

NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT

SOUTH SYSTEM IMPROVEMENTS - LOCUST TREE BASIN

SAN JOAQUIN COUNTY



DATE SIGNED: ----

BID SET – NOT FOR CONSTRUCTION
05/08/2026

NO.	REVISION	DATE



Know what's below.
Call before you dig.

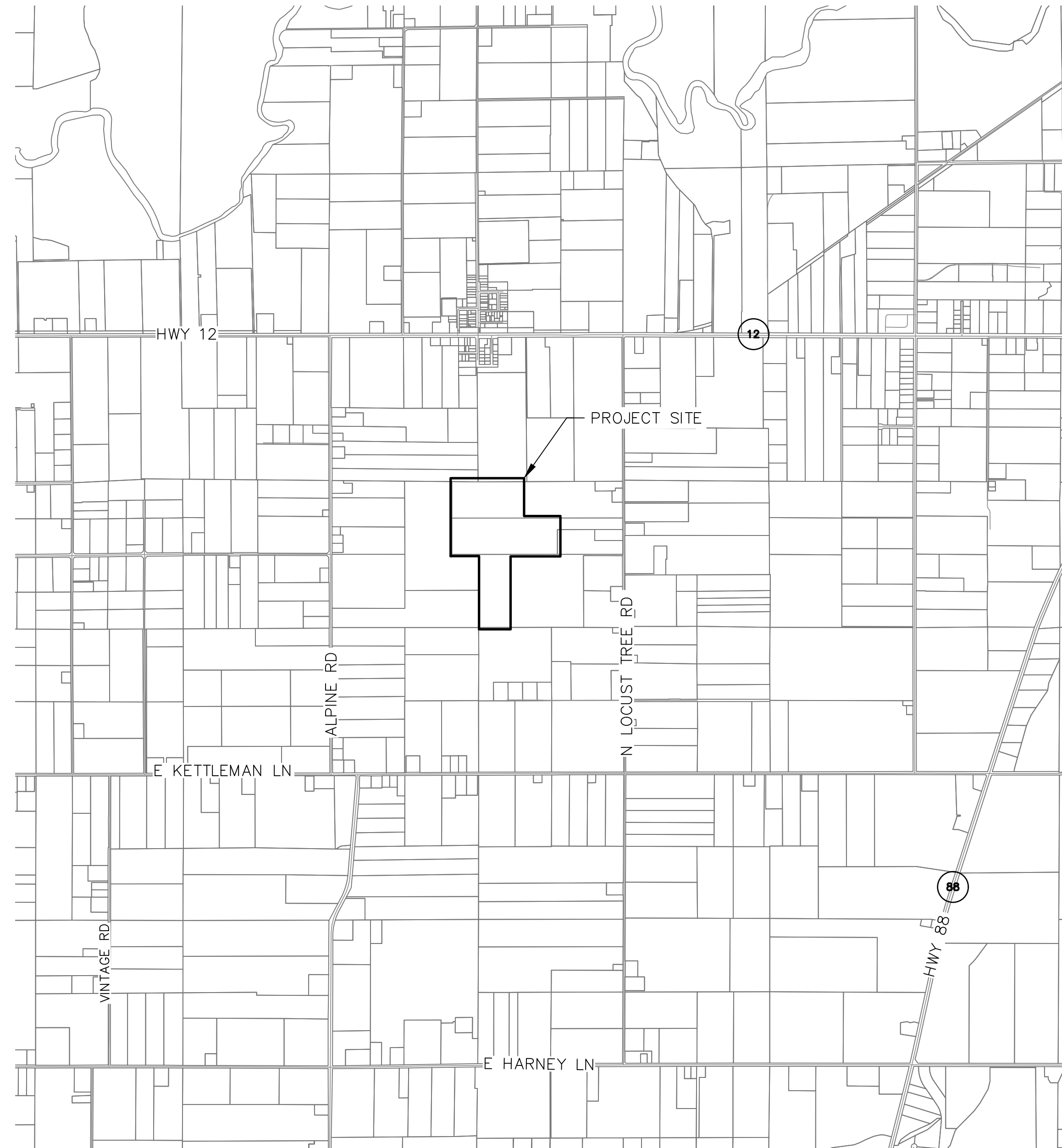
CONSTRUCTION PLANS
COVER SHEET

LOCUST TREE BASIN
NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
SAN JOAQUIN COUNTY

PROJECT:	----
DRAWN BY:	GJ/DD
CHECKED BY:	DD
DATE:	05/08/2026

SHEET
1 OF **10**

SHEET INDEX	
SHEET NO.	DESCRIPTION
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6	BASIN 4 GRADING PLAN
7	LATERAL PIPELINE
8	GRADING DETAILS
9	STRUCTURAL DETAILS
10	MISCELLANEOUS DETAILS



