



City of Rochester, N.Y.

Department of Environmental Services

# West River Wall Reconstruction Project

## 50% Design Drawings (Not For Construction)

City Project #12236

NYSDOS Contract # C007067

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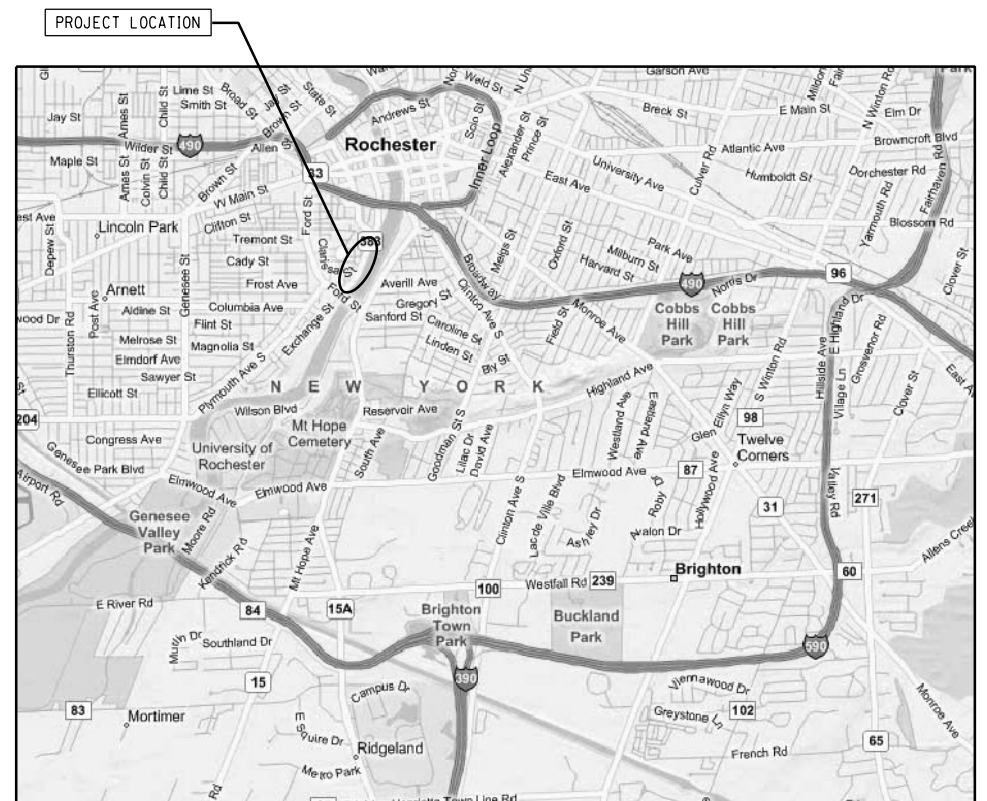
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This document was prepared for the New York State  
Department of State with funds provided under Title  
11 of the Environmental Protection Fund.



LOCATION PLAN  
N.T.S.



OVERALL LOCATION MAP  
N.T.S.



Drawing Number:

**CS - 1**

COFFERDAM NOTES

1. THE COST OF FURNISHING, INSTALLING, DEWATERING, MAINTAINING AND REMOVING ALL COFFERDAM STRUCTURES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THAT ITEM.
2. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED COFFERDAM PLANS, DETAILS, AND SCHEDULE FOR APPROVAL TO THE ENGINEER A MINIMUM OF 14 DAYS PRIOR TO ANY COFFERDAM INSTALLATION. A BRACED OR WINDOW BOX COFFERDAM HAS A REASONABLE OPPORTUNITY FOR APPROVAL BASED ON THE SCOPE OF CONSTRUCTION ACTIVITIES.
3. ALL COFFERDAMS REQUIRED FOR THE WORK SHALL BE DESIGNED BY A PROFFESIONAL ENGINEER CURRENTLY LICENSED BY THE STATE OF NEW YORK. DESIGNS SHALL TAKE INTO ACCOUNT THE ACTUAL CONDITION OF THE MATERIAL TO BE USED TO CONSTRUCT THE COFFERDAM, SHALL BE EXPECTED TO WITHSTAND WATER PRESSURE EXERTED DURING CONSTRUCTION, AND FOR ALL WORK AFTER NOVEMBER 1, 1999, SHALL ACCOMODATE A LATERAL ICE LOAD OF 5,000 POUNDS PER LINEAR FOOT APPLIED AT THE WATER SURFACE.
4. THE CONTRACTOR SHALL NOTE THAT A PORTION OF THE RIVER WALL IS FOUNDED ON THE RIVER BEDRCK, WHICH WILL INHIBIT DRIVING OF ANY SHEET PILING IN THE WORK AREA.
5. THE COFFERDAM IN ITS ENTIRETY SHALL BE REMOVED FOR DISPOSAL AS SOON AS IT IS NO LONGER NEEDED.
6. THE CONTRACTOR SHALL SUBMIT A PLAN OF THE PROPOSED METHOD OF DEWATERING THE WORK AREA, TO THE SATISFACTION OF THE ENGINEER-IN-CHARGE FOR APPROVAL ATLEAST 14 DAYS PRIOR TO ANY WORK. THE COST OF DEWATERING THE WORK AREA, REGARDLESS OF THE SOURCE OF THE WATER, SHALL BE INCLUDED IN THE COFFERDAM ITEM.
7. ANY FILL USED IN THE CONSTRUCTION OF THE COFFERDAM SHALL BE CLEAN, UNCONTAMINATED GRANULAR FILL WITH A MAXIMUM OF 10% BY WEIGHT PASSING NO. 75 MICRON SEIVE AS MEASURED IN ACCORDANCE WITH ASTM C136.

SUBSTRUCTURE NOTES

1. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE AND ADVISE THE OWNER OF THE TYPE, SIZE AND WEIGHT OF ALL VEHICLES AND EQUIPMENT HE INTENDS TO USE ON THE STRUCTURES DURING CONSTRUCTION BASED ON CONDITION OF EXISTING STRUCTURES. THIS DETERMINATION SHALL BE DETERMINED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK AND EMPLOYED AND PAID BY THE CONTRACTOR.

THE DETERMINATION BY THE PROFESSIONAL ENGINEER IS TO BE MADE PRIOR TO THE USE OF ANY VEHICLES AND EQUIPMENT ON THE STRUCTURE WITH ALL RESTRICTIONS ENUMERATED BY HIM BO STRICTLY ADHERED TO.

IN THE EVENT THE CONTRACTOR'S OR HIS SUBCONTRACTOR'S FORCES FAIL TO COMPLY WITH THE INSTRUCTIONS, OF THE PROFESSIONAL ENGINEER FOR THE USE OF ANY VEHICLE, THE WORK WILL BE IMMEDIATELY SUSPENDED UNTIL CORRECTIVE PROCEDURES SATISFACTORY TO THE PROFESSIONAL ENGINEER AND THE AUTHORITY ARE EMPLOYED.

COST OF ALL DAMAGE DIRECT, OR INDIRECT, RESULTING FROM THE PERFORMANCE OF THIS WORK SHALL BE BORNE AND SUSTAINED BY THE CONTRACTOR.

2. WELDING SHALL CONFORM TO THE MOST CURRENT NEW YORK STATE STEEL CONSTRUCTION MANUAL INCLUDING ADDENDUMS.
3. STRUCTURAL STEEL SHALL BE ASTM A709, GRADE 36, UNLESS NOTED OTHERWISE.

CONCRETE REMOVAL NOTES

1. ALL SAWCUTTING OF CONCRETE SHALL BE INCLUDED IN ITEM 580.01 UNLESS OTHERWISE NOTED. SAWCUTTING WILL BE REQUIRED FOR REPAIRS PERFORMED ON THE EXPOSED FACE OF THE EXSTING RIVER WALL.
2. BEFORE STARTING CONCRETE REMOVAL WORK THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A PLAN SHOWING HIS PROPOSED METHOD, EQUIPMENT AND SEQUENCE FOR THE REMOVAL WORK.
3. WHERE A MINIMUM DEPTH OF CONCRETE REMOVAL IS SPECIFIED ON THE PLANS, THE CONTRACTOR SHALL REMOVE TO THIS MINIMUM DEPTH AND SHALL BE PAID FOR CONCRETE REMOVAL ONLY TO THE MINIMUM DEPTH SHOWN ON THE PLANS. ANY CONCRETE REMOVAL BEYOND THOSE LIMITS SHALL BE AT NO COST TO THE AUTHORITY UNLESS PRIOR APPROVAL FOR ADDITIONAL REMOVAL HAS BEEN GRANTED BY THE EIC. NO PAYMENT WILL BE MADE FOR ADDITIONAL CONCRETE, REINFORCING BARS, ANCHOR BOLT LENGTHS, OR DRILLING AND GROUTING COST CAUSED BY THE CONTRACTOR'S EXTRA REMOVAL OF CONCRETE BEYOND THE MINIMUM DEPTH SHOWN ON THE PLANS UNLESS PRIOR APPROVAL FOR THE ADDITIONAL REMOVAL HAS BEEN GRANTED BY THE EIC.
4. CHIPPING HAMMERS USED TO REMOVE CONCRETE SHALL NOT EXCEED 40 POUNDS IN WIEGHT WITH THE BIT REMOVED. IF THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS ARE RESULTING IN DAMAGE TO THE CONCRETE THAT IS TO REMAIN, THE CONTRACTOR SHALL MAKE IMMEDIATE CORRECTIONS. THESE CORRECTIONS SHALL INCLUDE THE USE OF A LIGHTER CHIPPING HAMMER IF SO ORDERED BY THE ENGINEER.
5. HOE RAMS CAN BE USED TO REMOVE CONCRETE. HOWEVER, IF THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS ARE RESULTING IN DAMAGE TO CONCRETE THAT IS TO REMAIN, THE CONTRACTOR SHALL MAKE IMMEDIATE CORRECTIONS. THESE CORRECTIONS SHALL INCLUDE THE USE OF LIMITED WEIGHT BREAKERS OR CHIPPING HAMMERS IF SO DIRECTED BY THE ENGINEER.

CONCRETE NOTES

1. THE MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3,000 PSI AT 28 DAYS FOR CAST-IN-PLACE CONCRETE AND MINIMUM COMPRESSIVE STRENGTH OF 7,000 PSI AT 28 DAYS FOR PRECAST UNITS.
2. ALL EXPOSED CAST-IN-PLACE CONCRETE EDGES SHALL BE CHAMFERED 1-INCH UNLESS OTHERWISE NOTED.
3. ALL FORMING HARDWARE SUCH AS TIES AND SUPPORT STEEL THAT ARE TO REMAIN IN CONCRETE SHALL BE GALVANIZED OR DIELECTRIC. COST TO BE INCLUDED IN THE PRICE BID FOR THE CONCRETE ITEMS.
4. NO CONSTRUCTION JOINT SHALL BE MOVED, ADDED OR REMOVED WITHOUT PERMISSION OF THE ENGINEER.
5. FINISHING CAST-IN-PLACE SURFACES: IMMEDIATELY AFTER FORMS HAVE BEEN REMOVED, SURFACES EXPOSED TO VIEW SHALL HAVE ALL PROJECTIONS AND IRREGULARITIES REMOVED AND ALL CAVITIES NEATLY FILLED WITH MORTAR OF THE PROPORTIONS USED IN THE CONCRETE. THE SURFACE AND FINISH AND COLOR SHALL MATCH THE SURFACE FINISH AND COLOR OF THE ADJOINING CONCRETE, ALL OTHER REQUIREMENTS OF SUBSECTION 555-3.08 OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
6. MAXIMUM AGGREGATE SIZE FOR INFILL CONCRETE BEHIND PRECAST UNITS SHALL BE ½".

