

# DANE COUNTY DEPARTMENT OF PUBLIC WORKS

## BABCOCK AND LAFOLLETTE PARKS - LOCKS AND DAMS RENOVATION PHASE 1 - CONCRETE AND SCOUR REPAIRS



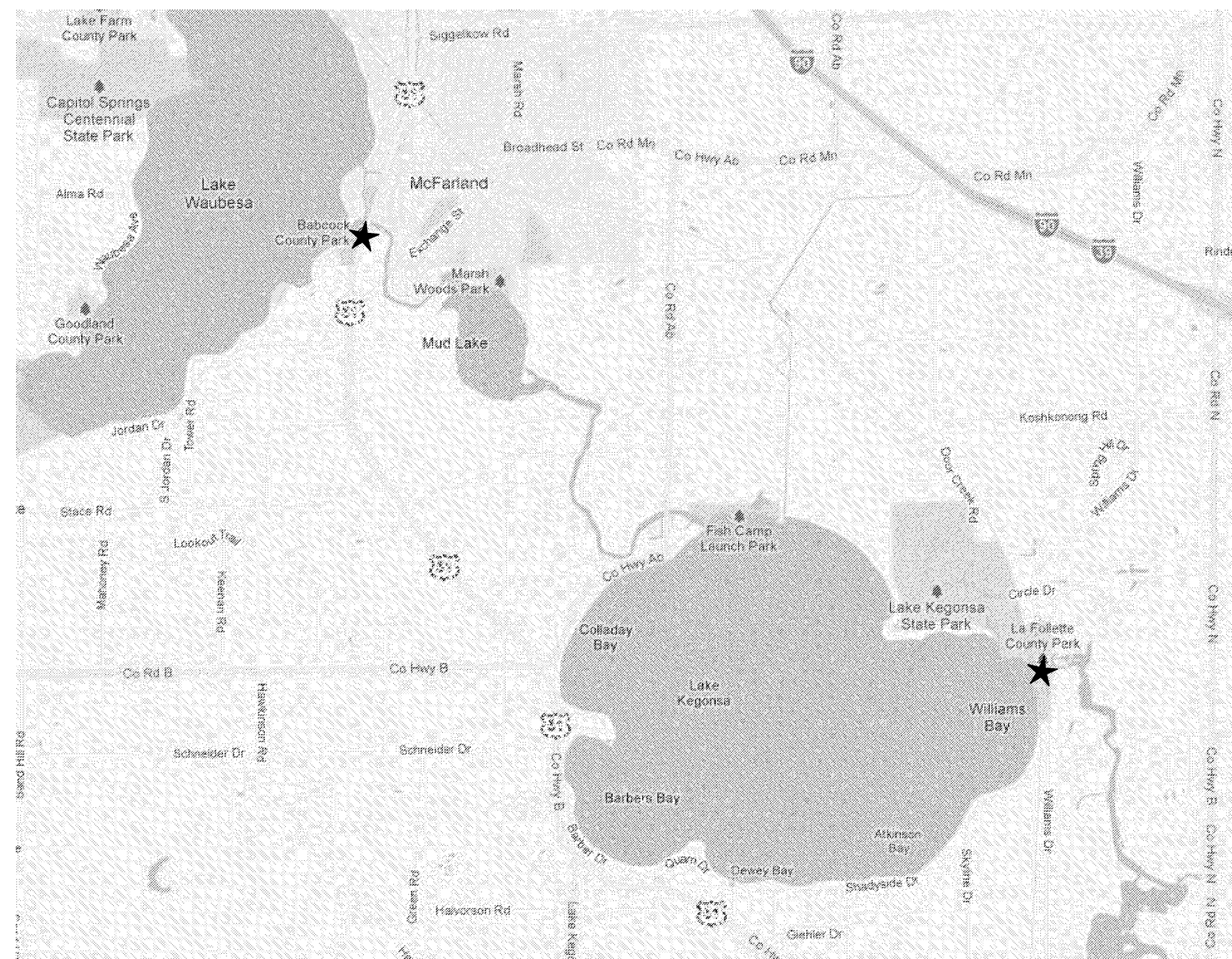
Dane County  
Department of Public Works  
Highway and Transportation  
1919 Alliant Energy Center Way  
Madison, Wisconsin 53173  
(608)-266-4018



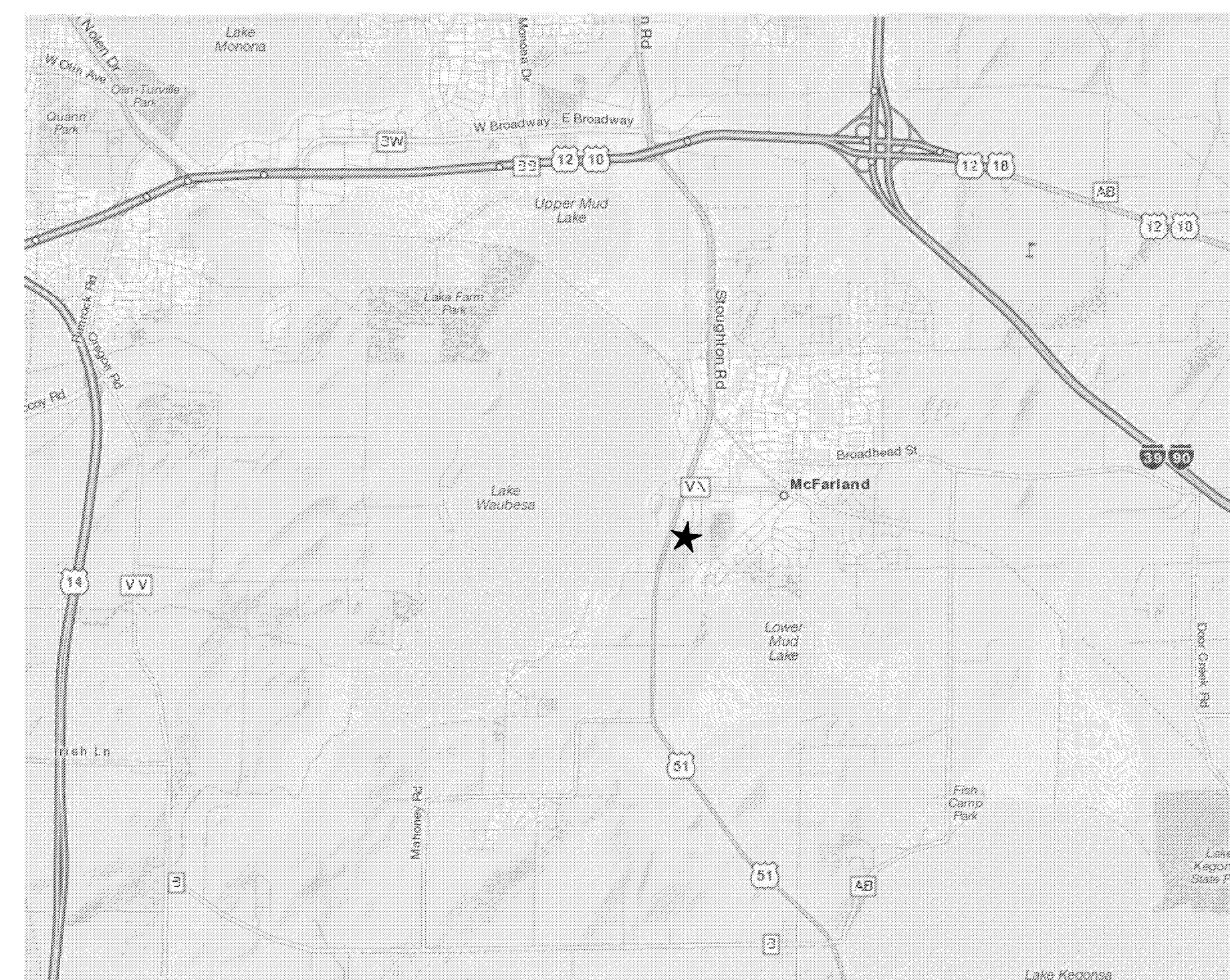
One Honey Creek Corporate Center  
125 South 84th Street,  
Suite 401  
Milwaukee, WI 53214-1470  
414 / 259 1500  
414 / 259 0037 fax  
[www.graef-usa.com](http://www.graef-usa.com)

### LOCATION MAPS

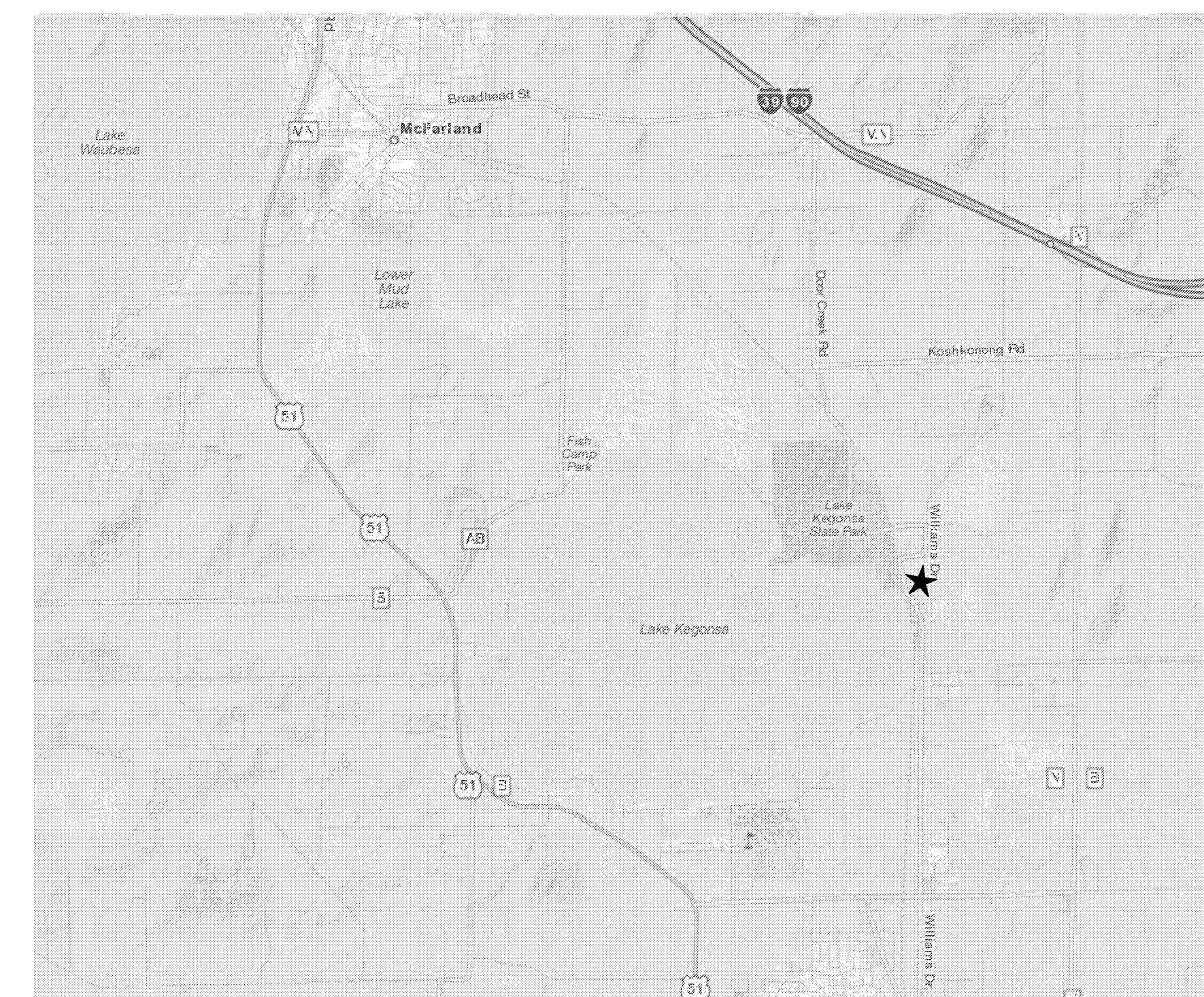
PROJECT NO 311030



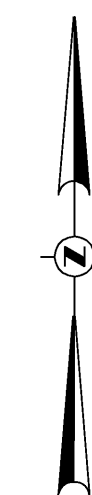
COMBINED LOCATION PLAN



BABCOCK LOCK AND DAM LOCATION PLAN



LAFOLLETTE LOCK AND DAM LOCATION PLAN



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NOTE: CROSSED OUT SHEET TITLES IN DRAWING INDEX ARE FOR WORK IN PHASE 2