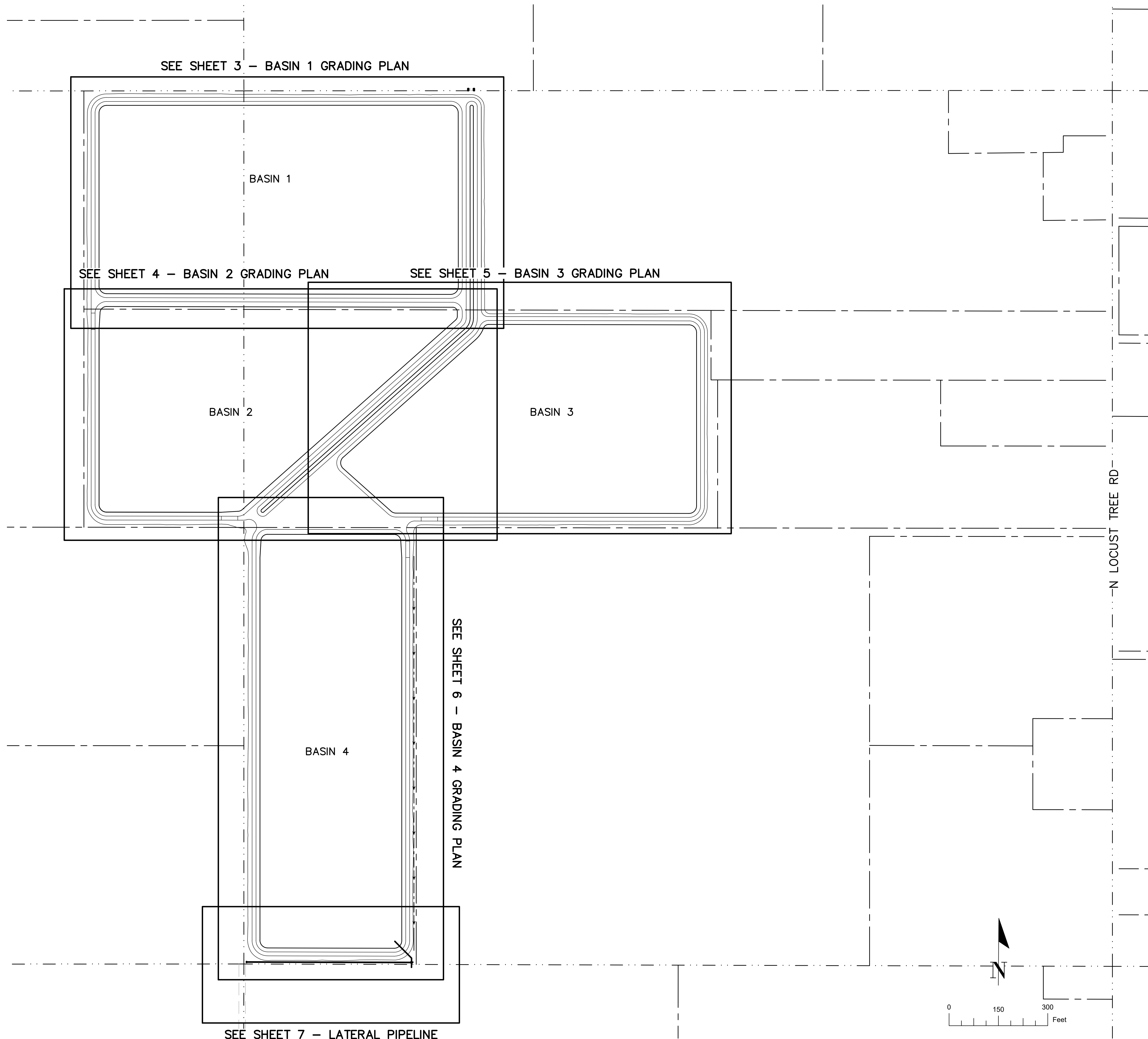
VICINITY MAP
NOT TO SCALE

GENERAL NOTES

- 1: NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT (NSJWCD) SHALL BE CONTACTED AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK ON OR NEAR EXISTING DISTRICT FACILITIES.
- 2: USED MATERIAL, REJECTS, MISFITS, SECONDS, ETC. ARE NOT ACCEPTABLE FOR USE.
- 3: ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THESE PLANS AND PROJECT SPECIFICATIONS.
- 4: CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING FACILITIES PRIOR TO COMMENCING WORK. CALL UNDERGROUND SERVICE ALERT (USA) AT 8-1-1. CONTRACTOR SHALL MAKE ENGINEER AWARE OF ANY DISCREPANCIES. WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS, DEPTH AND DIMENSIONS OF STRUCTURES ARE BELIEVED TO BE REASONABLY CORRECT, BUT ARE NOT GUARANTEED. SUCH STRUCTURES ARE SHOWN FOR THE INFORMATION OF THE CONTRACTOR, BUT INFORMATION SO GIVEN IS NOT TO BE CONSTRUED AS A REPRESENTATION THAT SUCH STRUCTURES WILL, IN ALL CASES, BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL OF THE STRUCTURES WHICH MAY BE ENCOUNTERED.
- 5: CONCRETE DESIGN MIX SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ALL CONCRETE SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI UNLESS OTHERWISE SPECIFIED.
- 6: TRENCH BACKFILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION UNLESS OTHERWISE NOTED IN THESE PLANS.
- 7: ALL STEEL PIPE AND FITTINGS SHALL BE FURNISHED WITH A SHOP APPLIED HIGH SOLIDS EPOXY COATING ON THE INTERIOR AND EXTERIOR, UNLESS OTHERWISE INDICATED. ALL OTHER EXPOSED STEEL SHALL BE PAINTED WITH A PRE-TREATMENT PRIMER, AN UNDERCOAT, AND A FINAL COAT OF PAINT IN ACCORDANCE WITH THESE PLANS.
- 8: ALL NUTS, BOLTS, AND WASHERS USED TO SECURE UNDERGROUND FITTINGS SHALL BE STAINLESS STEEL. AFTER INSTALLATION, ALL STEEL HARDWARE SHALL BE COATED WITH A RUST PREVENTATIVE, WRAPPED WITH 4 MIL POLYETHYLENE SHEETING, AND SECURED WITH PVC TAPE.
- 9: THRUST RESTRAINTS TO BE PROVIDED AT ALL PIPELINE BENDS, WHETHER OR NOT SHOWN ON THE PLANS.
- 10: ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE HEALTH AND SAFETY LAWS OF THE STATE OF CALIFORNIA AND CAL/OSHA STANDARDS.
- 11: CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ALL PIPELINE CRACKS, WHICH DEVELOP DURING CONSTRUCTION OF IMPROVEMENTS AFFECTING EXISTING FACILITIES.
- 12: ALL EXCESS MATERIAL AND/OR DEBRIS SHALL BE REMOVED UPON COMPLETION OF INSTALLATION.