REINFORCEMENT NOTES

1. ALL FABRIC AND BAR REINFORCEMENT SHALL BE ASTM A497 GRADE 75 AND A615 GRADE 60, MEETING THE REQUIREMENTS OF MATERIAL SPECIFICATION 709.02 AND 709.01 RESPECTIVELY. PAYMENT SHALL BE MADE UNDER ITEM 25556.98 (GALVANIZED FABRIC REINFORCEMENT FOR STRUCTURES) AND ITEM 25556.99 (GALVANIZED BAR REINFORCEMENT FOR STRUCTURES).
2. EXPOSED REINFORCING STEEL WHICH IS TO REMAIN IN THE STRUCTURE SHALL BE PROTECTED FROM DAMAGE AND SANDBLAST CLEANED TO THE SATISFACTION OF THE ENGINEER OR OTHERWISE BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. ALL METAL REINFORCING BAR CHAIRS SHALL HAVE PLASTIC SHOES.
4. THE MINIMUM COVER REQUIREMENT FOR ALL REINFORCEMENT SHALL BE 2" UNLESS INDICATED OTHERWISE.

ENVIRONMENTAL PROTECTION NOTES

1. THE CONTRACTORS ATTENTION IS DIRECTED TO THE "COFFERDAM AND WATERWAY CONSERVATION NOTES" FOUND IN THE PROPOSAL.
2. VISUABLY TURBID DISCHARGES FROM DEWATERING OPERATIONS OF EXCAVATION ACTIVITIES SHALL NOT BE ALLOWED TO ENTER THE RIVER. ANY SUCH DISCHARGE SHALL BE (1) RETAINED IN AN APPROPRIATELY MAINTAINED UPLAND SETTTLING BASIN, OR (2) FILTERED THROUGH CRUSHED STONE, SAND, HAY BALES, SILT SCREENING (EQUIVALENT OPENING SIZE OF U.S SIEVE NUMBER 20).
3. ALL NECESSEY PRECAUTIONS SHALL BE TAKEN TO PREVENT THE ENTRANCE OF FRESH CONCRETE INTO THE WATERS OF NEW YORK STATE. EQUIPMENT, TOOLS, AND TRUCKS USED IN THIS PROJECT SHALL BE CLEANED IN SUCH A MANNER AS TO PREVENT WASH WATER FROM ENTERING THE RIVER.
4. SPILLAGE OF OIL AND HAZARDOUS SUBSTANCES IS ESPECIALLY PROHIBITTED BY SECTION 311 OF THE CLEAN WATER ACT OF 1977. MEASURES INCLUDING PROPER MAINTENANCE OF CONSTRUCTION EQUIPMENT, DESIGNATING FUEL/HAZARDOUS SUBSTANCES HANDLING AREAS TO ALLOW SPILLS TO BE CONTAINED BEFORE REACHING THE WATERWAY, INSTRUCTING PERSONELL NOT TO DISPOSE OIL, AND OTHER SUCH MATERIALS INTO DRAINS OR INTO THE WATERWAY DIRECTLY, AND OTHER NECESSARY PROCEDURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION ACTIVITIES. IF IN SPIE OF SUCH PLANNING, OIL/HAZARDOUS SUBSTANCES ARE SPILLED INTO A WATERCOURSE, IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE N.Y.S DEPARTMENT OF ENVIRONMENTAL CONSERVATION AT TELEPHONE NUMBER 518-457-7362 AND THE NATIONAL RESPONSE CENTER AT TELEPHONE NUMBER (1-800-424-8802. A CONTAINMENT BOOM AND SUPPLY OF HAY, STRAW, OR OTHER ABSORBENT SHOULD BE RETAINED SO THAT IT MAY BE RAPIDLY DEPLOYED TO SOAK UP ANY POSSIBLE SPILLAGE, PENDING DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND/OR COAST GUARD ARRIVAL ON THE SCENE. THE USE OF CHEMICAL DISPERSING AGENTS AND EMULSIFIERS IS NOT AUTHORIZED WITHOUT PRIOR, SPECIFIC, FEDERAL OR STATE APPROVAL.

ELEVATION OF GROUND WATER

1. THE ELEVATION OF GROUND WATER AT THE SITE MAY VARY. THE CONTRACTOR SHALL MAKE PROVISIONS FOR KEEPING THE EXCAVATION FREE FROM WATER, SNOW AND ICE DURING CONSTRUCTION. THE COST SHALL BE INCLUDED IN THE PRICE BID FOR THE ITEMS STATED ABOVE.

SURVEY NOTES

1. HORIZONTAL DATUM IS REFERENCED TO THE NAVD83 (2011) - NYSPCS, WEST ZONE. VERTICAL DATUM IS REFERENCED TO THE ROCHESTER TOPOGRAPHIC SURVEY. THE CONTOUR INTERVAL IS 1 FOOT. PROJECT UNITS ARE IN U.S. SURVEY FEET.
2. UNDERGROUND UTILITIES OR FEATURES SHOWN HEREON WERE PLOTTED FROM OBSERVED SURFACE FEATURES, UTILITY COMPANY REFERENCE PLANS, OR OTHER PROJECT RECORD DRAWINGS. THE LOCATION OF ALL UTILITIES, OR OTHER UNDERGROUND FEATURES, SHOULD BE STAKED AND VERIFIED BY THE RESPECTIVE UTILITY COMPANY OR FEATURE OWNER PRIOR TO ANY CONSTRUCTION.
3. THE 12"/18" VITRIFIED SEWER AND 6" VITRIFIED PIPE WERE PLOTTED FROM A PLAN ENTITLED, "CONTRACT NO. 59, ERIE CANAL, SECTION 9, AT ROCHESTER, PROFILE AND TYPICAL CROSS SECTION OF THE WALL ALONG WEST BANK OF RIVER," DATED JULY 28, 1916. PLAN SHOWS MANHOLE STRUCTURES ALONG PIPE RUNS, BUT NO MANHOLES WERE OBSERVED IN THE FIELD.
4. THE 36" VCP AND 7'-6" BY 4'-0" TUNNEL WERE PLOTTED FROM A PLAN ENTITLED, "FORD STREET BRIDGE OVER GENESEE RIVER, B.I.N. 4443800 AND B.I.N. 2211570," PREPARED BY BERGMANN ASSOCIATED FOR THE CITY OF ROCHESTER, LAST REVISED MARCH 2002, WITH DRAWING NUMBERS 'P-1' AND 'P-2', SHEETS 26 AND 27 OF 139). NO FIELD EVIDENCE OF THESE STRUCTURES WAS OBSERVED, AND THE TUNNEL TERMINUS UNDER, OR ACROSS THE RIVER IS UNKNOWN.

GRADING/EROSION CONTROL NOTES

1. ALL PROPOSED ELEVATIONS SHOWN HEREON ARE FINISHED GRADE ELEVATIONS.
2. ALL DISTURBED AND CONSTRUCTED SLOPE AREAS TO BE SEEDED IMMEDIATELY AFTER CONSTRUCTION HAS BEEN COMPLETED (SEE DRAWING FOR SEED MIXTURES)
3. INSTALL UTILITIES, PREVENT SEDIMENTS FROM ENTERING SEWERS BY INSTALLING STRAW BALES AND/OR FILTER FABRIC AROUND INLETS AS SHOWN ON PLANS.
4. TOPSOIL SHALL BE SPREAD TO A 4" THICKNESS TO BRING THE SITE TO FINISHED GRADE ELEVATIONS IN ALL AREAS TO BE SEEDED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING TIM ELEVATIONS IN RELATION TO PROPOSED GRADE PRIOR TO INSTALLATION.
6. ALL BURB UNLETS, FIELD INLETS, END SECTIONS AND OTHER SIMILAR DRAINAGE INLET STRUCTURES SHALL BE PROTECTED FROM SILTATION BY STAKED BALES AND FILTER FABRIC OR OTHER AUTHORITY APPROVED EROSION CONTROL MEASURES.
7. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY OF THEIR TIME SCHEDULED IN REGARD TO CLEARING, STRIPPING AND EROSION CONTROL TO PROVIDE FOR PROPER AUTHORITY INSPECTION.
8. INSTALL A STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON PLANS OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
9. EROSION CONTROL DEVICES TO BE ESTABLISHED PRIOR TO COMMENCING EARTHWORK, EROSION CONTROL DEVICES TO BE MAINTAINED BY THE CONTRACTOR UNTIL UPSTREAM GROUNDCOVER HAS BEEN ESTABLISHED AND REMOVAL IS APPROVED BY THE AUTHORITY.
10. STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN ON PLANS OR AS DIRECTED BY OWNERS REPRESENTATIVE. THE PILE(S) SHALL BE TEMOPRARILY SEEDED IF NOT USED WITHIN 14 DAYS. STOCKPILED TOPSOIL MAY BE REUSED AS EMBANKMENT-IN-PLACE AND PAID FOR UNDER ITEM 203.03.
11. DISTURBED AREAS SHALL BE AS SMALL AS PRACTICAL, AND SHALL BE RESTORED, IMPROVED OR TEMPORARILY STABILIZED AS SOON AS POSSIBLE.
12. CONTRACTOR SHALL TAKE THE NECESSARY MEASURES, INCLUDING WATER SPRINKLING TO PROVIDE DUST CONTROL DURING CONSTRUCTION.
13. ALL DISTURBED AREAS WHICH WILL NOT BE WORKED WITHIN 21 DAYS MUST BE SEEDED WITHIN 14 DAYS.

PROTECTION OF EXISTING TREES

1. THE CONTRACTOR SHALL EXERCISE CARE DURING CONSTRUCTION TO PROTECT THE EXISTING TREES AND THEIR ROOT SYSTEMS, WHERE TRESS ARE TO REMAIN. IF ROOTS ARE ENCOUNTERED, THEY SHALL BE CUT AND DRESSED IN ACCORDANCE WITH ACCEPTABLE CUTTING AND REPAIR PROCEDURES AS DIRECTED BY THE ENGINEER. IF THE DAMAGE OCCURS AND IS IRREPARABLE, THE TREES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE ENGINEER.
2. ANY TREES REMOVED FROM BEYOND THE DESIGNATED CLEARING LIMITS SHALL BE REPLACED AT A 2:1 RATIO.

NOTE TO FUTURE PLAN DEVELOPER

THESE DRAWINGS ARE INTENDED TO PROVIDE A 50% LEVEL OF DETAIL ASSOCIATED WITH THE WEST RIVER WALL RECONSTRUCTION AND FOCUS PRIMARILY ON ELEMENTS PERTAINING TO RECONSTRUCTION OF THE WALL AND OR CONSTRUCTION OF THE LEVEE SYSTEM ITSELF. FEATURES SHOWN TO THE LANDSIDE OF THE WALL ON THESE DRAWINGS, SUCH AS TRAILS, PLAZA AREAS, LANDSCAPING ELEMENTS, LIGHTING AND ROADWAY MODIFICATIONS, FOR EXAMPLE, SHOULD BE CONSIDERED ILLUSTRATIVE IN NATURE AND ARE SHOWN TO REFLECT THE MASTER PLAN DEVELOPED FOR THE PROJECT AREA. AT THE TIME OF DEVELOPMENT FOR THESE DRAWINGS, IT WAS NOT KNOWN WHAT THE EXACT LIMITS OF WORK WOULD INCLUDE OR HOW THE WORK WOULD BE ADMINISTERED BETWEEN THE CITY OF ROCHESTER AND THE NYSCC.

