATELY 436 FEET.

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