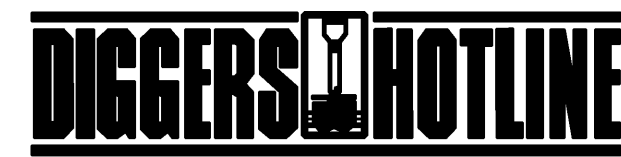
collaborate

formulate

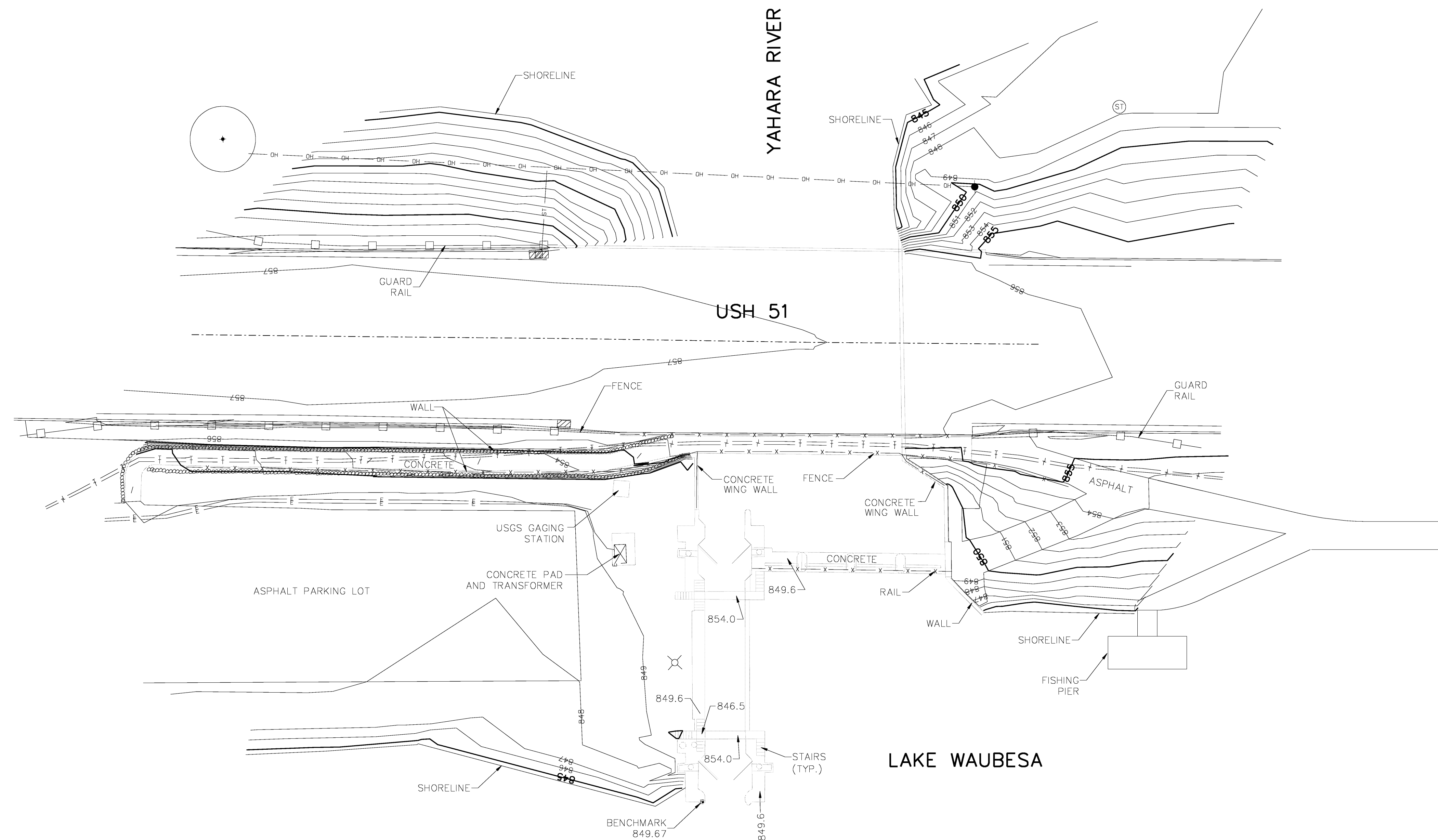
innovate

## GENERAL NOTES

- 1) SITE SURVEY DATA PROVIDED BY ARNOLD AND O'SHERIDAN INC. FIELD VERIFY EXISTING STRUCTURE CONFIGURATION AND CONDITIONS PRIOR TO START OF CONSTRUCTION.
- 2) IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, "DAMAGE TO TRANSMISSION FACILITIES", EXCAVATOR SHALL BE SOLEY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED IN THIS PROJECT, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATORS WORK.
- 3) CONTRACTOR, PRIOR TO ANY EXCAVATION WORK, SHALL NOTIFY (1) A DESIGNATED LOCATING SERVICE; (2) ALL UTILITIES, GOVERNMENTAL AGENCIES, ENTITIES, KNOWN TO, OR WHICH CAN REASONABLY BE ASSUMED TO, HAVE ABOVE OR BELOW GROUND PIPE, CONDUIT CABLES, STRUCTURES, OR SIMILAR ITEMS WITHIN LIMITS OF THE PROJECT; TO LOCATE AND MARK LOCATION OF SUCH ITEMS.



Toll Free (800) 242-8511  
Milwaukee Area (414) 259-1181  
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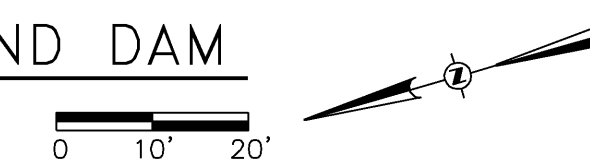


## LEGEND

<ul style="list-style-type: none"> <li>SECTION CORNER FOUND</li> <li>IRON STAKE FOUND</li> <li>REBAR PLACED</li> <li>CHISELED CROSS</li> <li>DRILL HOLE</li> <li>SURVEY NAIL</li> <li>WOOD STAKE</li> <li>RECORDED AS DATA</li> <li>MEASURED DATA</li> <li>SANITARY MANHOLE</li> <li>YARD CLEANOUT</li> <li>STORM MANHOLE</li> <li>STORM INLET</li> <li>STORM CATCH BASIN</li> <li>STORM CATCH BASIN</li> <li>STORM CLEAN OUT</li> <li>APRON ENDWALL</li> <li>WATER MANHOLE</li> <li>HYDRANT</li> <li>WATER VALVE</li> <li>SIAMENSE CONNECT</li> <li>POST INDICATOR VALVE</li> <li>GAS METER</li> <li>GAS VALVE</li> <li>TRAFFIC SIGNAL</li> <li>TRAFFIC CONTROL BOX</li> </ul>	<ul style="list-style-type: none"> <li>LIGHT POLE</li> <li>ELECTRICAL OUTLET</li> <li>UTILITY POLE</li> <li>GUY WIRE / DEAD MAN</li> <li>TRAFFIC SIGNAL</li> <li>TRAFFIC CONTROL BOX</li> <li>ELECTRIC PEDESTAL</li> <li>ELECTRIC METER</li> <li>ELECTRIC MANHOLE</li> <li>TELEPHONE PEDESTAL</li> <li>TELEPHONE MANHOLE</li> <li>CABLE PEDESTAL</li> <li>SPRINKLER HEAD</li> <li>BOLLARD</li> <li>STON</li> <li>MONITORING WELL</li> <li>HANDICAP RAMP</li> <li>HANDICAP STALL</li> <li>STONE WALL</li> <li>FENCE LINE</li> <li>EDGE OF TREES</li> <li>PROPERTY LINE</li> <li>CENTER LINE</li> <li>EXISTING BUILDING</li> <li>EXISTING CONCRETE</li> <li>EXISTING GRAVEL</li> <li>EXISTING ASPHALT</li> </ul>	<ul style="list-style-type: none"> <li>CANOPY/SHADE TREE</li> <li>SHRUB</li> <li>CONIFEROUS TREE</li> <li>WAT - BURIED WATER MAIN</li> <li>SAN - SANITARY SEWER</li> <li>ST - STORM SEWER</li> <li>RD - ROOF DRAIN</li> <li>OH - OVERHEAD WIRES</li> <li>CATV - BURIED CABLE TV LINE</li> <li>E - BURIED ELECTRIC</li> <li>T - BURIED TELEPHONE</li> <li>FO - FIBER OPTIC</li> <li>G - BURIED GAS MAIN</li> <li>- CONTOUR</li> <li>SPOT ELEVATION</li> <li>CAUTION</li> <li>BENCH MARK</li> <li>PROPERTY LINE</li> <li>UTILITY EASEMENT</li> <li>SETBACK LINE</li> <li>EDGE OF WATER</li> <li>WETLAND BOUNDARY</li> <li>100 YEAR FLOOD BOUNDARY</li> </ul>
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## EXISTING SITE PLAN - BABCOCK LOCK AND DAM

TYPICAL WINTER WATER ELEVATIONS RANGE FROM 843.5 TO 844.25  
TYPICAL WINTER WATER FLOW RATES RANGE FROM 300 TO 500 CFS  
EXPECTED WATER ELEVATION FROM STORM EVENTS ARE 846.80  
EXPECTED WATER FLOW RATES FROM STORM EVENTS ARE 1075 CFS



CONSULTANTS:

PROJECT TITLE:

DANE COUNTY  
DEPARTMENT OF PUBLIC WORKS  
BABCOCK AND LAFOLLETTE PARKS -  
LOCKS AND DAMS RENOVATION  
PHASE 1 - CONCRETE AND SCOUR REPAIR

ISSUE:

PROJECT INFORMATION:

PROJECT NUMBER: 2011-5012  
DATE: 10-13-2011  
DRAWN BY: BLM  
CHECKED BY: MJH  
APPROVED BY: MJH  
SCALE: AS SHOWN

SHEET TITLE:

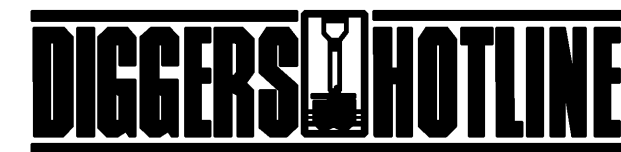
EXISTING SITE PLAN -  
BABCOCK LOCK AND DAM

SHEET NUMBER:

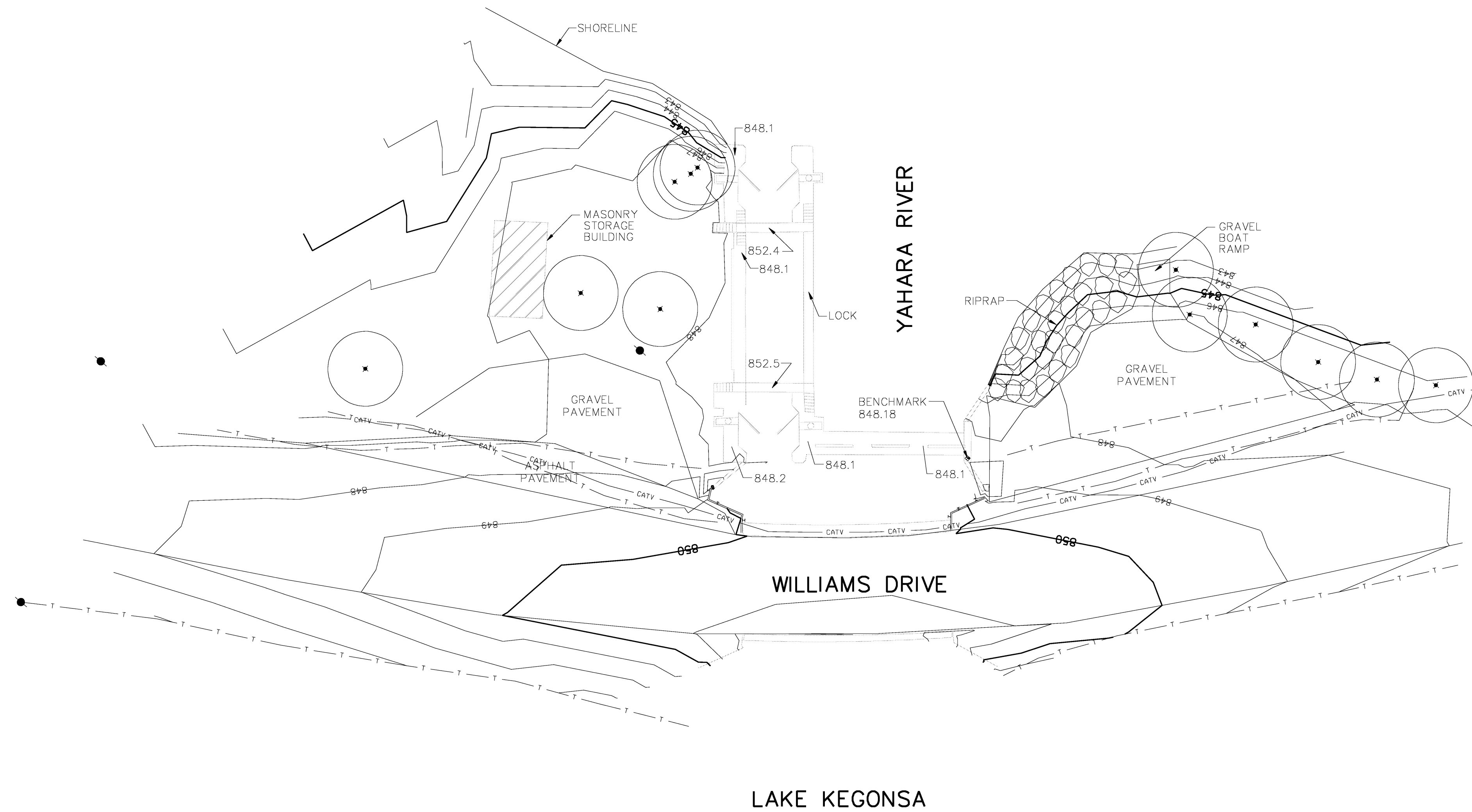
One Honey Creek Corporate Center  
 125 South 84th Street,  
 Suite 401  
 Milwaukee, WI 53214-1470  
 414 / 259 1500  
 414 / 259 0037 fax  
 www.graef-usa.com

## GENERAL NOTES

- 1) SITE SURVEY DATA PROVIDED BY ARNOLD AND O'SHERIDAN INC. FIELD VERIFY EXISTING STRUCTURE CONFIGURATION AND CONDITIONS PRIOR TO START OF CONSTRUCTION.
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CONSULTANTS:

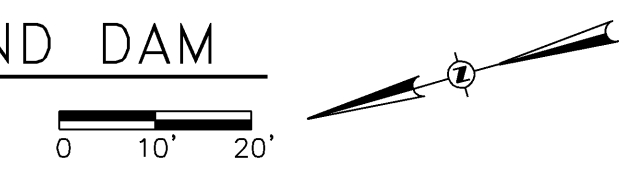
PROJECT TITLE:

DANE COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
 BABCOCK AND LAFOLLETTE PARKS -  
 LOCKS AND DAMS RENOVATION  
 PHASE 1 - CONCRETE AND SCOUR REPAIR

ISSUE:

## EXISTING SITE PLAN - LAFOLLETTE LOCK AND DAM

TYPICAL WINTER WATER ELEVATIONS RANGE FROM 842.5 TO 843.00  
 TYPICAL WINTER WATER FLOW RATES RANGE FROM 300 TO 500 CFS  
 EXPECTED WATER ELEVATION FROM STORM EVENTS ARE 845.00  
 EXPECTED WATER FLOW RATES FROM STORM EVENTS ARE 978 CFS



## LEGEND

<ul style="list-style-type: none"> <li>■ SECTION CORNER FOUND</li> <li>● IRON STAKE FOUND</li> <li>○ REBAR PLACED</li> <li>⊗ CHISELED CROSS</li> <li>○ DRILL HOLE</li> <li>△ SURVEY NAIL</li> <li>□ WOOD STAKE</li> <li>(263.56') RECORDED AS DATA</li> <li>(263.51') MEASURED DATA</li> <li>○ SANITARY MANHOLE</li> <li>○ YARD CLEANOUT</li> <li>○ STORM MANHOLE</li> <li>○ STORM INLET</li> <li>○ STORM CATCH BASIN</li> <li>○ STORM CATCH BASIN</li> <li>○ STORM CLEAN OUT</li> <li>○ APRON ENDWALL</li> <li>○ WATER MANHOLE</li> <li>○ HYDRANT</li> <li>○ WATER VALVE</li> <li>○ SIAMESE CONNECT</li> <li>○ POST INDICATOR VALVE</li> <li>○ GAS METER</li> <li>○ GAS VALVE</li> <li>○ TRAFFIC SIGNAL</li> <li>○ TRAFFIC CONTROL BOX</li> </ul>	<ul style="list-style-type: none"> <li>○ LIGHT POLE</li> <li>○ ELECTRICAL OUTLET</li> <li>○ UTILITY POLE</li> <li>○ GUY WIRE / DEAD MAN</li> <li>○ TRAFFIC SIGNAL</li> <li>○ TRAFFIC CONTROL BOX</li> <li>○ ELECTRIC PEDESTAL</li> <li>○ ELECTRIC METER</li> <li>○ ELECTRIC MANHOLE</li> <li>○ TELEPHONE PEDESTAL</li> <li>○ TELEPHONE MANHOLE</li> <li>○ CABLE PEDESTAL</li> <li>○ SPRINKLER HEAD</li> <li>○ BOLLARD</li> <li>○ SIGN</li> <li>○ MONITORING WELL</li> <li>○ HANDICAP RAMP</li> <li>○ HANDICAP STALL</li> <li>○ STONE WALL</li> <li>○ FENCE LINE</li> <li>○ EDGE OF TREES</li> <li>○ PROPERTY LINE</li> <li>○ CENTER LINE</li> <li>○ EXISTING BUILDING</li> <li>○ EXISTING CONCRETE</li> <li>○ EXISTING GRAVEL</li> <li>○ EXISTING ASPHALT</li> </ul>	<ul style="list-style-type: none"> <li>○ CANOPY/SHADE TREE</li> <li>○ SHRUB</li> <li>○ CONIFEROUS TREE</li> <li>— WAT — BURIED WATER MAIN</li> <li>— SAN — SANITARY SEWER</li> <li>— ST — SANITARY SEWER</li> <li>— SD — STORM SEWER</li> <li>— RD — ROOF DRAIN</li> <li>— OH — OVERHEAD WIRES</li> <li>— CATV — BURIED CABLE TV LINE</li> <li>— E — BURIED ELECTRIC</li> <li>— T — BURIED TELEPHONE</li> <li>— FO — FIBER OPTIC</li> <li>— G — BURIED GAS MAIN</li> <li>— 23 — CONTOUR</li> <li>○ X — SPOT ELEVATION</li> <li>○ CAUTION — CAUTION</li> <li>○ BENCH MARK</li> <li>— PROPERTY LINE</li> <li>— UTILITY EASEMENT</li> <li>— SETBACK LINE</li> <li>— EDGE OF WATER</li> <li>— WETLAND BOUNDARY</li> <li>— 100 YEAR FLOOD BOUNDARY</li> </ul>
--	--	--

PROJECT INFORMATION:

PROJECT NUMBER: 2011-5012  
 DATE: 10-13-2011  
 DRAWN BY: BLM  
 CHECKED BY: MJH  
 APPROVED BY: MJH  
 SCALE: AS SHOWN

SHEET TITLE:

EXISTING SITE PLAN -  
 LAFOLLETTE LOCK AND DAM

SHEET NUMBER:

One Honey Creek Corporate Center  
 125 South 84th Street,  
 Suite 401  
 Milwaukee, WI 53214-1470  
 414 / 259 1500  
 414 / 259 0037 fax  
 www.graef-usa.com

CONSULTANTS:

PROJECT TITLE:

DANE COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
 BABCOCK AND LAFOLLETTE PARKS -  
 LOCKS AND DAMS RENOVATION  
 PHASE 1 - CONCRETE AND SCOUR REPAIR

ISSUE:

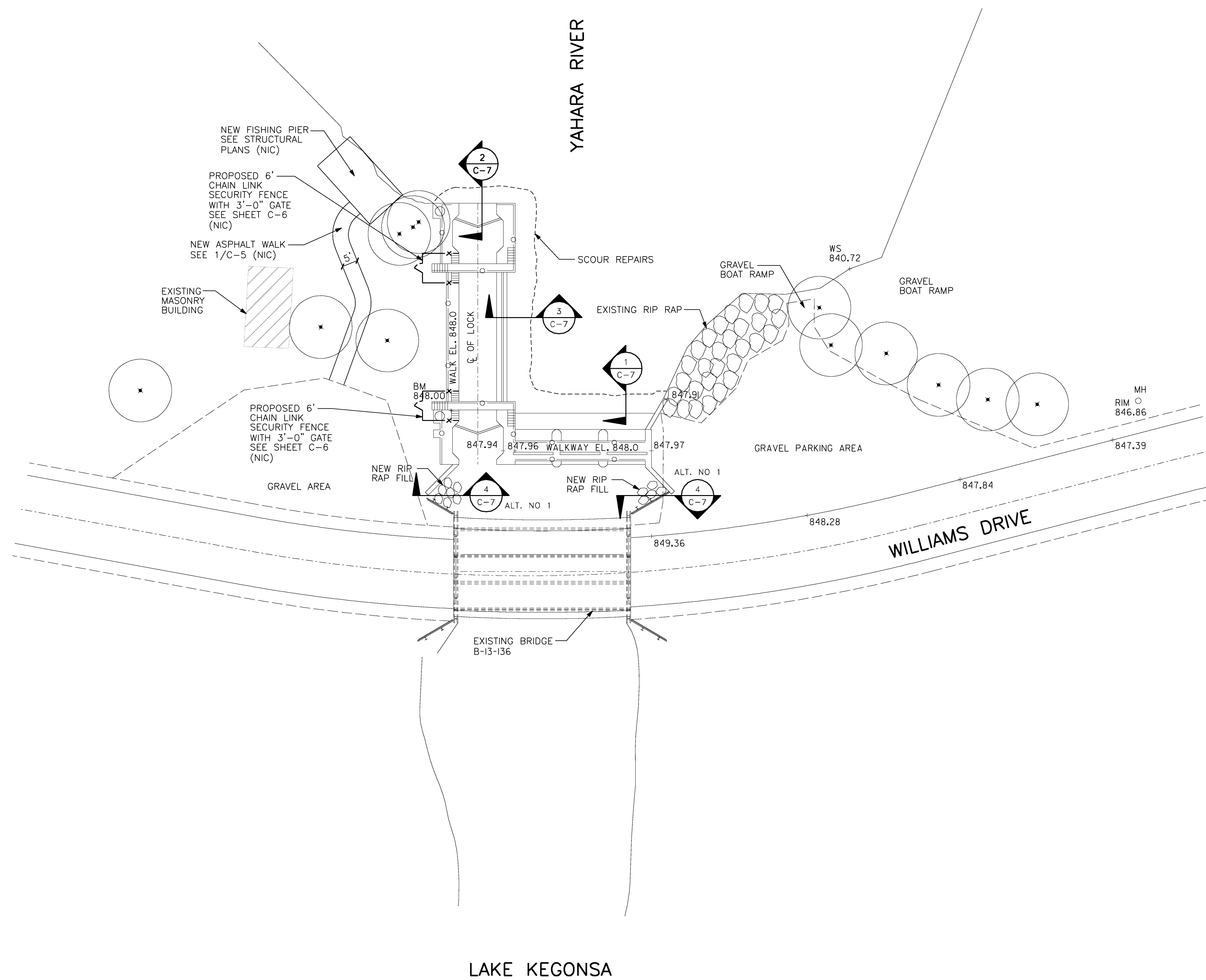
PROJECT INFORMATION:

PROJECT NUMBER: 2011-5012  
 DATE: 10-13-2011  
 DRAWN BY: BLM  
 CHECKED BY: MJH  
 APPROVED BY: MJH  
 SCALE: AS SHOWN

SHEET TITLE:

PROPOSED SITE PLAN -  
 LAFOLLETTE LOCK AND DAM

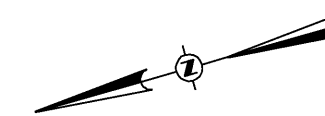
SHEET NUMBER:



## PROPOSED SITE PLAN - LAFOLLETTE LOCK AND DAM

(NIC) - NOT IN CONTRACT

0 10' 20'



One Honey Creek Corporate Center  
 125 South 84th Street,  
 Suite 401  
 Milwaukee, WI 53214-1470  
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ISSUE:

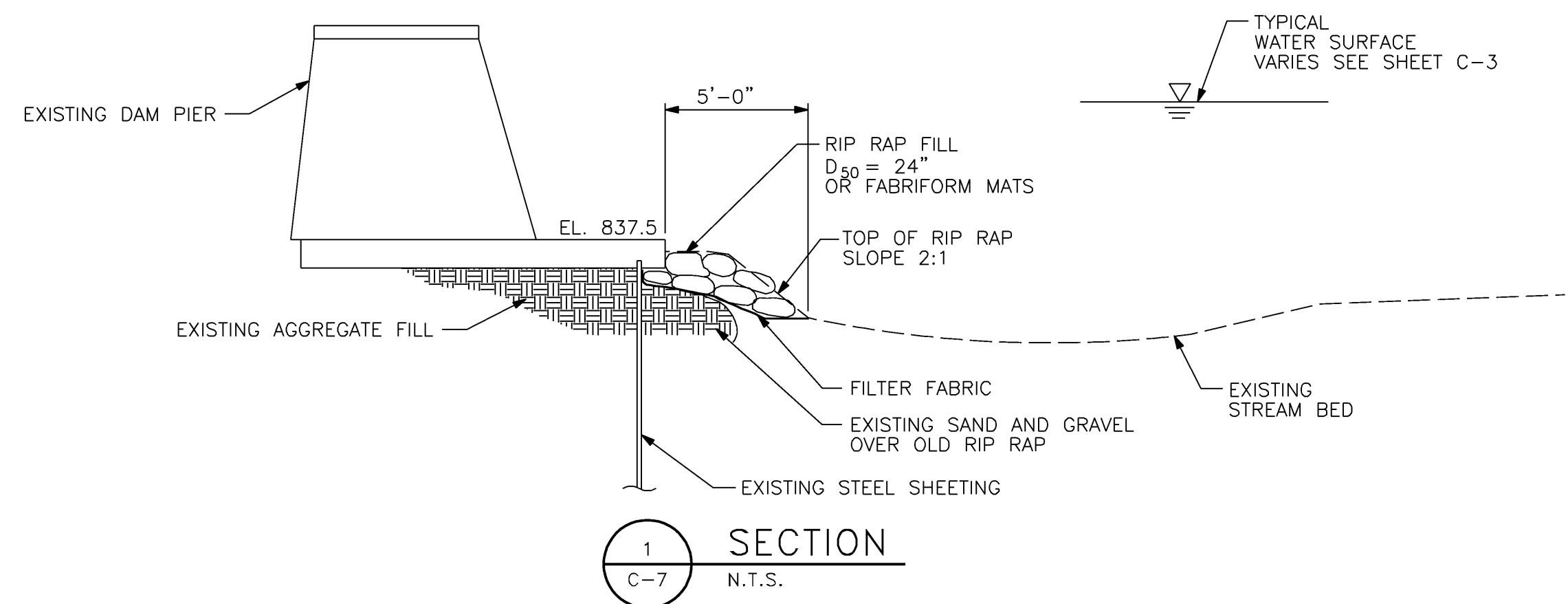
PROJECT INFORMATION:

PROJECT NUMBER: 2011-5012  
 DATE: 10-13-2011  
 DRAWN BY: BLM  
 CHECKED BY: MJH  
 APPROVED BY: MJH  
 SCALE: AS SHOWN

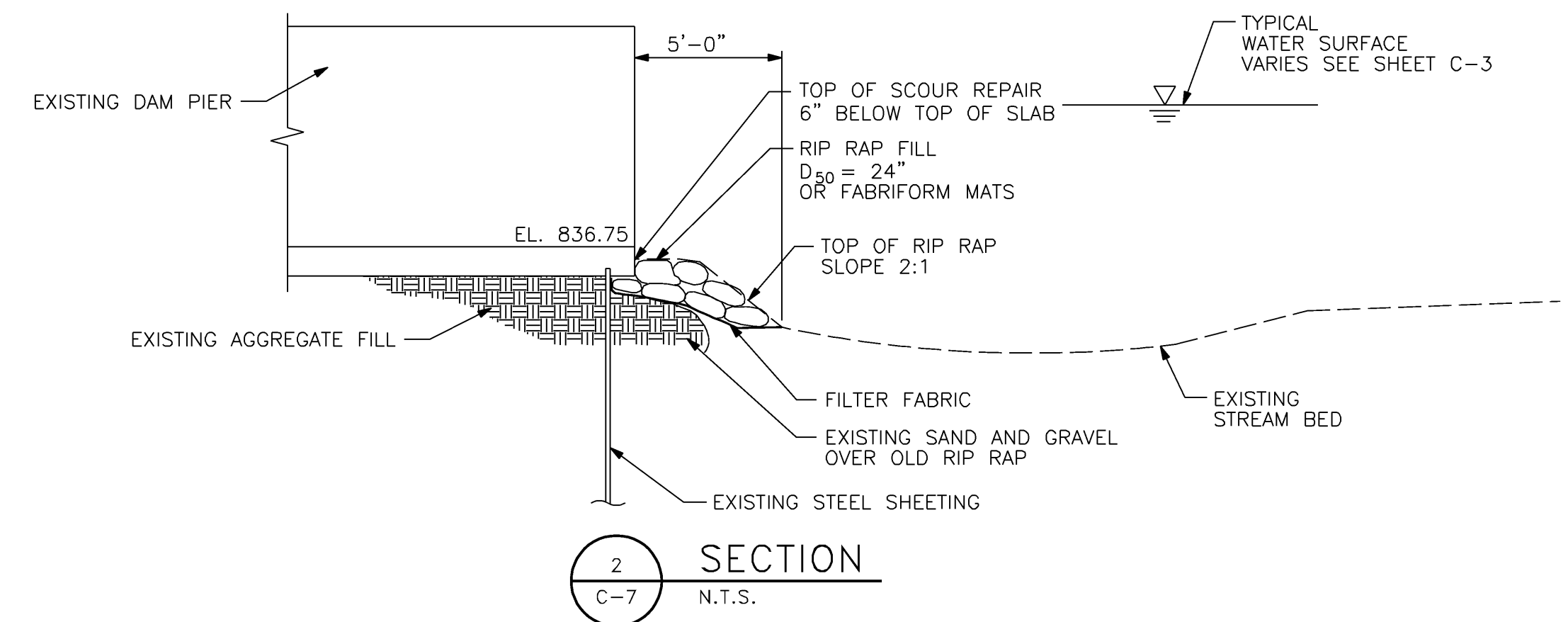
SHEET TITLE:

SCOUR REPAIR DETAILS

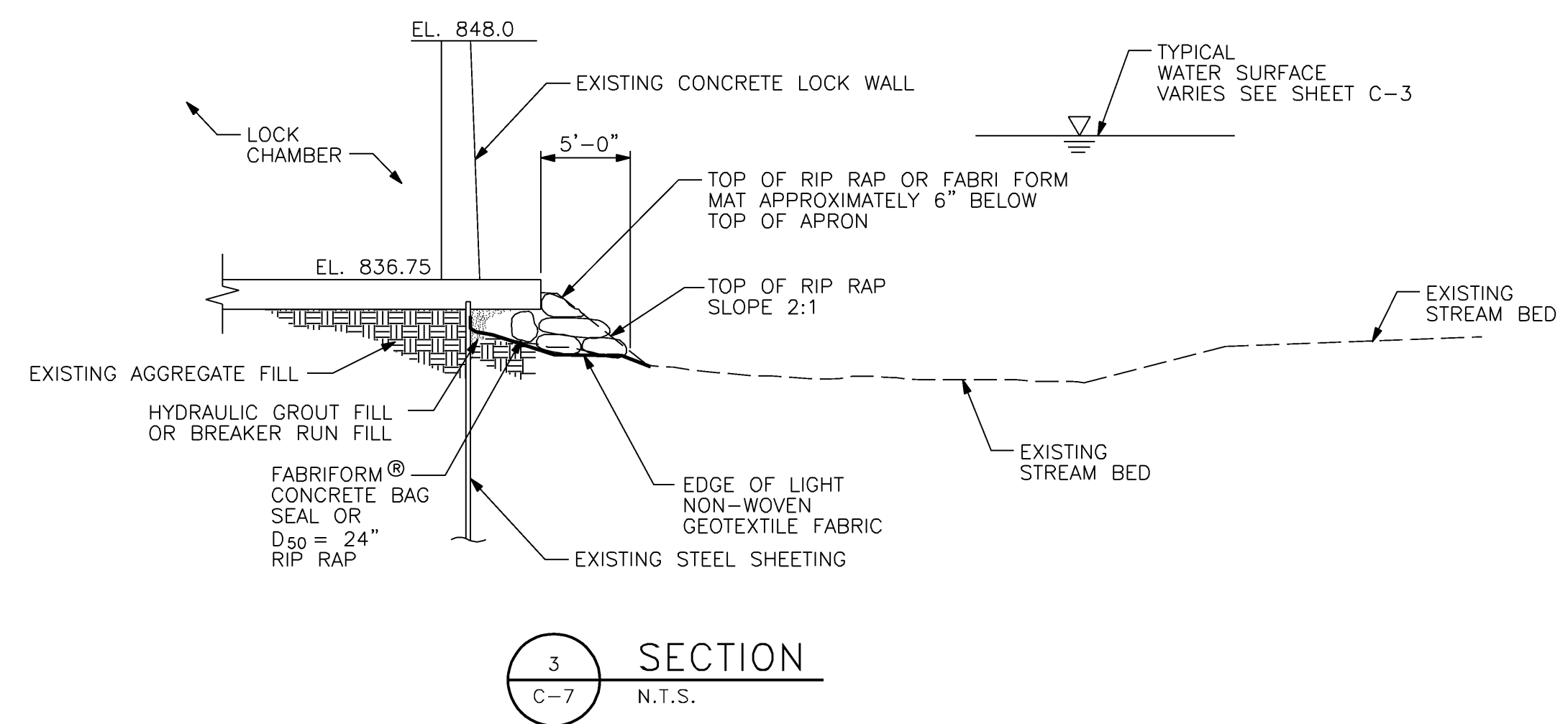
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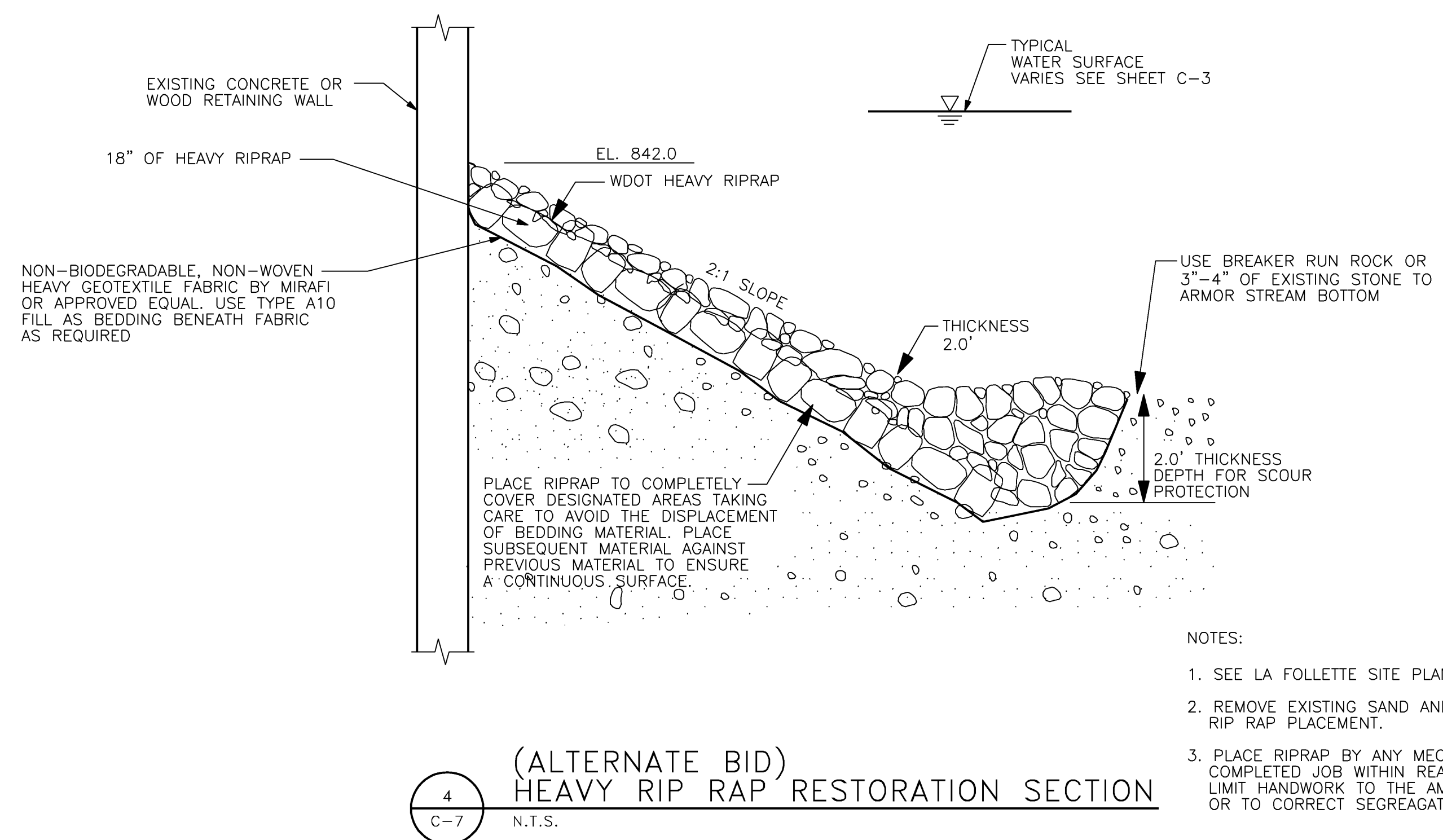
NOTE: SCOUR VARIES FROM 6" DEEP AT SOUTH END TO 1'-0" DEEP AT NORTH END FROM TOP OF SLAB  
 LENGTH OF APRON = 42 FEET