INDEX OF DRAWINGS		
SHT. NO.	DWG. NO.	TITLE
1	CS-1	COVER SHEET
2	G-1	GENERAL NOTES AND INDEX OF DRAWINGS
3	PE-1	PROPOSED PLAN & ELEVATION-1
4	PE-2	PROPOSED PLAN & ELEVATION-2
5	PE-3	PROPOSED PLAN & ELEVATION-3
6	PE-4	PROPOSED PLAN & ELEVATION-4
7	PE-5	PROPOSED PLAN & ELEVATION-5
8	PE-6	PROPOSED PLAN & ELEVATION-6
9	PE-7	PROPOSED PLAN & ELEVATION-7
10	PE-8	PROPOSED PLAN & ELEVATION-8
11	S-1	TYPICAL WALL REMOVAL SECTIONS
12	S-2	TYPICAL WALL RECONSTRUCTION SECTIONS
13	S-3	TYPICAL PROPOSED CROSS-SECTIONS
14	S-4	TYPICAL WALL DETAILS
15	MD-1	MISCELLANEOUS DETAILS - 1
16	MD-2	MISCELLANEOUS DETAILS - 2

WEST  
RIVER WALL  
RECONSTRUCTION  
CITY OF ROCHESTER  
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Date

GENERAL NOTES AND  
INDEX OF DRAWINGS

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Project Manager:

A.J.R.

Designed By:

J.M.R.

Drawn By:

T.S.H.

Checked By:

D.T.G.

Drawing Number:

Project Number:

12236

Date Issued:

JAN 2015

Scale:

NONE

G-1

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**PROPOSED PLAN  
AND ELEVATION - 1**

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Project Manager:  
A.J.R.

Designed By:  
J.M.R.

Drawn By:  
T.S.H.

Checked By:  
D.T.G.

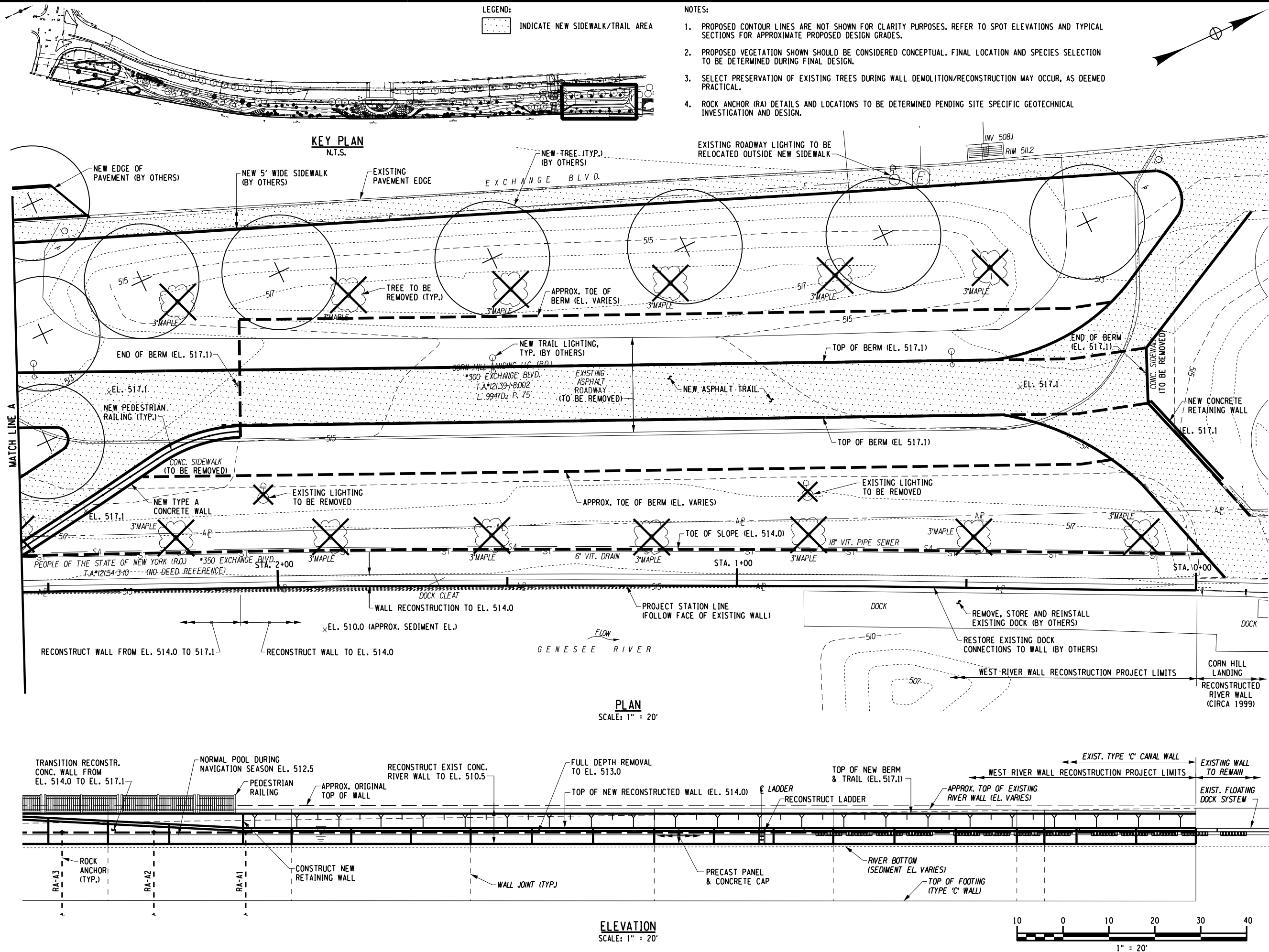
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Project Number:  
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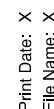
Date Issued:  
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Scale:  
1" = 20'

**PE-1**



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**PROPOSED PLAN  
AND ELEVATION - 3**

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Project Manager:  
A.J.R.

Designed By:  
J.M.R.

Drawn By:  
T.S.H.

Checked By:  
D.T.G.

Drawing Number:

Project Number:  
12236

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Scale:  
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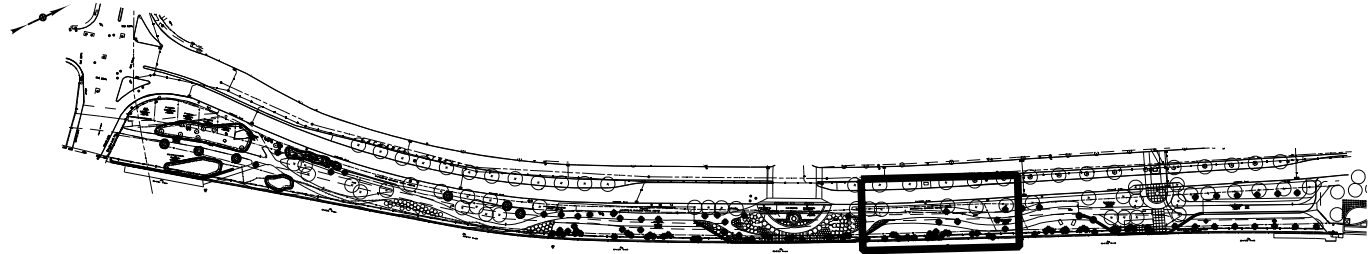
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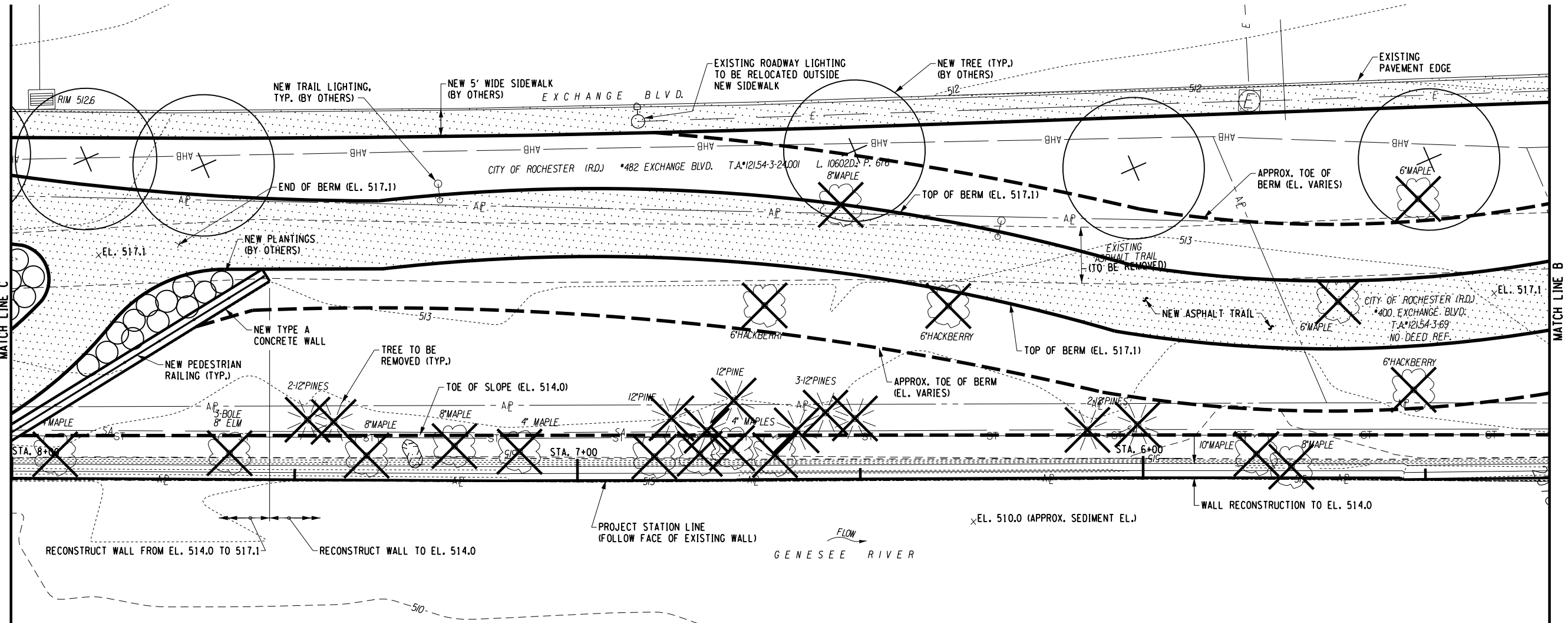
1. PROPOSED CONTOUR LINES ARE NOT SHOWN FOR CLARITY PURPOSES. REFER TO SPOT ELEVATIONS AND TYPICAL SECTIONS FOR APPROXIMATE PROPOSED DESIGN GRADES.
2. PROPOSED VEGETATION SHOWN SHOULD BE CONSIDERED CONCEPTUAL. FINAL LOCATION AND SPECIES SELECTION TO BE DETERMINED DURING FINAL DESIGN.
3. SELECT PRESERVATION OF EXISTING TREES DURING WALL DEMOLITION/RECONSTRUCTION MAY OCCUR, AS DEEMED PRACTICAL.
4. ROCK ANCHOR (RA) DETAILS AND LOCATIONS TO BE DETERMINED PENDING SITE SPECIFIC GEOTECHNICAL INVESTIGATION AND DESIGN.

LEGEND:

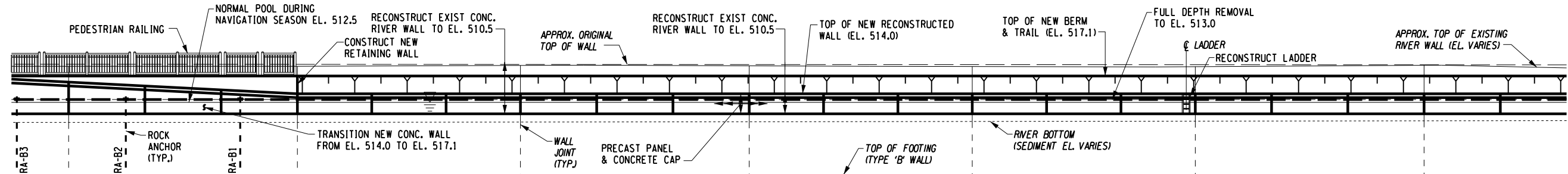
INDICATE NEW SIDEWALK/TRAIL AREA



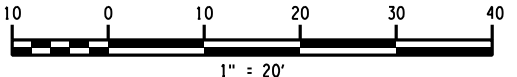
KEY PLAN  
N.T.S.