- 13: CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE DUST CONTROL AT ALL TIMES.

SITE SAFETY AND PROTECTION NOTES

- 1: THE DUTY OF THE ENGINEER, OWNER OR ITS AGENTS TO CONDUCT CONSTRUCTION OF THE CONTRACTOR'S PERFORMANCE AND THE UNDERTAKING OF INSPECTIONS OR THE GIVING OF INSTRUCTIONS AS AUTHORIZED HEREIN IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF THE ACTUAL CONSTRUCTION NOR MAKE THE ENGINEER, OWNER OR ITS AGENTS RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR, SUBCONTRACTORS, OR SUPPLIERS, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL OR OCCUPANCY BY ANY PERSON.
- 2: THE CONTRACTOR SHALL HAVE AT THE WORK SITE, COPIES OR SUITABLE EXTRACTS OF CONSTRUCTION SAFETY ORDERS, ISSUED BY CAL-OSHA. CONTRACTOR SHALL COMPLY WITH PROVISIONS OF THESE AND ALL OTHER APPLICABLE LAWS, ORDINANCES AND REGULATIONS. THE CONTRACTOR MUST COMPLY WITH PROVISIONS OF THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, PROMULGATED BY THE SECRETARY OF LABOR UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT, AS SET FORTH IN TITLE 29 C.F.R.
- 3: TO PROTECT THE LIVES AND HEALTH OF CONTRACTOR'S EMPLOYEES UNDER THE CONTRACT, THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC., AND SHALL MAINTAIN AN ACCURATE RECORD OF ALL CASES OF DEATH, OCCUPATIONAL DISEASE, AND INJURY REQUIRING MEDICAL ATTENTION OR CAUSING LOSS OF TIME FROM WORK, ARISING OUT OF AND IN THE COURSE OF EMPLOYMENT OR WORK UNDER THE CONTRACT.
- 4: THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR THE SAFETY, EFFICIENCY, AND ADEQUACY OF CONTRACTOR'S FACILITIES, APPLIANCES, AND METHODS AND FOR ANY DAMAGE, WHICH MAY RESULT FROM THEIR FAILURE OR THEIR IMPROPER CONSTRUCTION, MAINTENANCE, OR OPERATION.
- 5: THE CONTRACTOR AGREES THAT IT SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER, ENGINEER, AND THEIR RESPECTIVE AGENTS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER, ENGINEER, OR THEIR RESPECTIVE AGENTS.
- 6: THE OWNER AND ITS AGENTS' SITE RESPONSIBILITIES ARE LIMITED SOLELY TO THE ACTIVITIES OF THEIR EMPLOYEES ON SITE. THE RESPONSIBILITIES SHALL NOT BE INFERRED BY ANY PARTY TO MEAN THAT THE OWNER OR ITS AGENTS HAVE RESPONSIBILITY FOR SITE SAFETY, SAFETY IN, ON, OR ABOUT THE SITE IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR ALONE. THE CONTRACTOR'S METHODS OF WORK PERFORMANCE, SUPERINTENDENCE, AND THE CONTRACTOR'S EMPLOYEES, AND SEQUENCING OF CONSTRUCTION ARE ALSO THE SOLE AND EXCLUSIVE RESPONSIBILITIES OF THE CONTRACTOR ALONE.