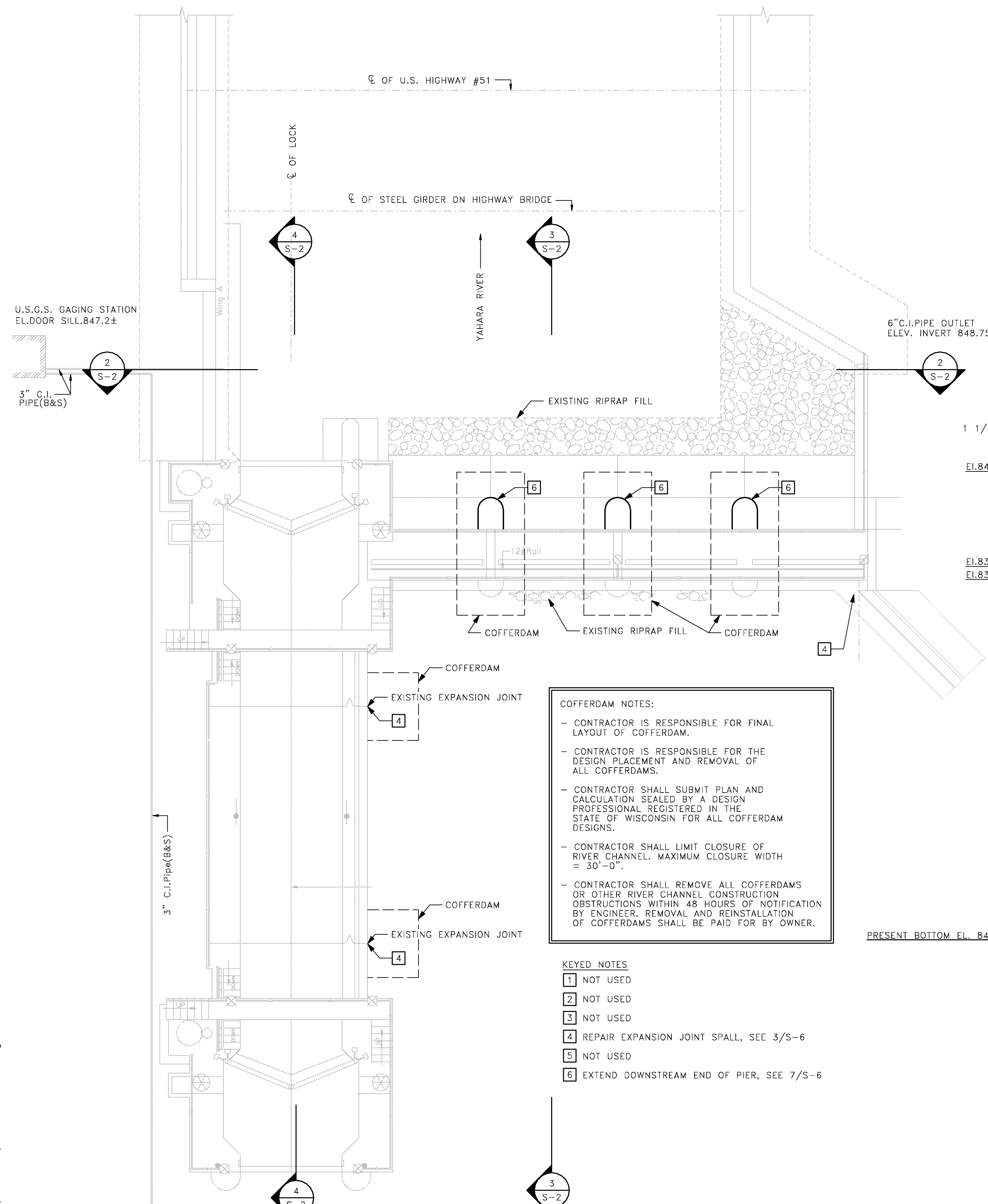
NOTE: SCOUR VARIES FROM 3'-0" DEEP AT SOUTH END TO 1'-0" DEEP AT NORTH END  
 WIDTH OF LOCK = 16 FEET



NOTE: SCOUR VARIES FROM 2'-0" DEEP AT WEST END TO 3'-0" DEEP AT EAST END  
 LENGTH OF LOCK = 74 FEET



- NOTES:
- SEE LA FOLLETTE SITE PLAN FOR SPECIFIC LOCATIONS.
  - REMOVE EXISTING SAND AND GRAVEL AS REQUIRED FOR RIP RAP PLACEMENT.
  - PLACE RIPRAP BY ANY MECHANICAL MEANS THAT PRODUCE A COMPLETED JOB WITHIN REASONABLE TOLERANCES OF THIS SECTION. LIMIT HANDWORK TO THE AMOUNT NECESSARY TO FILL LARGE VOIDS OR TO CORRECT SEGREGATED AREAS.

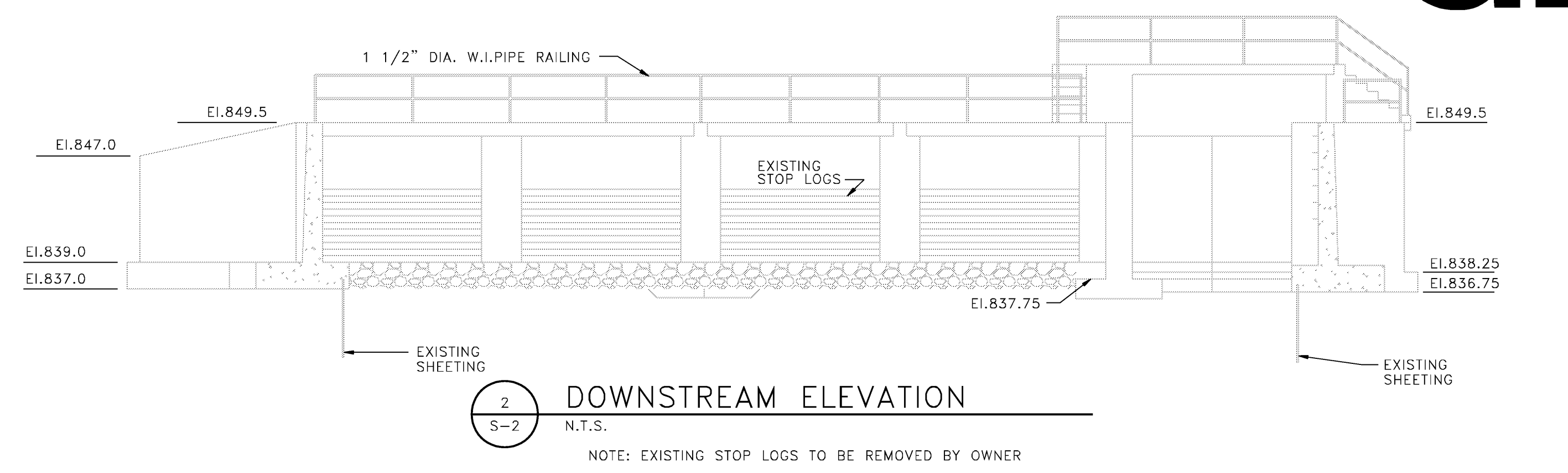


**COFFERDAM NOTES:**

- CONTRACTOR IS RESPONSIBLE FOR FINAL LAYOUT OF COFFERDAM.
- CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, PLACEMENT AND REMOVAL OF ALL COFFERDAMS.
- CONTRACTOR SHALL SUBMIT PLAN AND CALCULATION SEALED BY A DESIGN PROFESSIONAL REGISTERED IN THE STATE OF WISCONSIN FOR ALL COFFERDAM DESIGNS.
- CONTRACTOR SHALL LIMIT CLOSURE OF RIVER CHANNEL. MAXIMUM CLOSURE WIDTH = 30'-0".
- CONTRACTOR SHALL REMOVE ALL COFFERDAMS OR OTHER RIVER CHANNEL CONSTRUCTION OBSTRUCTIONS WITHIN 48 HOURS OF NOTIFICATION BY ENGINEER. REMOVAL AND REINSTALLATION OF COFFERDAMS SHALL BE PAID FOR BY OWNER.