PLAN  
SCALE: 1" = 20'



ELEVATION  
SCALE: 1" = 20'





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PROPOSED PLAN  
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A.J.R.

Designed By:  
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Drawn By:  
T.S.H.

Checked By:  
D.T.G.

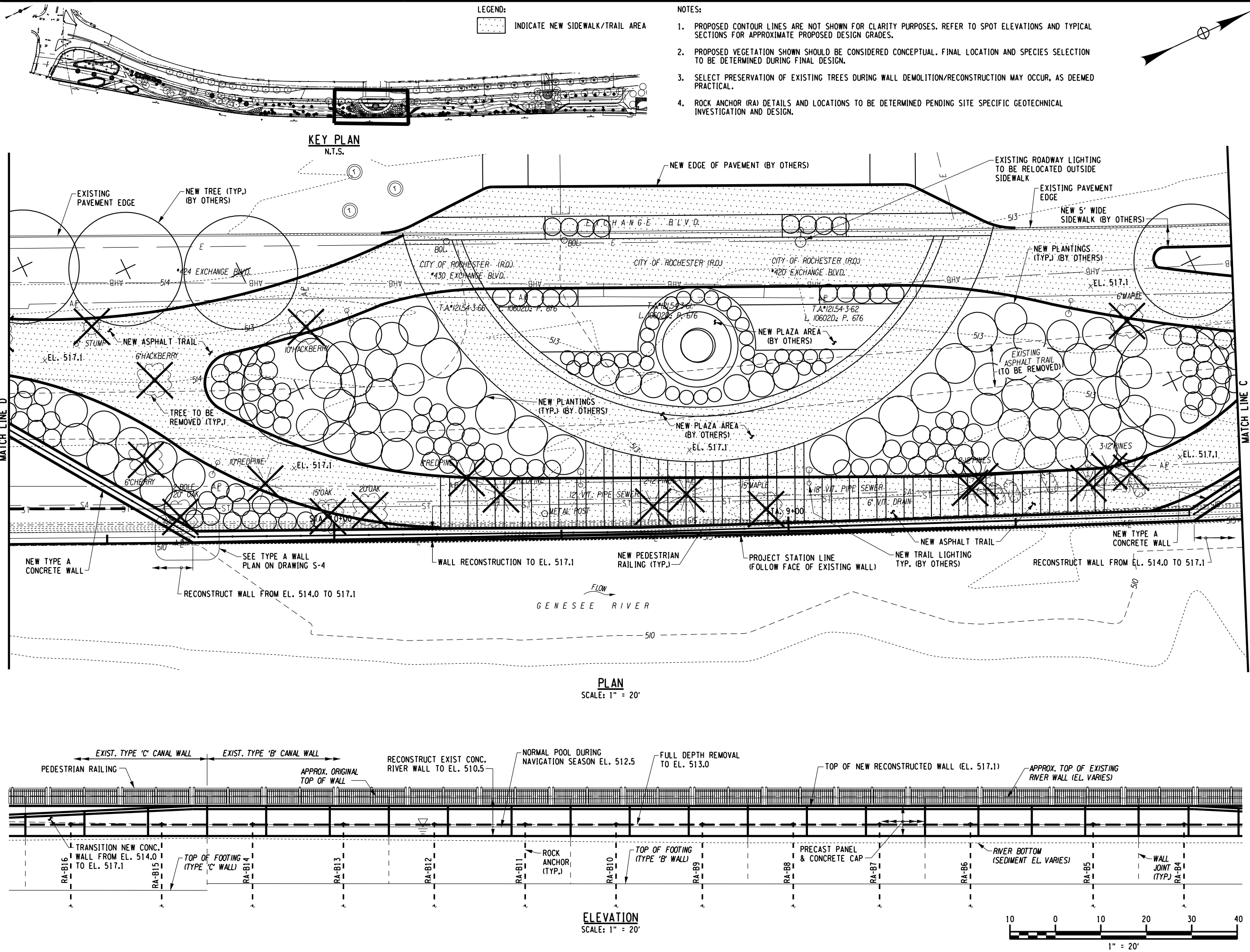
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PE-4



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		DESCRIPTION	REV. CK'D

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**PROPOSED PLAN  
AND ELEVATION - 5**

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Project Manager:

A.J.R.

Designed By:

J.M.R.

Drawn By:

T.S.H.

Checked By:

D.T.G.

Drawing Number:

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Date Issued:

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Scale:

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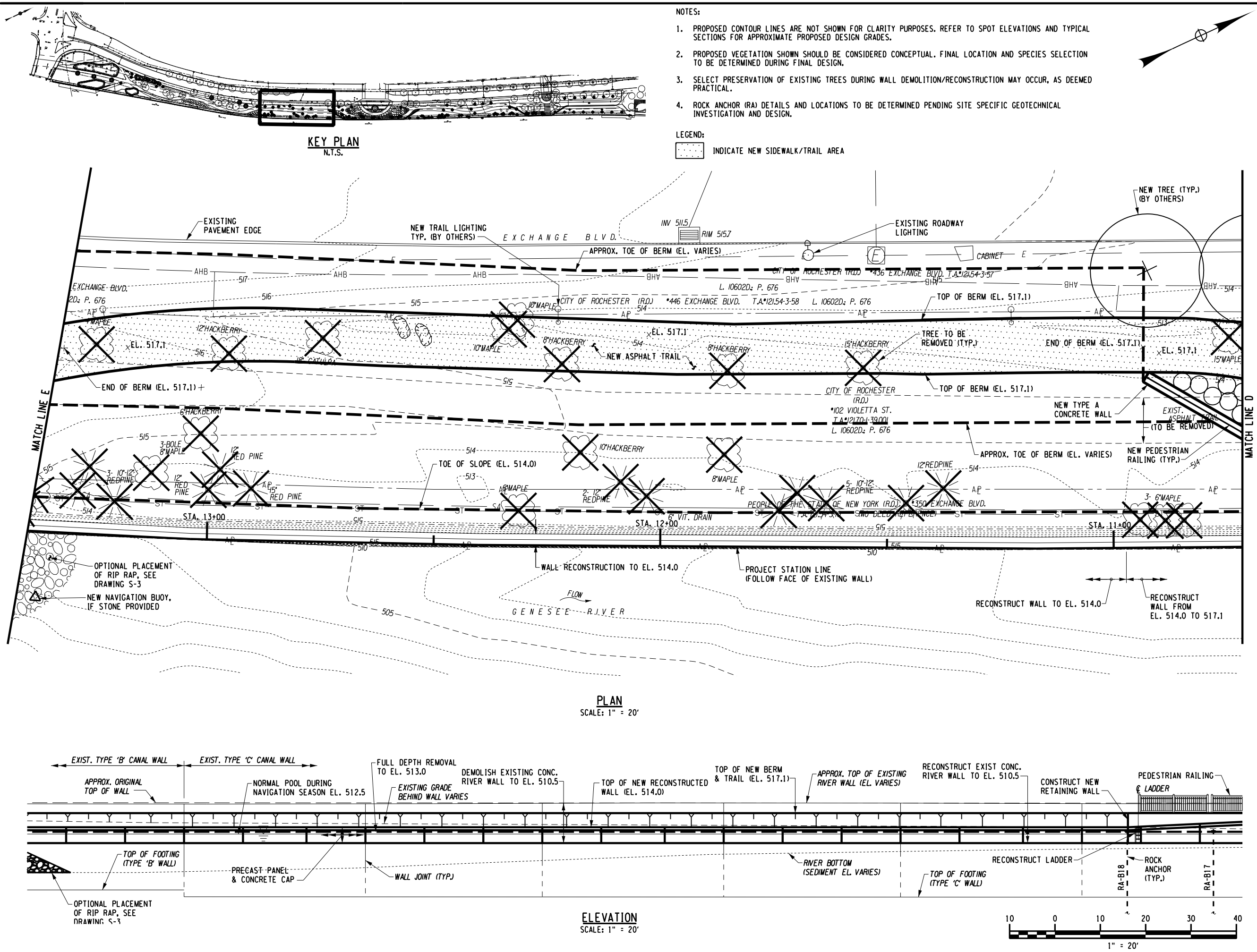
**PE-5**

NOTES:

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4. ROCK ANCHOR (RA) DETAILS AND LOCATIONS TO BE DETERMINED PENDING SITE SPECIFIC GEOTECHNICAL INVESTIGATION AND DESIGN.

LEGEND:

INDICATE NEW SIDEWALK/TRAIL AREA



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**PROPOSED PLAN  
AND ELEVATION - 6**

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Project Manager:

A.J.R.

Designed By:

J.M.R.

Drawn By:

T.S.H.

Checked By:

D.T.G.

Drawing Number:

Project Number:

12236

Date Issued:

JAN 2015

Scale:

1" = 20'

**PE-6**

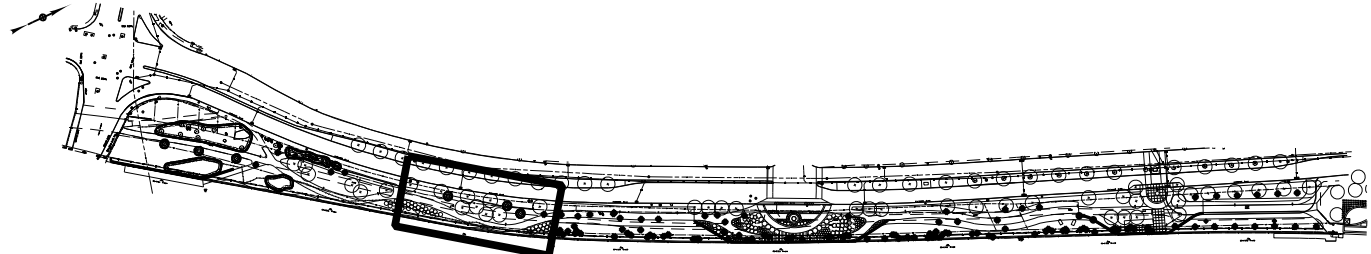
8 of 16

NOTES:

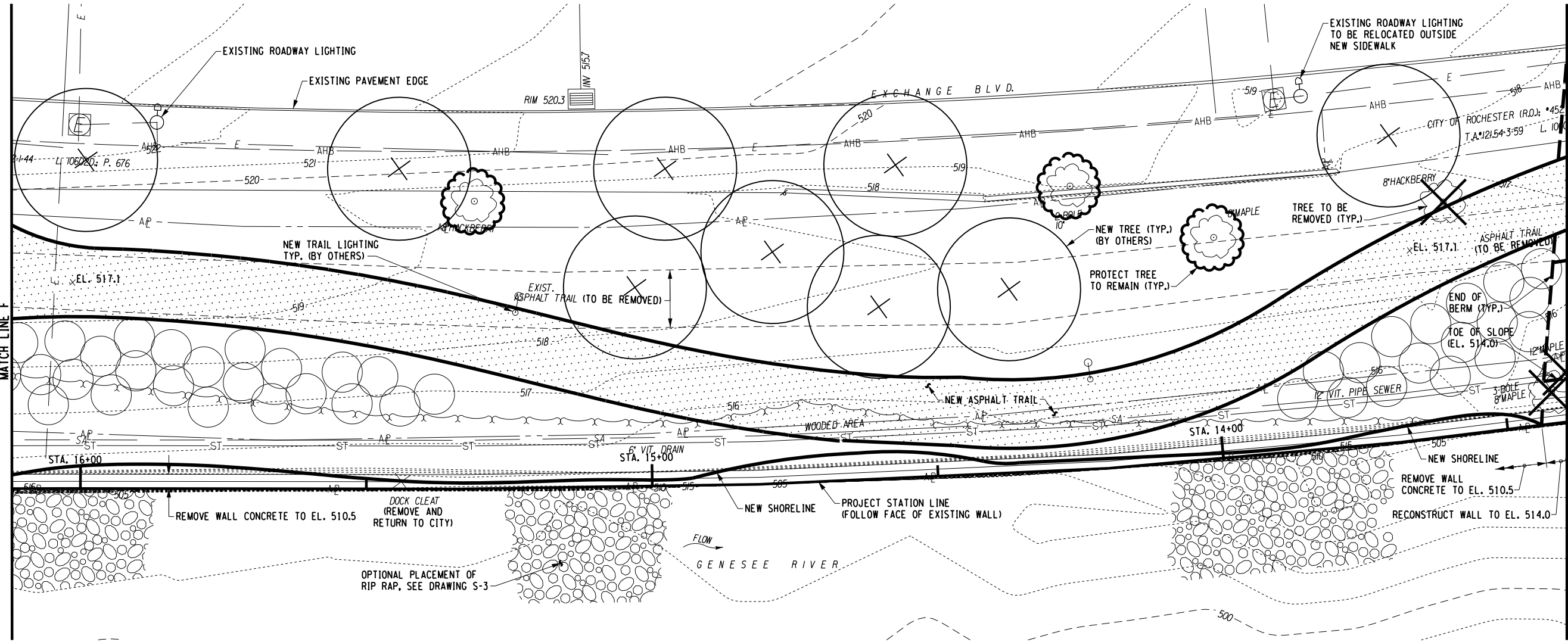
1. PROPOSED CONTOUR LINES ARE NOT SHOWN FOR CLARITY PURPOSES. REFER TO SPOT ELEVATIONS AND TYPICAL SECTIONS FOR APPROXIMATE PROPOSED DESIGN GRADES.
2. PROPOSED VEGETATION SHOWN SHOULD BE CONSIDERED CONCEPTUAL. FINAL LOCATION AND SPECIES SELECTION TO BE DETERMINED DURING FINAL DESIGN.
3. SELECT PRESERVATION OF EXISTING TREES DURING WALL DEMOLITION/RECONSTRUCTION MAY OCCUR, AS DEEMED PRACTICAL.

LEGEND:

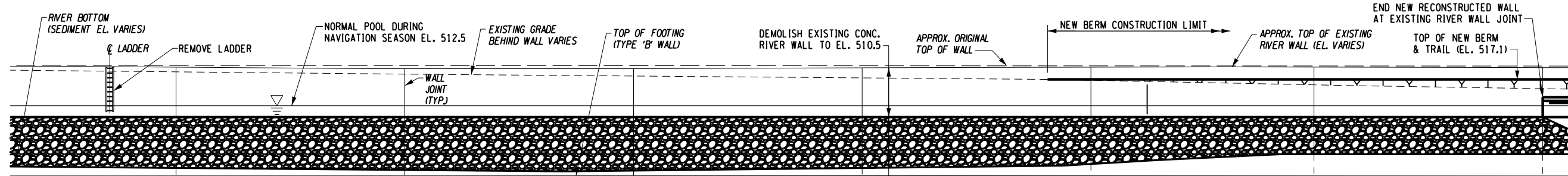
INDICATE NEW SIDEWALK/TRAIL AREA



KEY PLAN  
N.T.S.

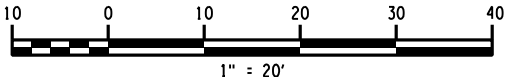


PLAN  
SCALE: 1" = 20'



OPTIONAL PLACEMENT OF  
RIP RAP, SEE DRAWING S-3

ELEVATION  
SCALE: 1" = 20'





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PROPOSED PLAN  
AND ELEVATION - 7

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T.S.H.

Checked By:

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Drawing Number:

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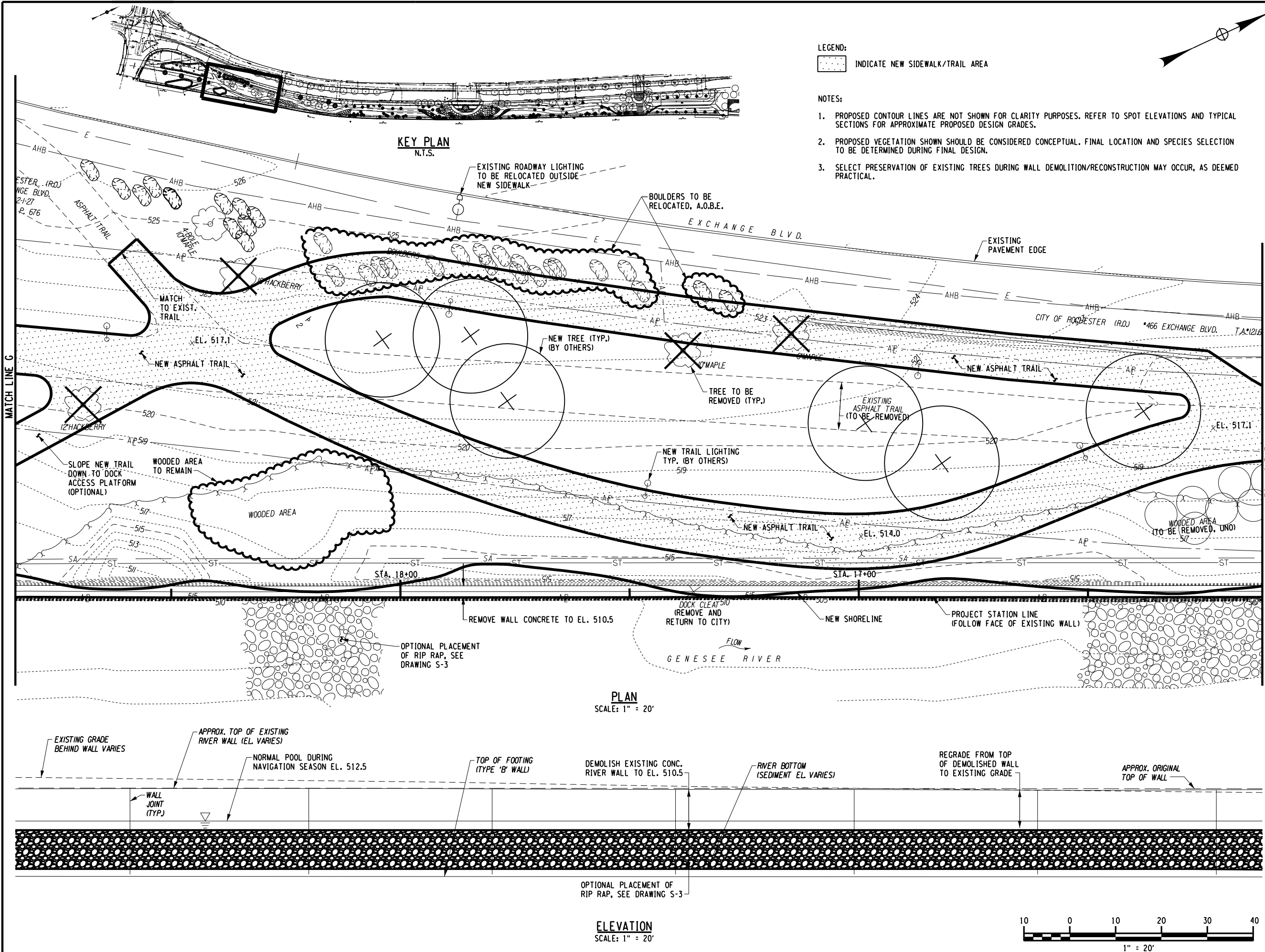
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PE-7



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**PROPOSED PLAN  
AND ELEVATION - 8**

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Designed By:

J.M.R.

Drawn By:

T.S.H.

Checked By:

D.T.G.

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12236

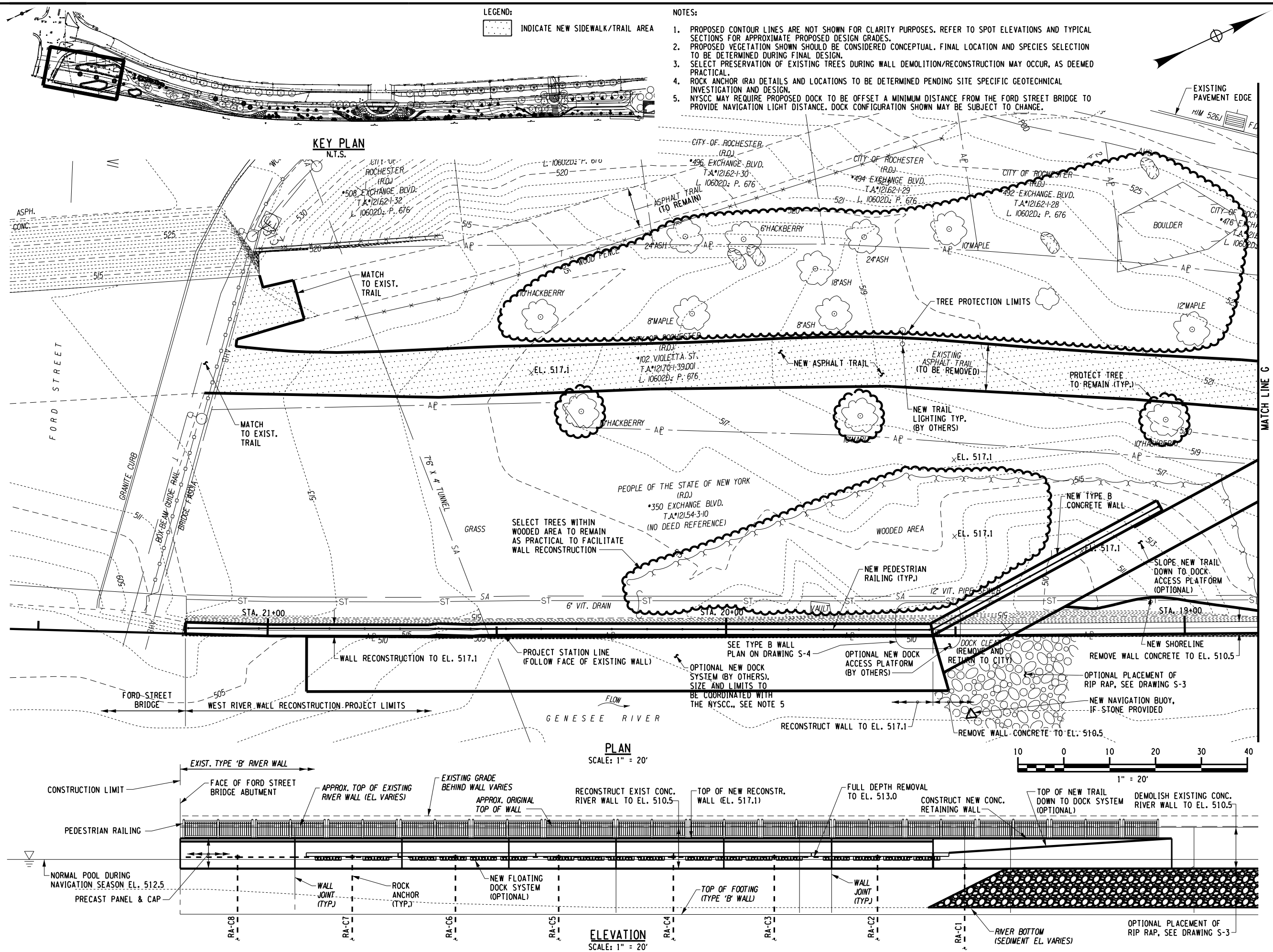
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Scale:

1" = 20'

**PE-8**



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TYPICAL WALL  
REMOVAL SECTIONS

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Project Manager:  
A.J.R.