SEE SHEET 3 – BASIN 1 GRADING PLAN

BASIN 1

SEE SHEET 4 – BASIN 2 GRADING PLAN

BASIN 2

SEE SHEET 5 – BASIN 3 GRADING PLAN

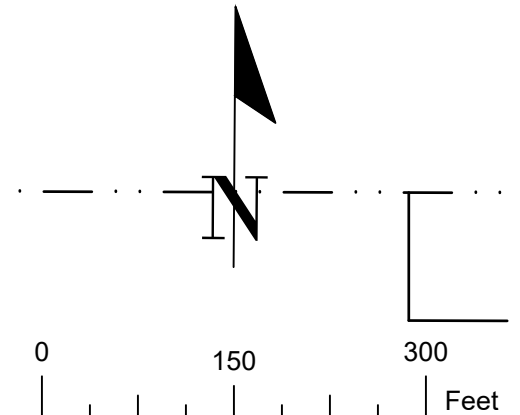
BASIN 3

SEE SHEET 6 – BASIN 4 GRADING PLAN

BASIN 4

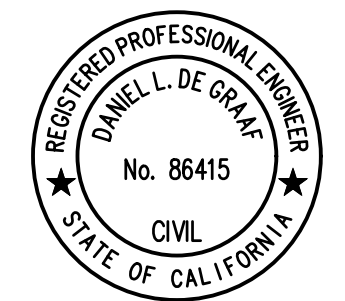
SEE SHEET 7 – LATERAL PIPELINE

N LOCUST TREE RD



EARTHWORK		
ITEM	QUANTITY	UNITS
CUT	58,800	CUBIC YARDS
COMPACTED FILL	55,500	CUBIC YARDS
STOCKPILE	3,300	CUBIC YARDS
FILL FACTOR	1.2	N/A

DE GRAAF
ENGINEERING, INC.
DEGRAAFENGINEERINGINC.COM
P.O. BOX 87 RIPON, CA 95366
(209) 614-2745



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Know what's below.
Call before you dig.

CONSTRUCTION PLANS
OVERALL SITE PLAN AND KEY MAP

LOCUST TREE BASIN
NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
SAN JOAQUIN COUNTY

PROJECT: ----
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SHEET
2 OF **10**