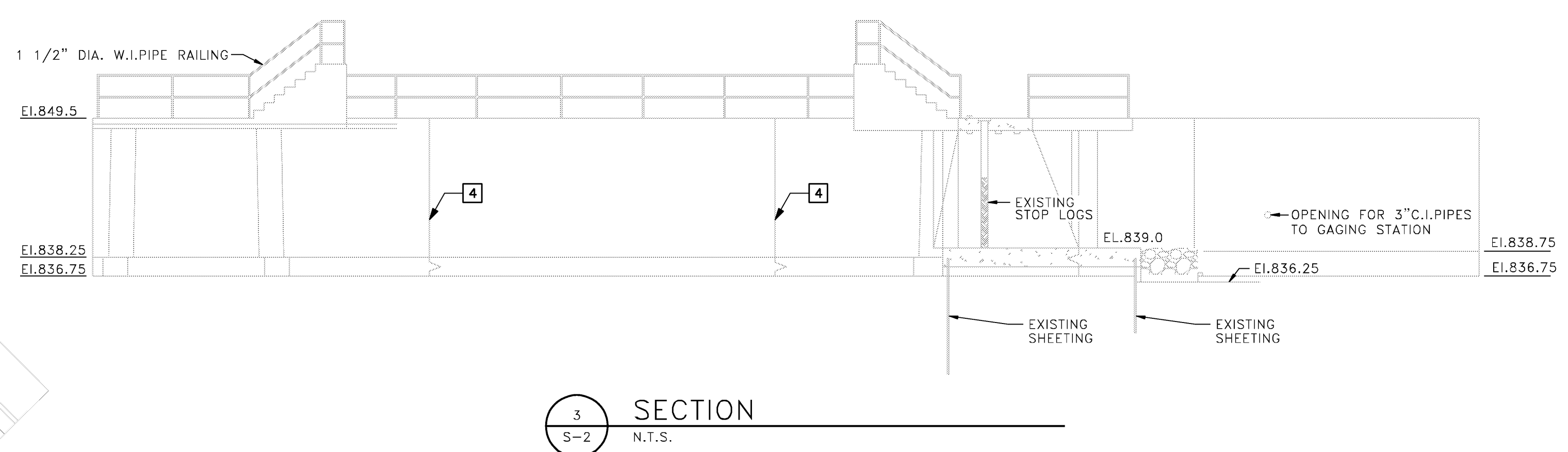
**KEYED NOTES**

1 NOT USED  
 2 NOT USED  
 3 NOT USED  
 4 REPAIR EXPANSION JOINT SPALL, SEE 3/S-6  
 5 NOT USED  
 6 EXTEND DOWNSTREAM END OF PIER, SEE 7/S-6

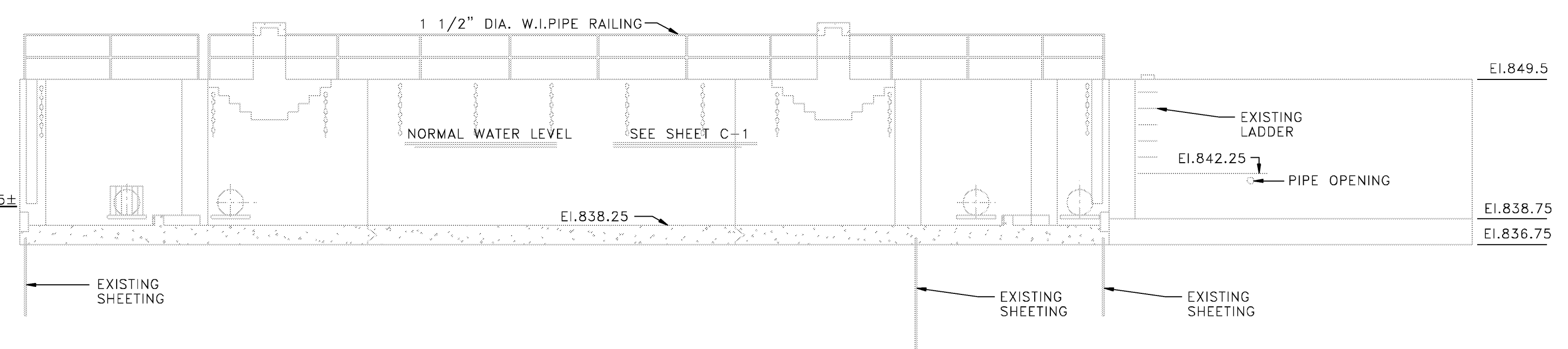


2 DOWNSTREAM ELEVATION  
 N.T.S.

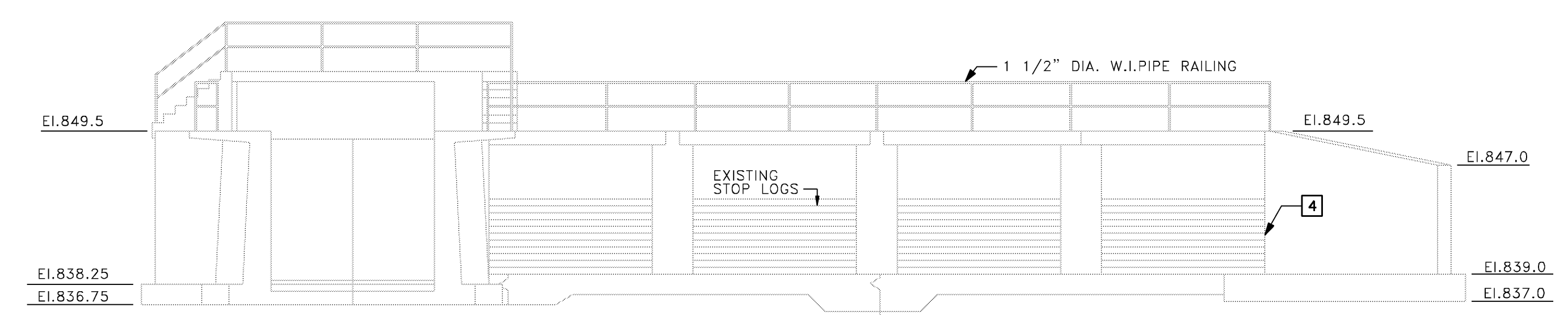
NOTE: EXISTING STOP LOGS TO BE REMOVED BY OWNER



3 SECTION  
 N.T.S.



4 SECTION  
 N.T.S.



5 UPSTREAM ELEVATION  
 N.T.S.



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125 South 84th Street,  
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CONSULTANTS:

PROJECT TITLE:

DANE COUNTY  
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BABCOCK AND LA FOLLETTE PARKS -  
LOCK AND DAM RENOVATION

ISSUE:

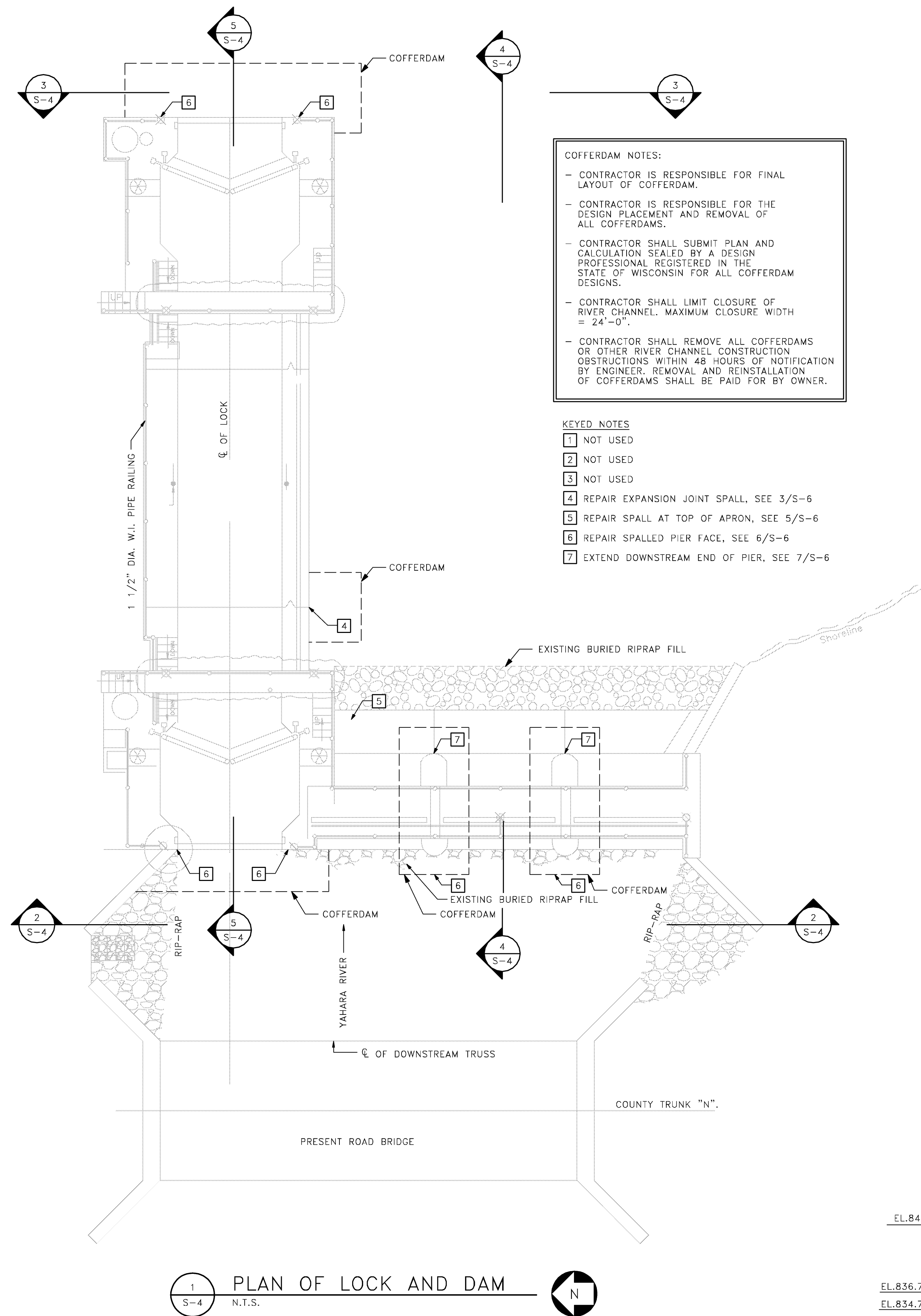
PROJECT INFORMATION:

PROJECT NUMBER: 2011-5012  
DATE: 10-13-2011  
DRAWN BY: AMZ  
CHECKED BY: MH  
APPROVED BY: MH  
SCALE: AS SHOWN

SHEET TITLE:

CONCRETE REPAIRS -  
LA FOLLETTE LOCK AND DAM

SHEET NUMBER:

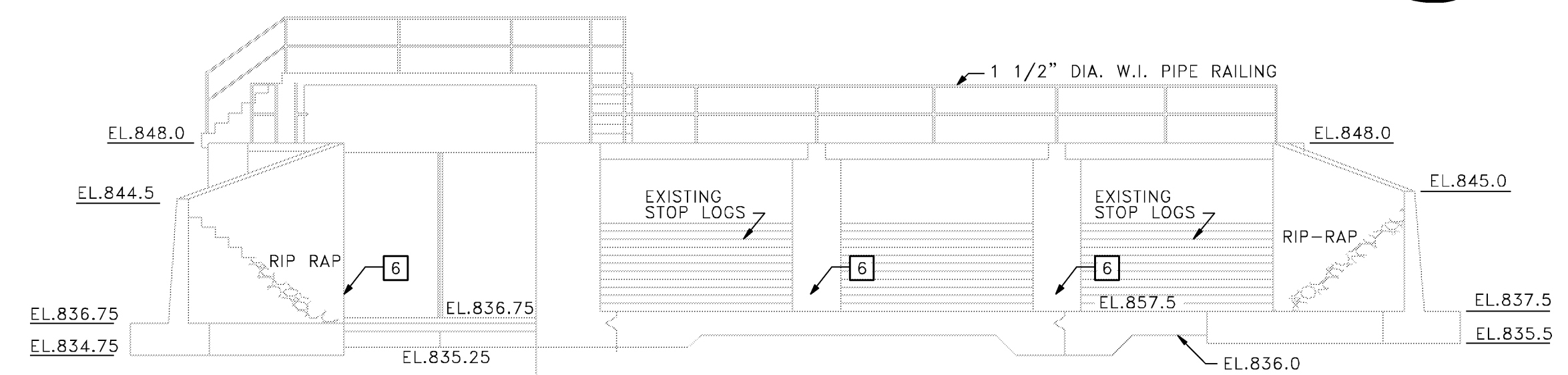


**COFFERDAM NOTES:**

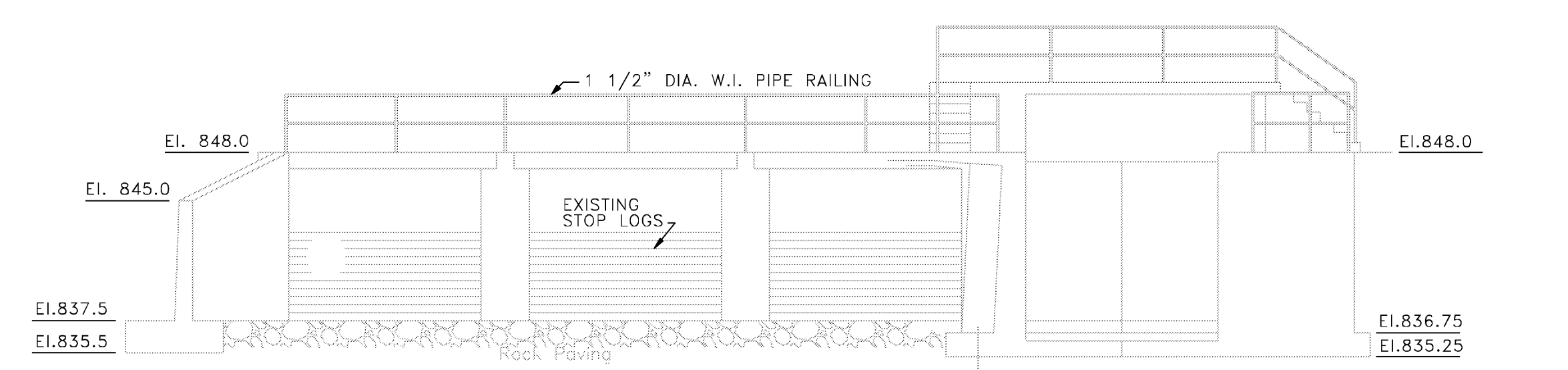
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**KEYED NOTES**