Designed By:  
J.M.R.

Drawn By:  
T.S.H.

Checked By:  
D.T.G.

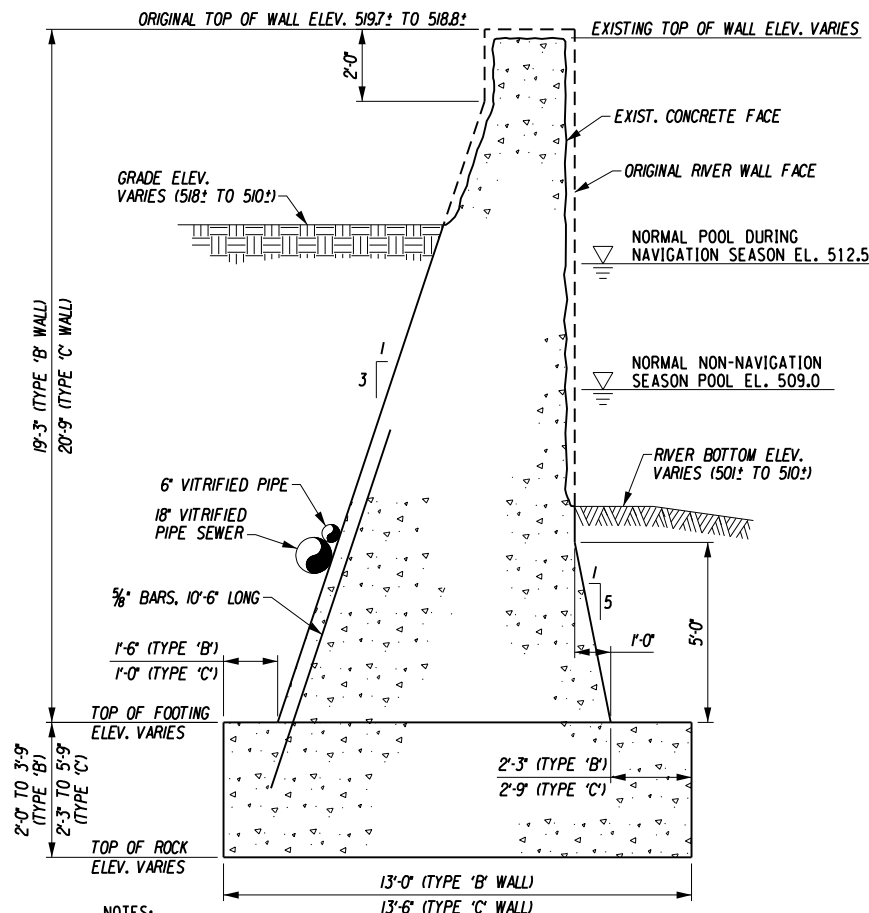
Drawing Number:

Project Number:  
12236

Date Issued:  
JAN 2015

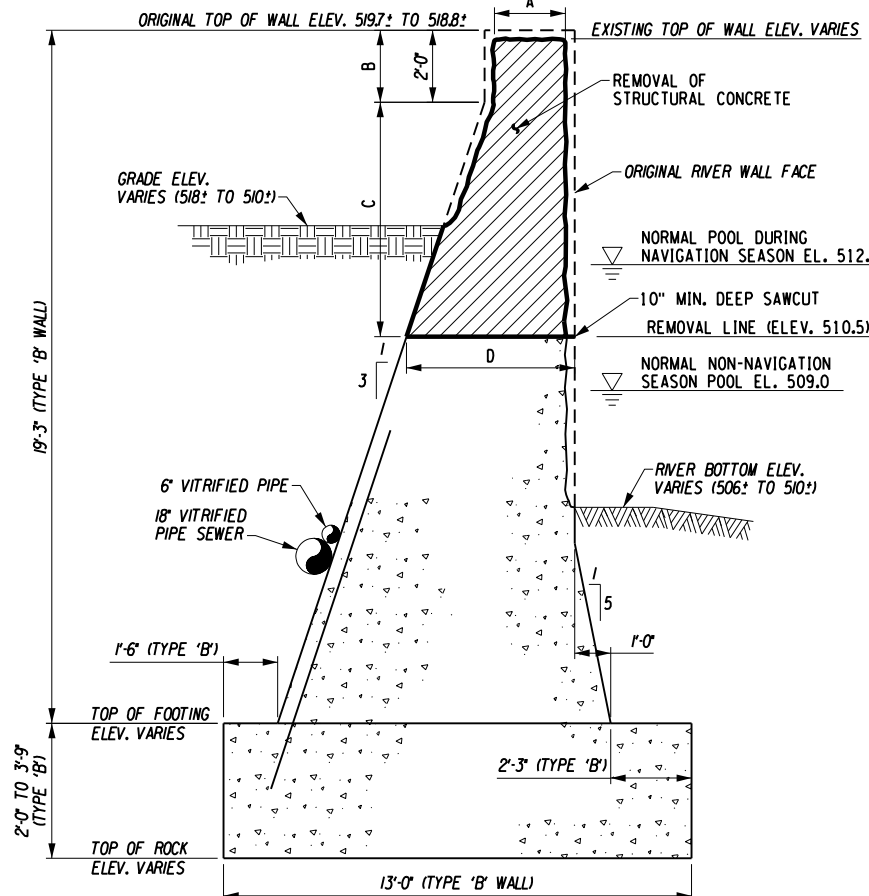
Scale:  
AS NOTED

S-1



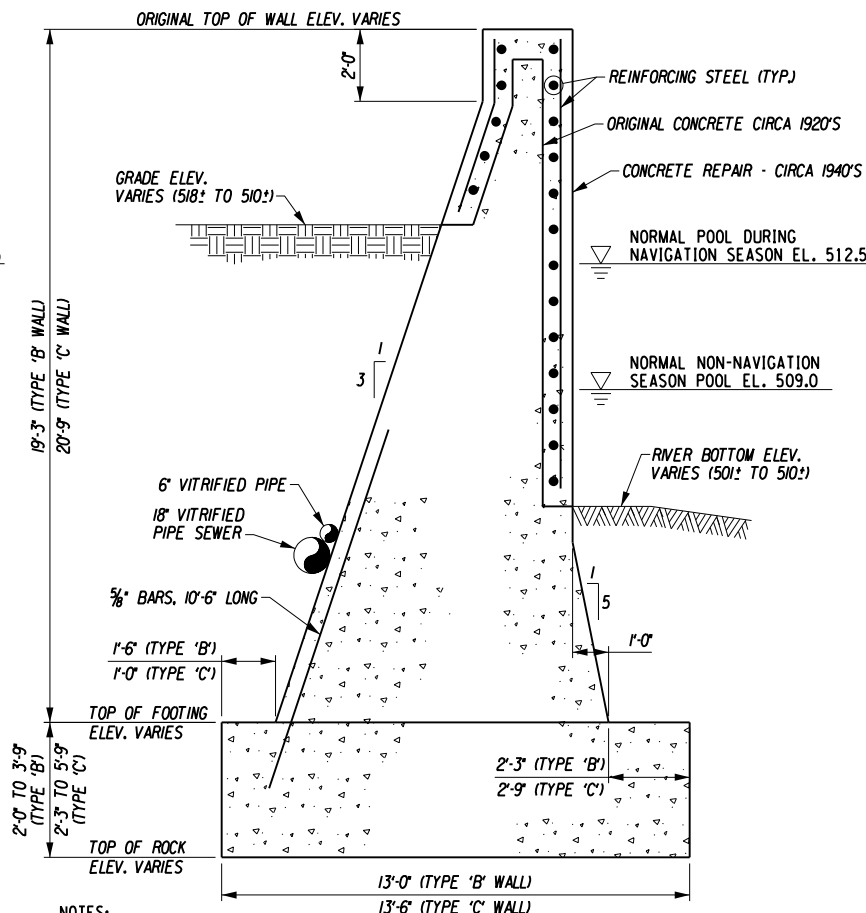
NOTES:  
SEE NOTE 1.

SECTION 1 (EXISTING CONDITIONS)  
EXISTING WALL SECTION ORIGINAL MONOLITH  
NOT TO SCALE



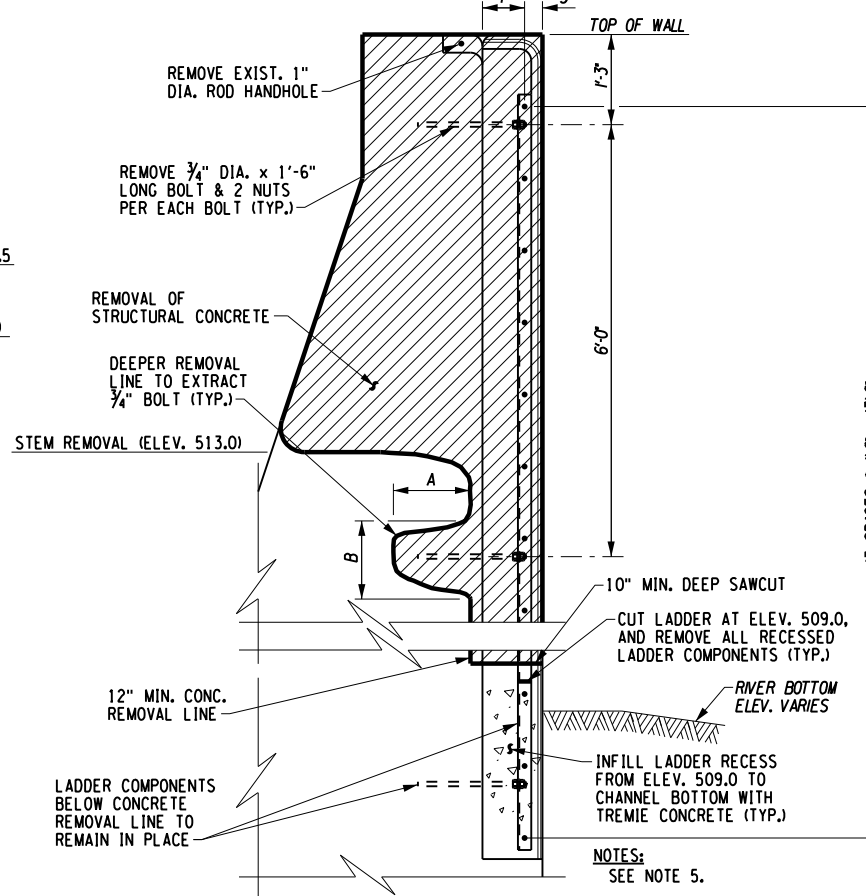
NOTES:  
SEE NOTE 3.