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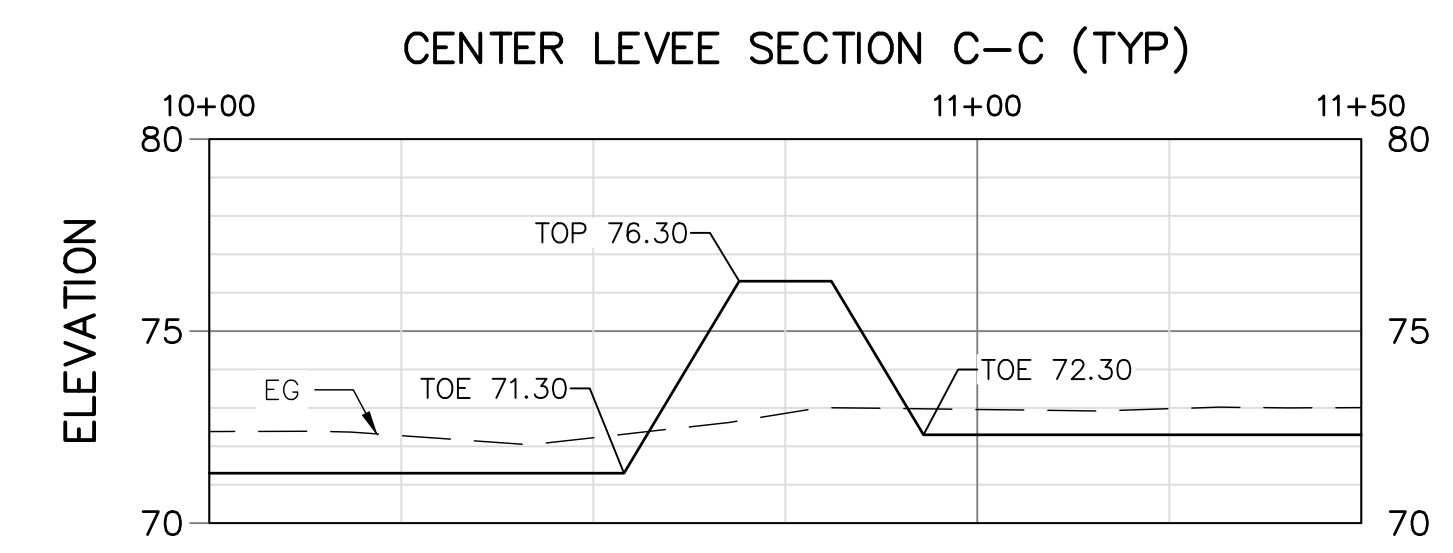
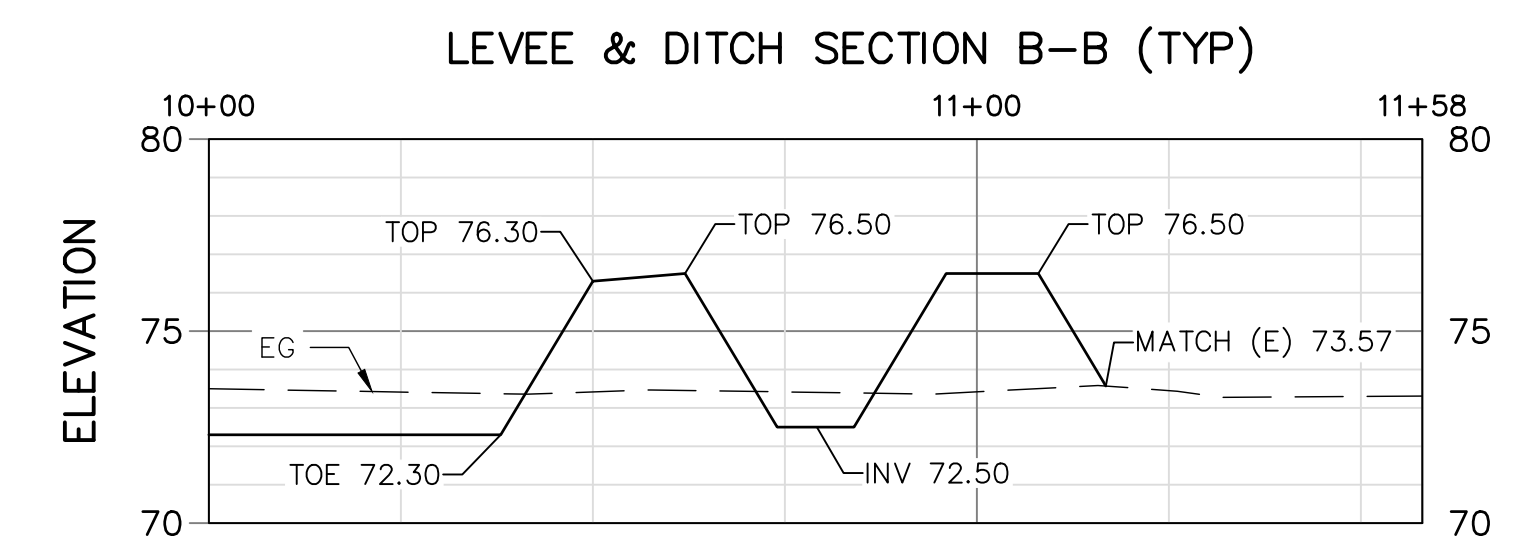
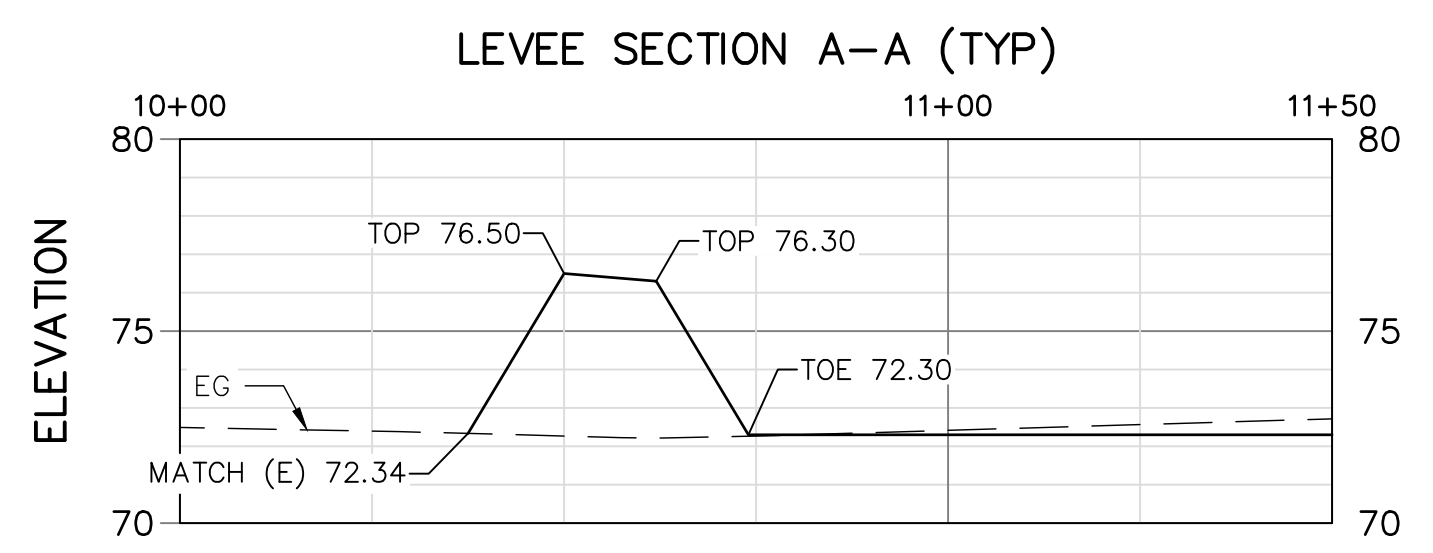