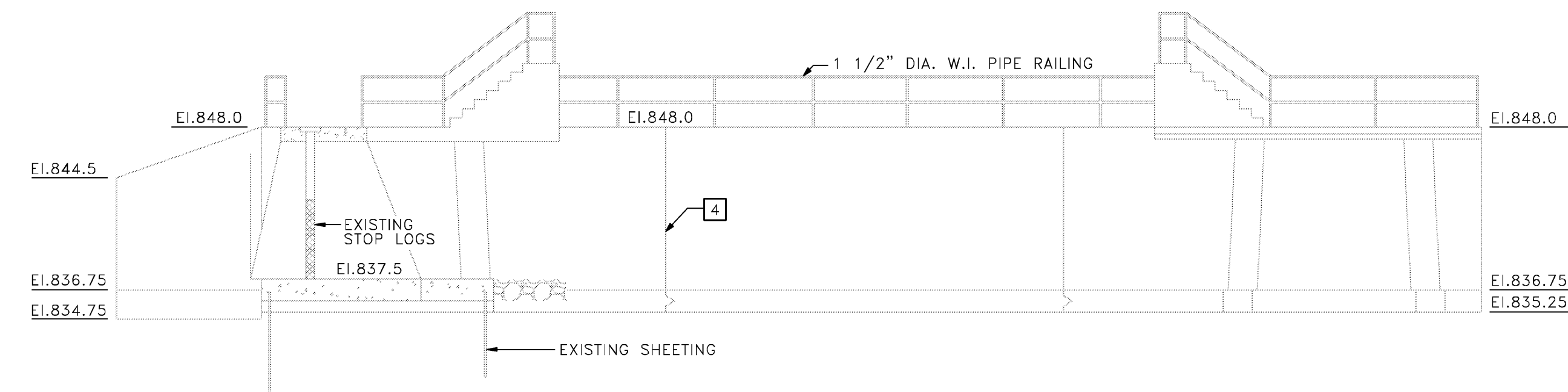
- 1 NOT USED
- 2 NOT USED
- 3 NOT USED
- 4 REPAIR EXPANSION JOINT SPALL, SEE 3/S-6
- 5 REPAIR SPALL AT TOP OF APRON, SEE 5/S-6
- 6 REPAIR SPALLED PIER FACE, SEE 6/S-6
- 7 EXTEND DOWNSTREAM END OF PIER, SEE 7/S-6



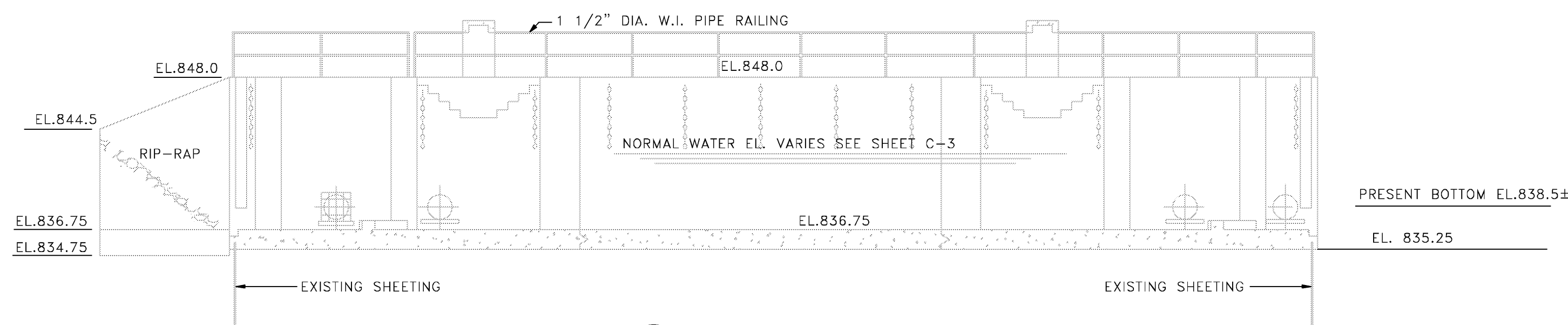
**2 UPSTREAM ELEVATION**  
N.T.S.  
NOTE: EXISTING STOP LOGS TO BE REMOVED BY OWNER



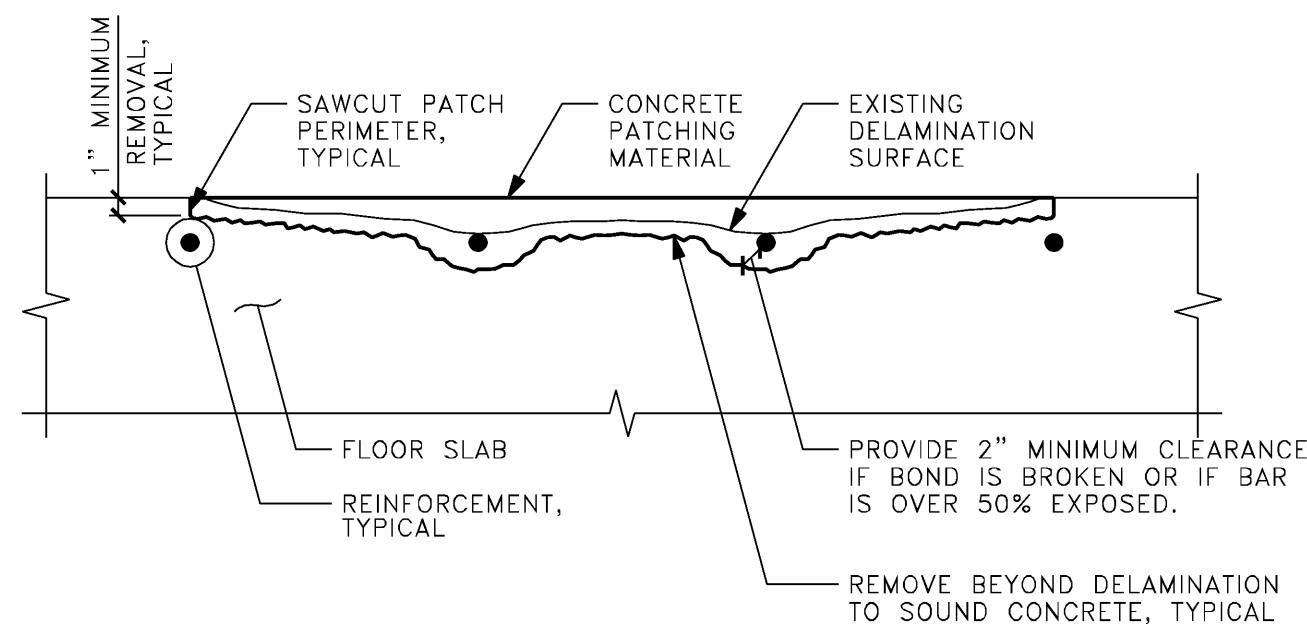
**3 DOWNSTREAM ELEVATION**  
N.T.S.



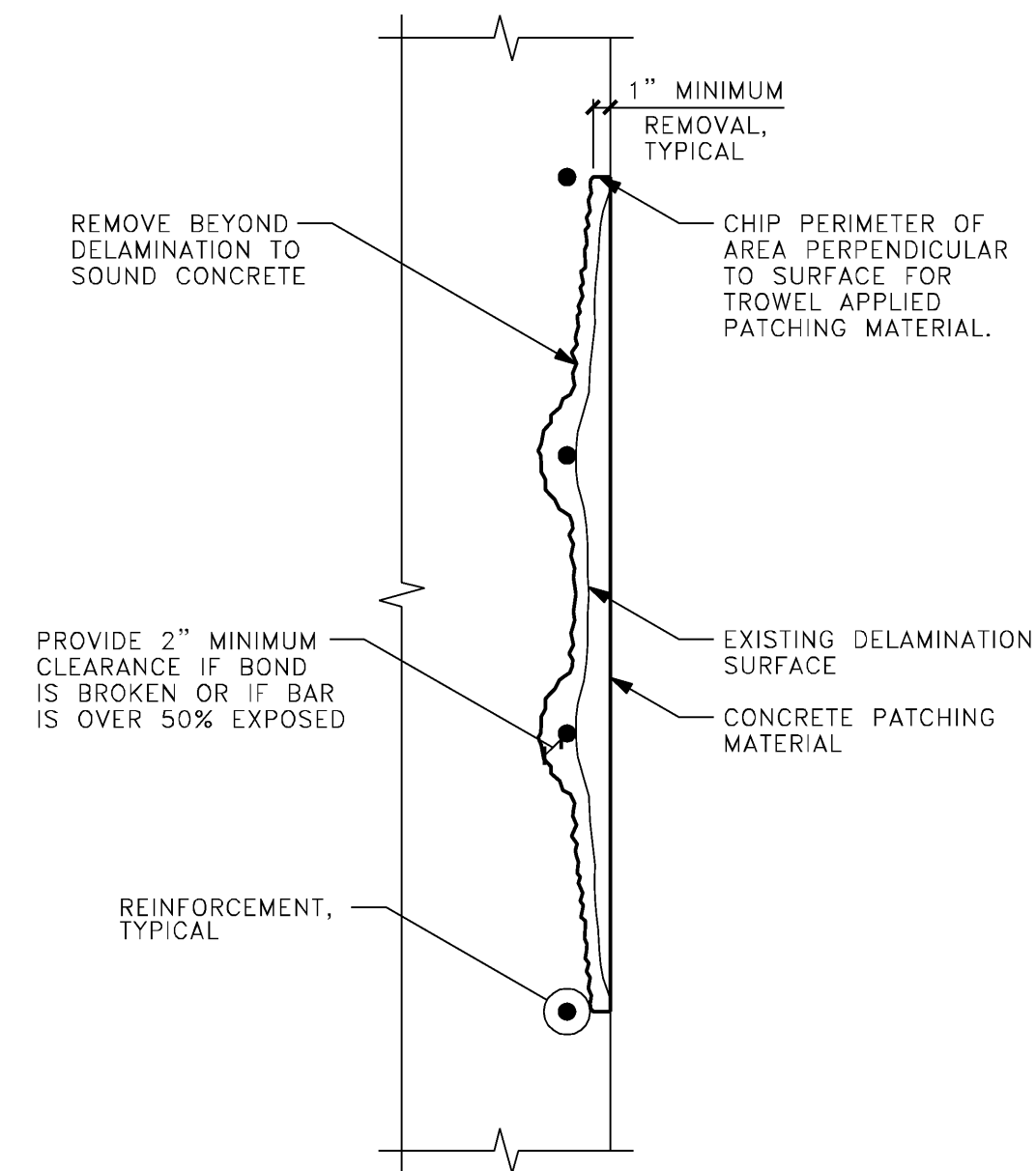
**4 SECTION**  
N.T.S.