SECTION 4 (REMOVAL)  
REMOVAL WALL SECTION  
AT NATURALIZED EMBANKMENT: STA. 13+44.0 TO STA. 19+54.89.  
NOT TO SCALE



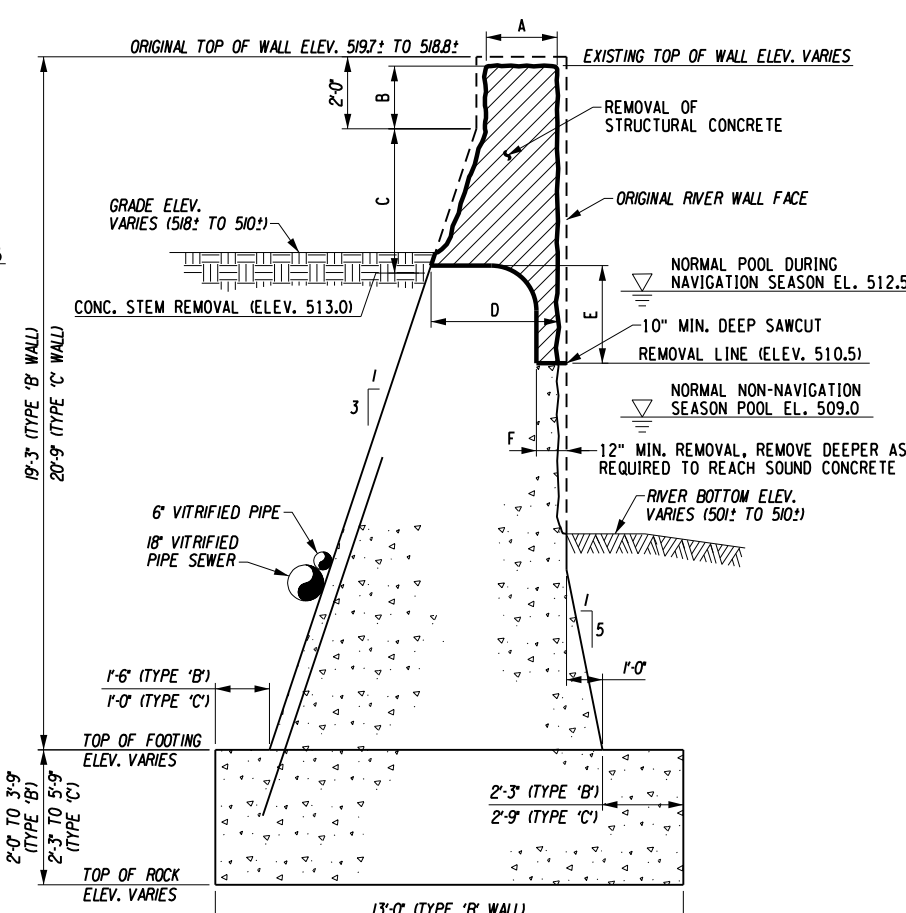
NOTES:  
SEE NOTES 1 & 2.

SECTION 2 (EXISTING CONDITIONS)  
EXISTING WALL SECTION 1940'S REPAIRED MONOLITH  
NOT TO SCALE



NOTES:  
SEE NOTE 5.

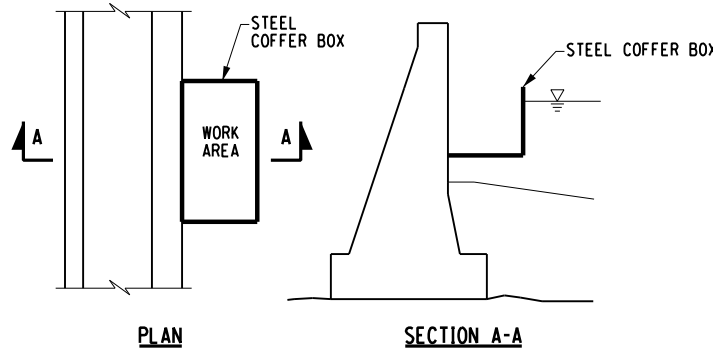
SECTION 5 (REMOVAL)  
REMOVAL RECESSED LADDER  
STA. 0+94.6, STA. 5+94.6, STA. 10+94.6 & STA. 15+94.6.  
NOT TO SCALE



NOTES:  
SEE NOTE 3.

SECTION 3 (REMOVAL)  
REMOVAL WALL SECTION

AT BERM RECONSTRUCTION:  
STA. 0+00 TO STA. 2+07.6, STA. 4+23.66 TO STA. 7+51.16 & STA. 10+96.87 TO STA. 13+44.0.  
AT WALL RECONSTRUCTION:  
STA. STA. 2+07.6 TO STA. 4+23.66, STA. 7+51.16 TO STA. 10+96.87 & STA. 19+54.89 TO STA. 21+18.0.  
NOT TO SCALE



COFFERDAM SCHEMATIC  
NOT TO SCALE

COFFERDAM NOTES:

1. THE COFFERDAM IN ITS ENTIRETY SHALL BE REMOVED FOR DISPOSAL AS SOON AS IT IS NO LONGER NEEDED.
2. THE CONTRACTOR SHALL SUBMIT A PLAN OF THE PROPOSED METHOD OF DEWATERING THE WORK AREA, TO THE SATISFACTION OF THE ENGINEER-IN-CHARGE, FOR APPROVAL AT LEAST 14 DAYS PRIOR TO ANY WORK. THE COST OF DEWATERING THE WORK AREA, REGARDLESS OF THE SOURCE OF THE WATER, SHALL BE INCLUDED IN THE COFFERDAM ITEM.
3. ANY FILL USED IN THE CONSTRUCTION OF THE COFFERDAM SHALL BE CLEAN, UNCONTAMINATED GRANULAR FILL WITH A MAXIMUM OF 10% BY WEIGHT PASSING A NO. 75 UM SEIVE AS MEASURED IN ACCORDANCE WITH ASTM C136.

GENERAL NOTES:

1. SECTION 1 AND SECTION 2 DO NOT DEPICT EXISTING SPECIFIC CONDITIONS, BUT CONVEY ORIGINAL AND REPAIRED MONOLITH.
2. MONOLITH REPAIRED WITH REINFORCED CONCRETE. LIMITS OF WORK UNKNOWN.
3. STEM REMOVAL + VERTICAL FACE REMOVAL:  $(A \times B) + (A \times C) + \frac{1}{2}(C \times D - A) + (E \times F)$ .
4. STRUCTURAL CONC. REMOVAL:  $(A \times B) + (A \times C) + \frac{1}{2}(C \times D - A)$ .
5. CONCRETE REMOVAL SIMILAR TO SECTIONS 3 & 4. STEM REMOVAL + VERTICAL FACE REMOVAL + ADD IN BOLT REMOVAL  $(A \times B)$ .

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J.M.B.

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T.S.H.

Checked By

D.T.G

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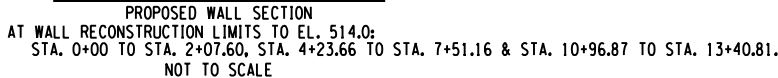
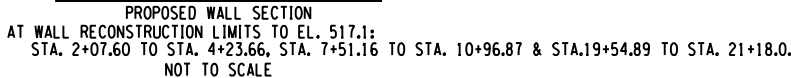
Scale

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Drawing Number

# S-2

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TYPICAL PROPOSED  
CROSS-SECTIONS

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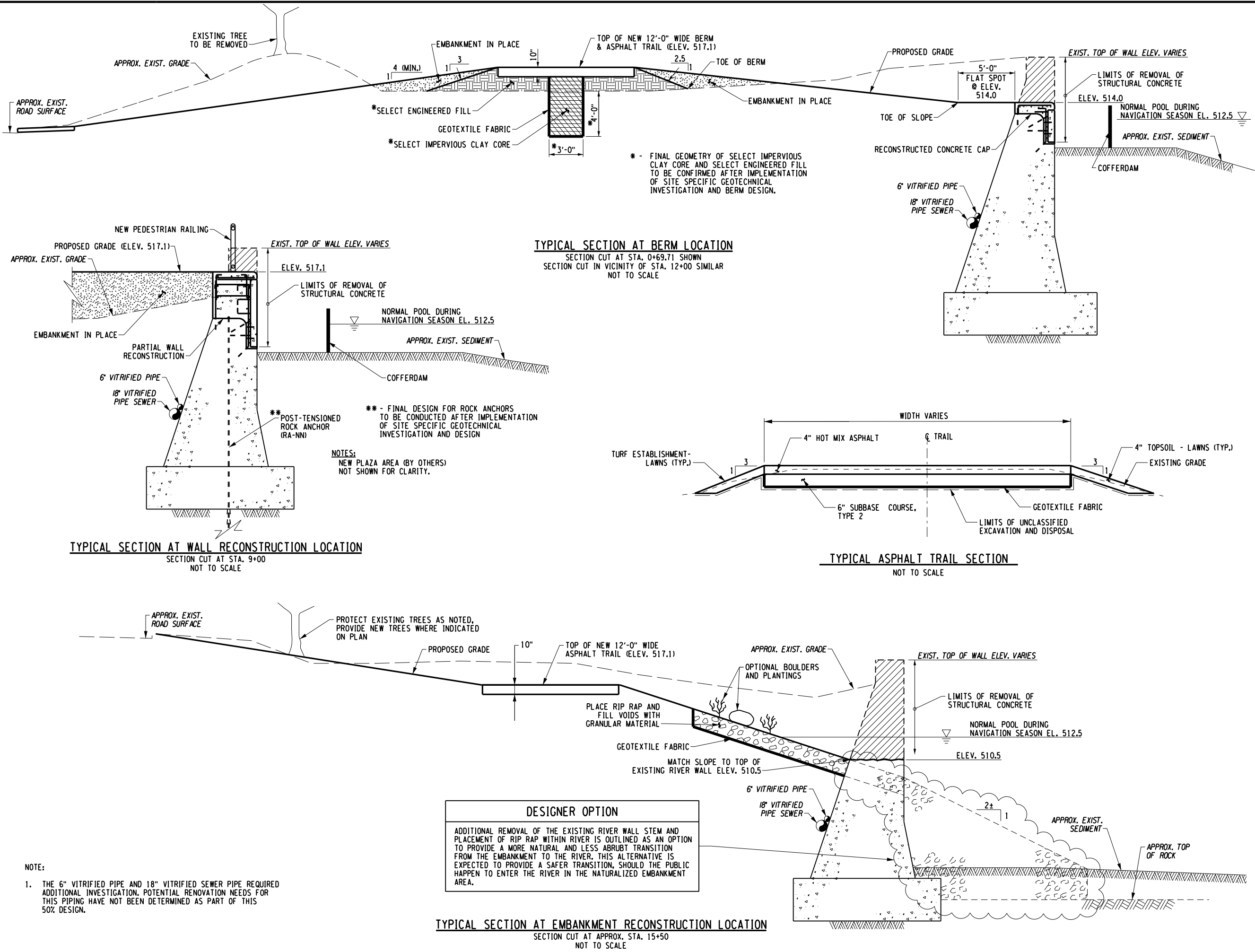
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S-3

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## 14 of 16

Print Date: X  
File Name: X

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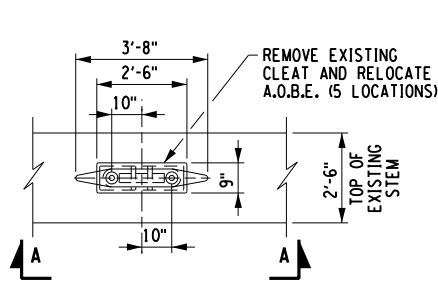
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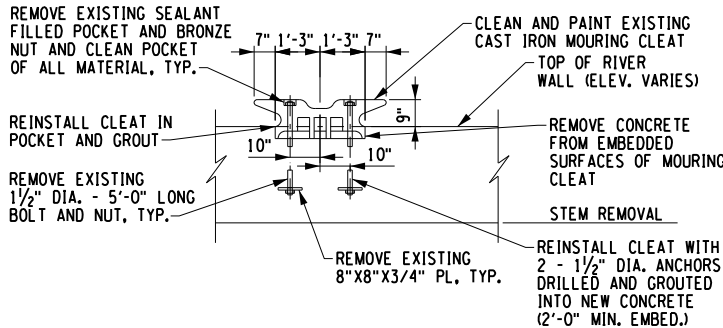
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MD-1