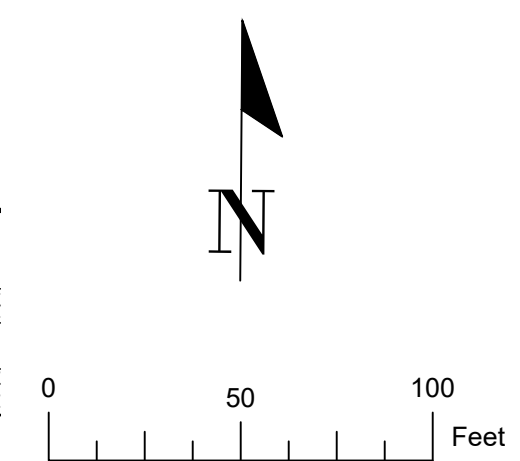
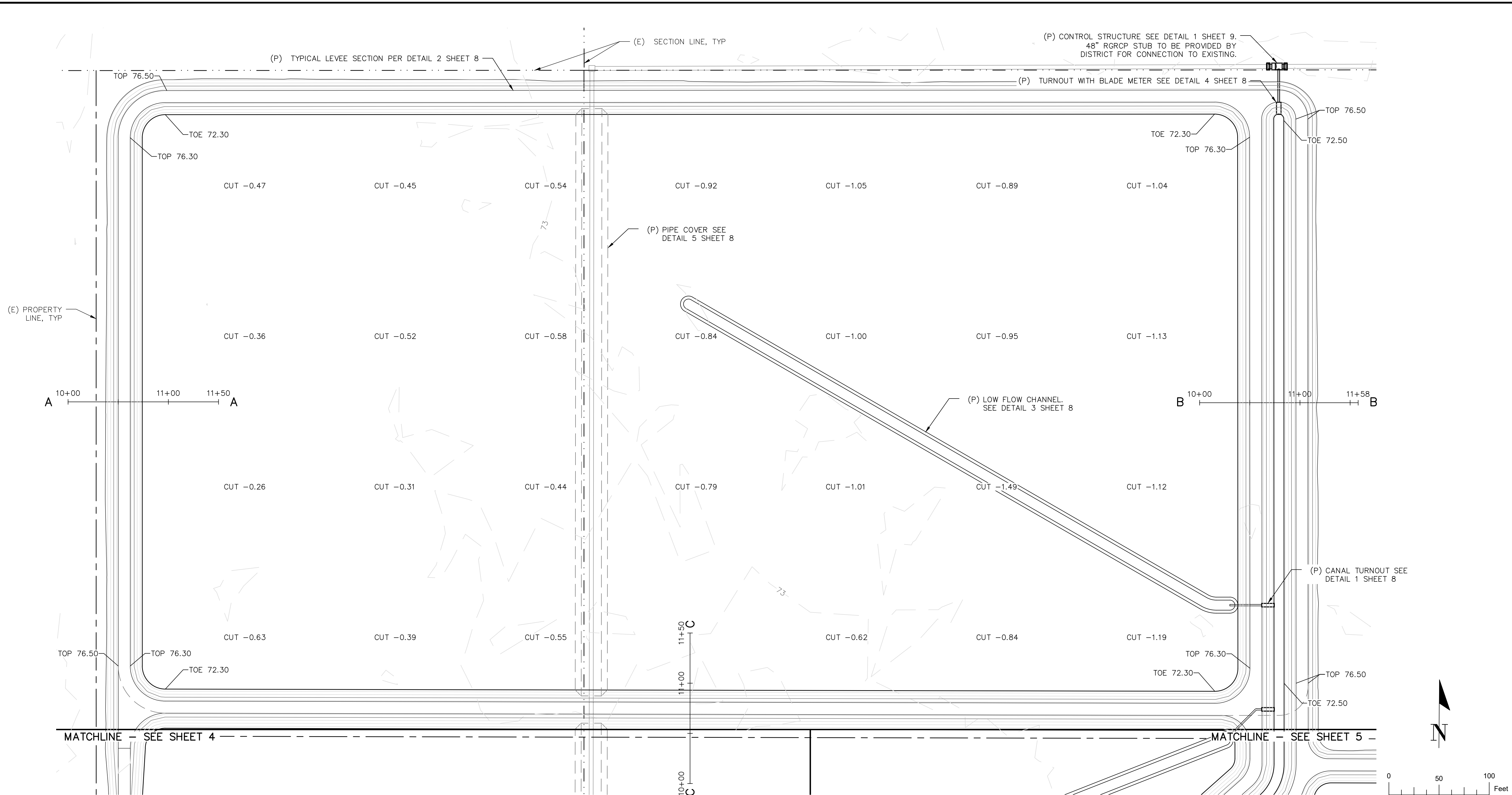
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CONSTRUCTION PLANS
BASIN 1 GRADING PLAN