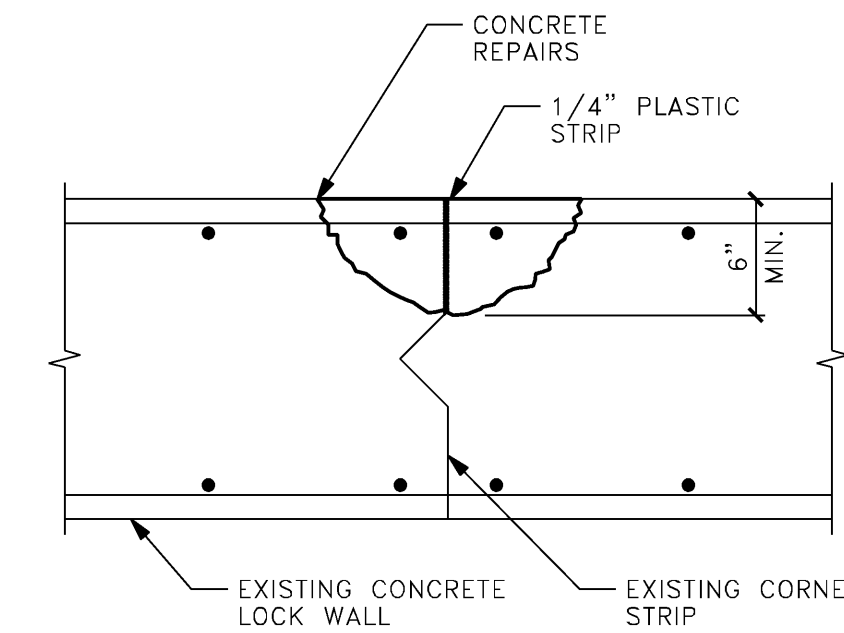
**5 SECTION**  
N.T.S.



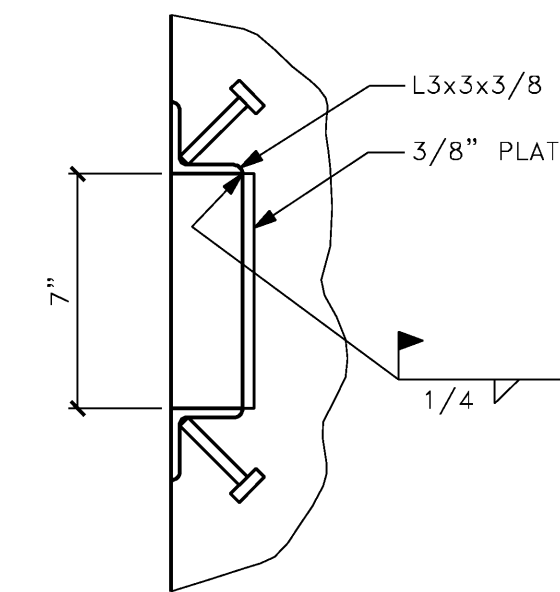
1  
S-6  
TYPICAL HORIZONTAL SPALL REPAIR DETAIL  
N.T.S.



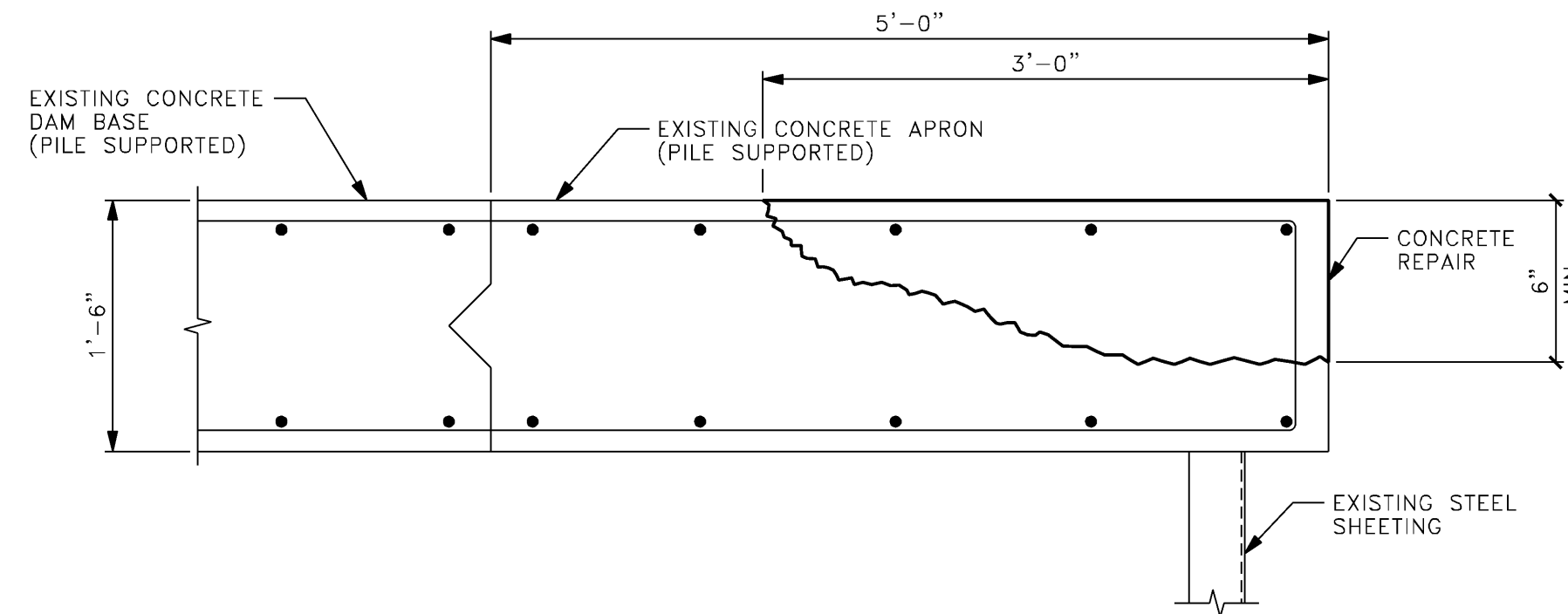
2  
S-6  
TYPICAL VERTICAL SPALL REPAIR  
N.T.S.



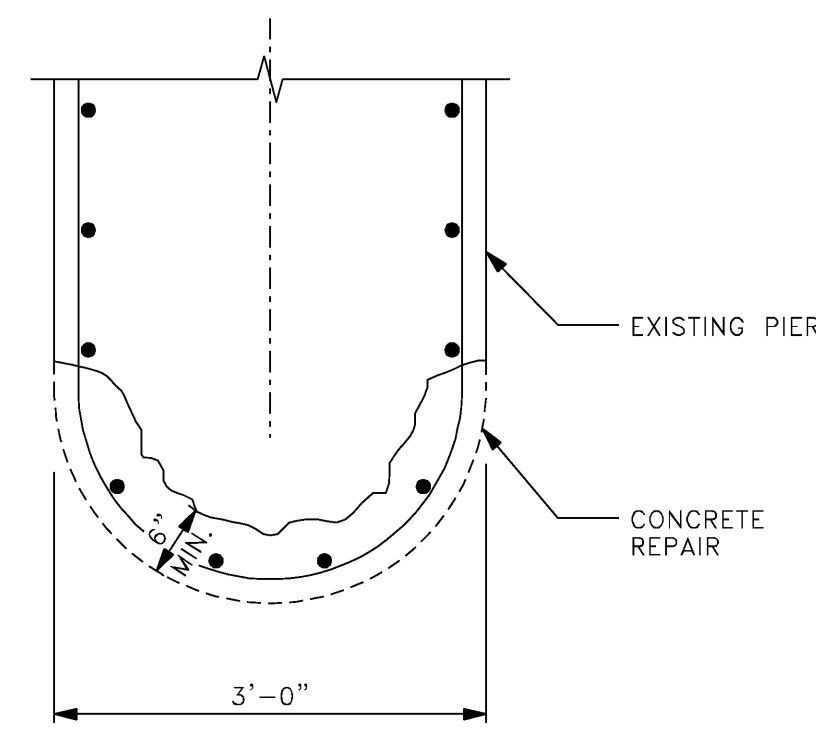
3  
S-6  
EXPANSION JOINT REPAIR  
1" = 1'-0"  
NOTE: EXPANSION JOINT SPALLS APPROXIMATELY 5'-0" TALL



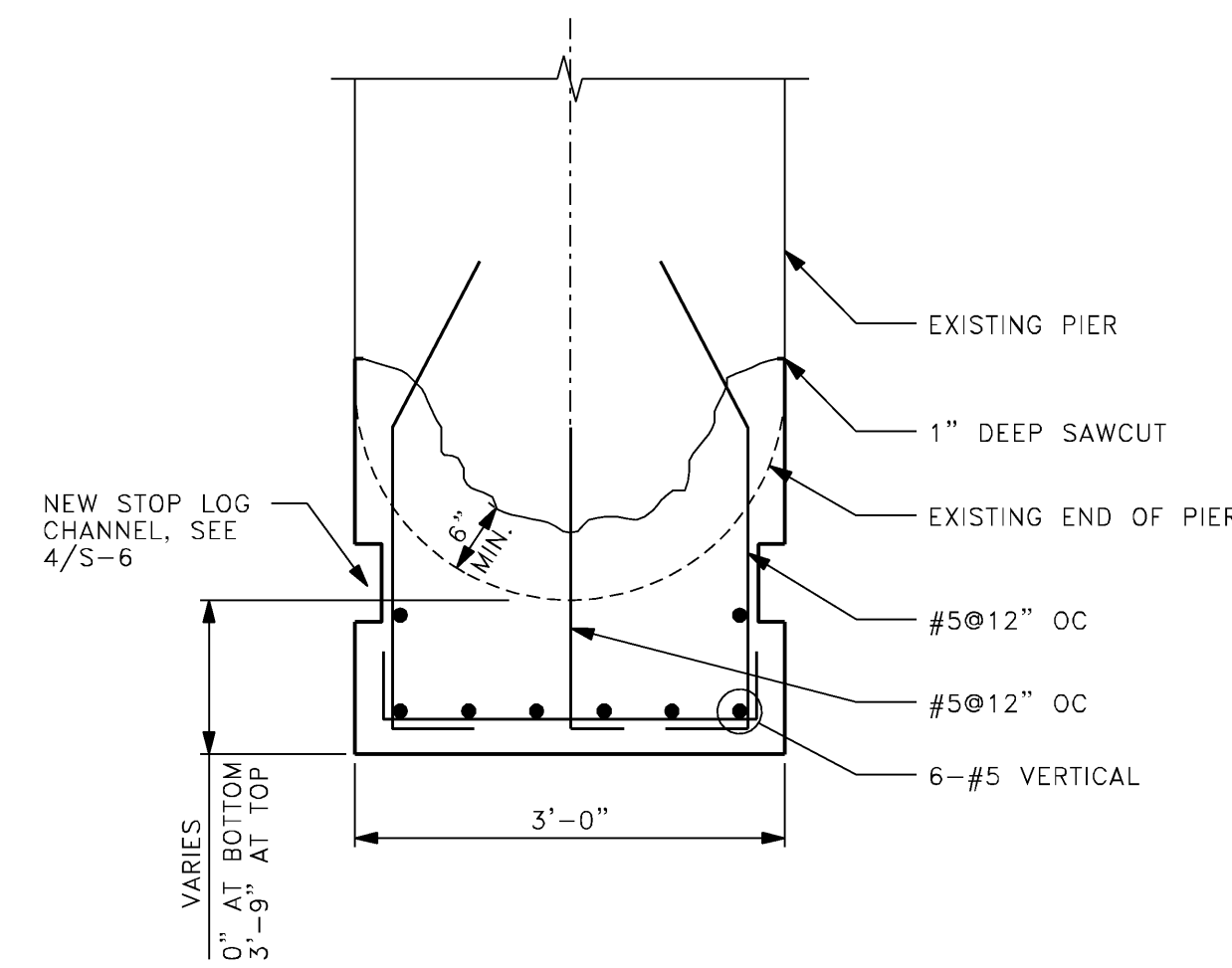
4  
S-6  
STOP LOG CHANNEL DETAIL  
3" = 1'-0"



5  
S-6  
APRON REPAIR  
1" = 1'-0"  
NOTE: DETERIORATED CONCRETE APPROXIMATELY 4'-0" LONG



6  
S-6  
PIER REPAIR DETAIL  
3/4" = 1'-0"  
NOTE: PIER SPALLS APPROXIMATELY 5'-0" TALL



7  
S-6  
PIER EXTENSION DETAIL  
3/4" = 1'-0"  
DRILL AND GROUT BAR MINIMUM 8" INTO EXISTING PIER OR BASE SLAB