15 of 16

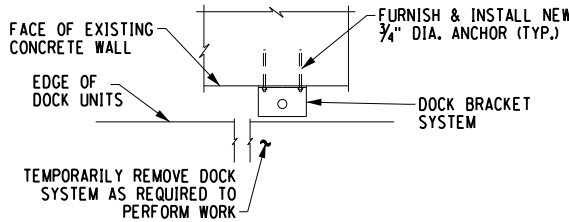


PLAN



SECTION A-A

CLEAT RELOCATION DETAIL  
NO SCALE



DETAIL

EXISTING DOCK ASSEMBLY  
REMOVE & REINSTALL 7; REPLACE 1 IN KIND  
NOT TO SCALE

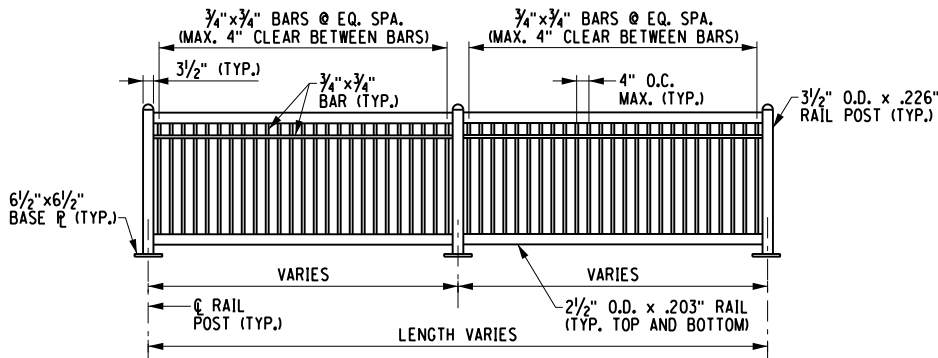
NOTES:

1. REMOVE ENTIRE SUPPORT ARM, ASSEMBLY AND ACCESORIES, INCLUDE IN REMOVAL OF STRUCTURAL CONCRETE.

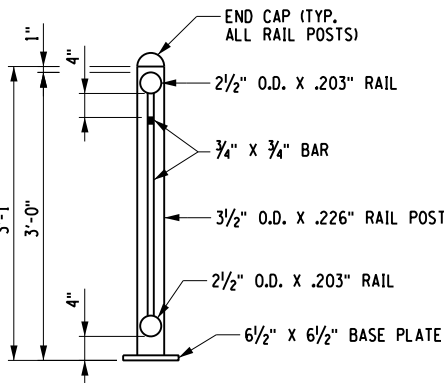
RAILING NOTES:

1. ALL RAILING IS TO BE FABRICATED AND ERECTED SO THAT THE RAILS ARE PARALLEL TO EACH OTHER, AND SO THAT THE POSTS ARE TRULY VERTICAL.
2. ALL RAILS SHALL BE CONTINUOUS BETWEEN THE POSTS. NO SPlicing OF THE RAILS IS PERMITTED. HOWEVER, SPlicing OF THE TOP RAIL IS PERMITTED TO SUIT FABRICATION/INSTALLATION LIMITATION.
3. THE CONTRACTOR HAS THE OPTION TO SHOP OR FIELD WELD THE RAILING TO POST CONNECTIONS TO SUIT FABRICATION/INSTALLATION LIMITATION.
4. THE BASE PLATES SHALL BE PERPENDICULAR TO THE POST UNLESS OTHERWISE NOTED. WHEN THE RAILING IS TO BE PLACED ON A PREFORMED SURFACE, THE BASE PLATE MAY BE PARALLEL TO THE GRADE OR MAY BE PERPENDICULAR TO THE POST AND MADE LEVEL BY THE USE (1:1 RATIO CEMENT TO SAND) MORTAR.
5. STEEL PIPE RAILS, PIPE POSTS, BAR PICKETS, BASE PLATES, AND ANY NECESSARY SHIMS AND MORTAR LEVELING COURSE SHALL BE PAID UNDER THE RAILING ITEM.
6. ANCHOR STUDS, NUTS, WASHERS AND ANCHOR PLATES SHALL BE PAID FOR UNDER THE RAILING ITEM.
7. RAILING POSTS SHALL BE ERECTED TO PROPER LINE AND GRADE BEFORE THE CEMENT MORTAR PAD IS PLACED.
8. AFTER THE ANCHOR ROD NUTS HAVE BEEN TIGHTENED TO THE SATISFACTION OF THE ENGINEER, THE STUDS SHALL BE FLAME CUT OFF ONE (1) INCH ABOVE THE NUT AND FIRST THREE THREADS ABOVE THE NUT SHALL BE DAMAGED AS ORDERED BY THE ENGINEER.
9. MATERIALS USED IN THE MANUFACTURE OF THIS RAILING SHALL CONFORM TO THE REQUIREMENTS AND/OR SPECIFICATIONS BELOW:

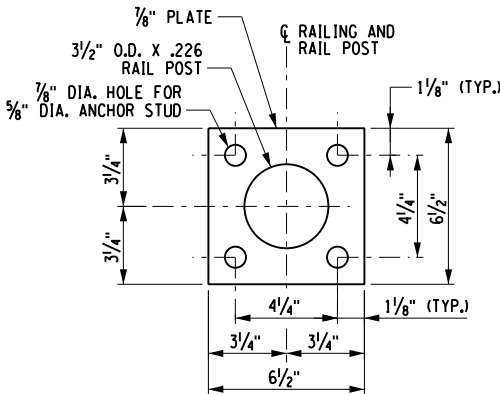
PIPE RAIL AND POSTS	ASTM A53M, GRADE B
BAR	ASTM A36M
ANCHOR PLATES	ASTM A36M
BASE PLATES	ASTM A36M
ANCHOR STUDS	ASTM A449M
NUTS AND WASHERS FOR ANCHOR STUDS	ASTM A325M, TYPE I OR III
10. WELDS EXPOSED TO VIEW SHALL HAVE SMOOTH AND UNIFORM AS-WELDED SURFACES, AS APPROVED BY THE ENGINEER.
11. THE STEEL PEDESTRIAN RAILING SHALL BE PAINTED IN ACCORDANCE WITH THE REQUIREMENTS OF AND PAID FOR UNDER ITEM S572.0301 - SHOP APPLIED STRUCTURAL STEEL PAINT SYSTEM. PAINT SHALL BE A SEMIGLOSS BLACK FINISH, CONFORMING TO FEDERAL STANDARD 595B COLOR \*27038.
12. BOLT HEADS, WASHERS, NUTS, BOLT THREAD EXTENSIONS AND OTHER MISCELLANEOUS SURFACES NOT PAINTED IN THE SHOP SHALL BE FIELD PAINTED IN ACCORDANCE WITH AND PAID UNDER ITEM S572.0301 - SHOP APPLIED STRUCTURAL STEEL PAINT SYSTEM.



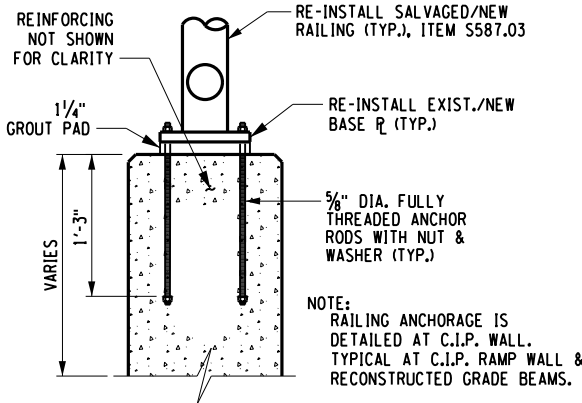
RAILING ELEVATION  
NO SCALE



TYPICAL RAILING SECTION  
NO SCALE



BASE PLATE DETAIL  
NO SCALE



TYPICAL RAILING ANCHORAGE @ HIGH WALL

PEDESTRIAN RAILING ANCHORAGE DETAILS  
NO SCALE

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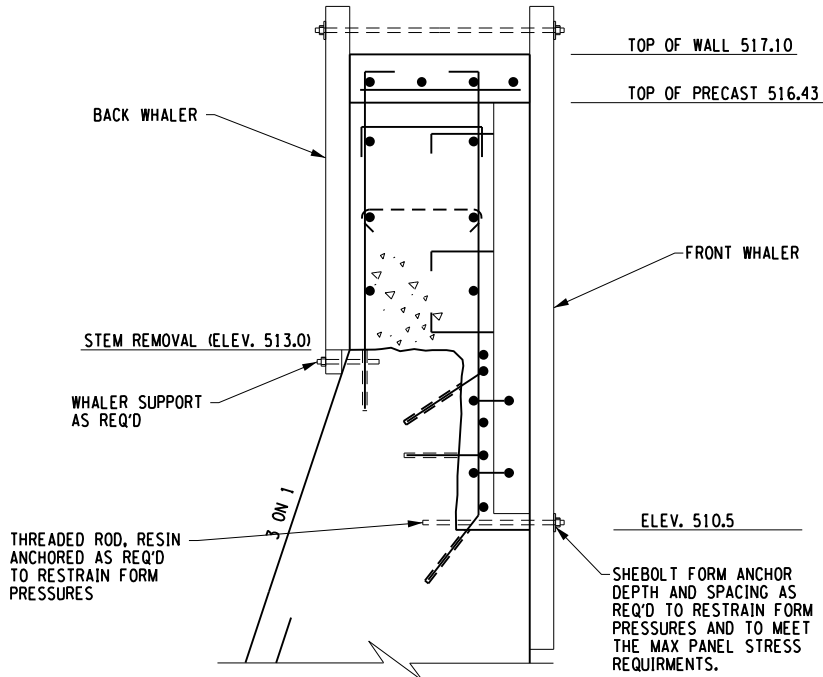
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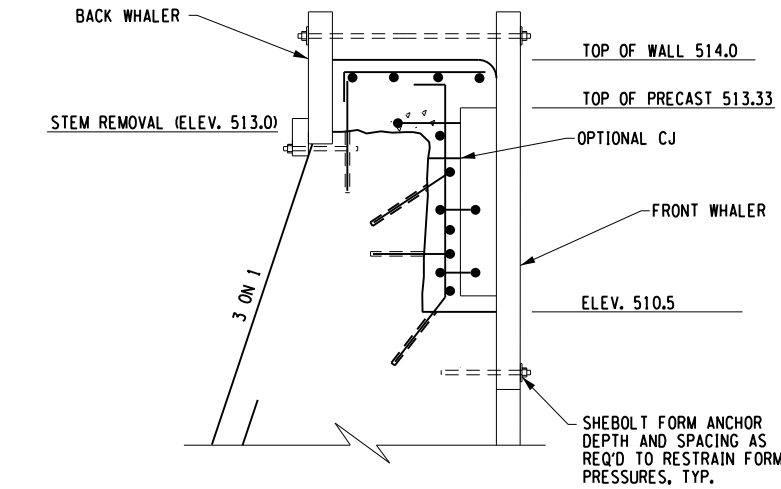
MD-2

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SECTION 1

PROPOSED WALL SECTION AT TOP OF WALL, ELEV. 517.1  
STA. 2+07.60 TO STA. 4+23.66, STA. 7+51.16 TO STA. 10+96.87 & STA. 19+54.89 TO STA. 21+18.0.  
NOT TO SCALE



SECTION 2

PROPOSED WALL SECTION AT TOP OF WALL, ELEV. 514.0  
STA. 0+00 TO STA. 2+07.60, STA. 4+23.66 TO STA. 7+51.16 & STA. 10+96.87 TO STA. 13+40.81.  
NOT TO SCALE