LOCUST TREE BASIN
NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
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SHEET
3 OF **10**





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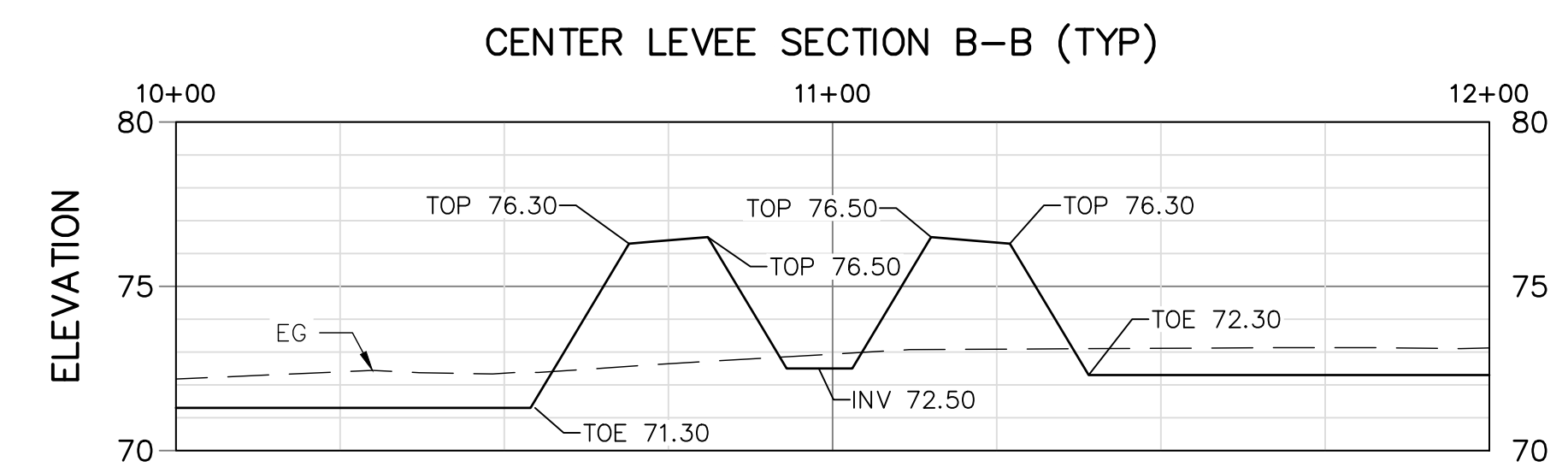
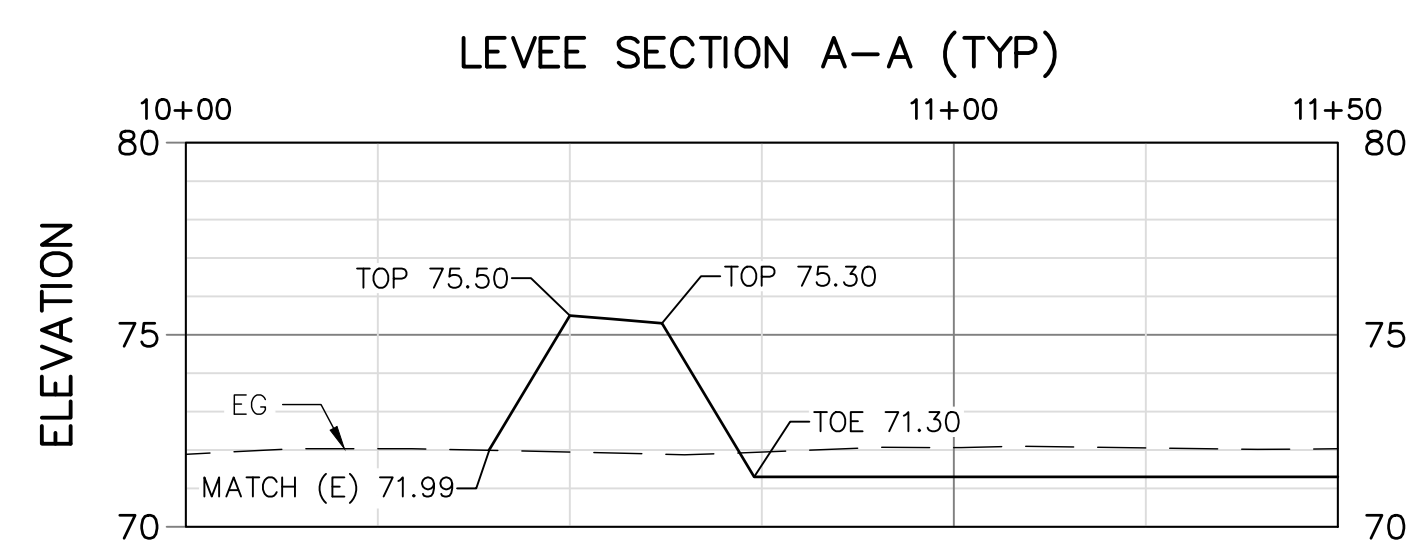
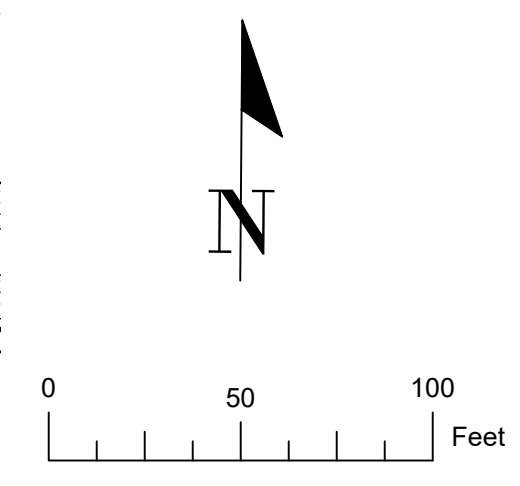
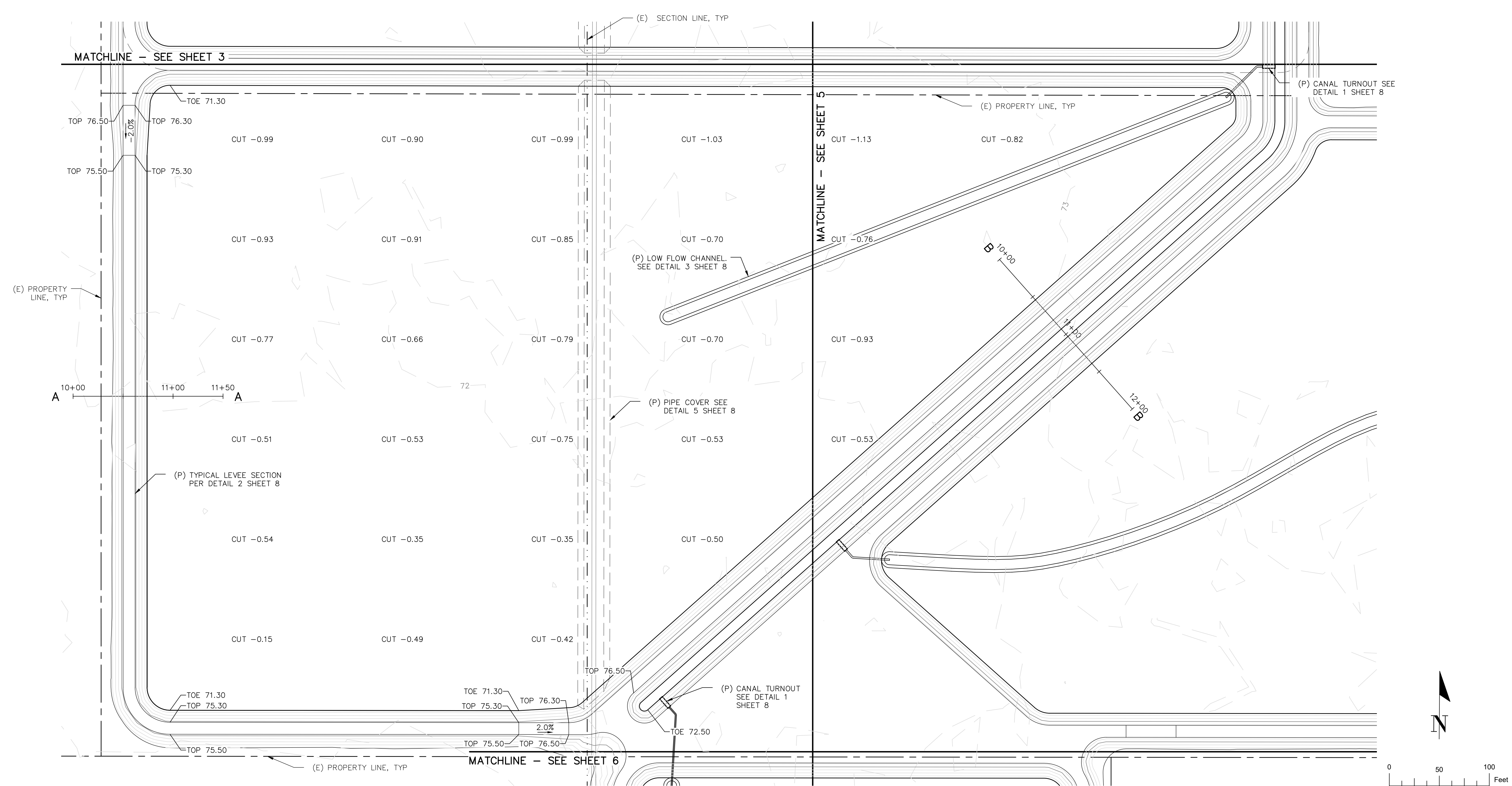
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CONSTRUCTION PLANS
BASIN 2 GRADING PLAN

LOCUST TREE BASIN
NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
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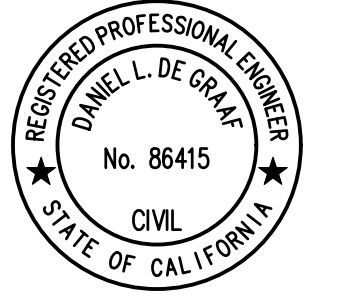
SHEET
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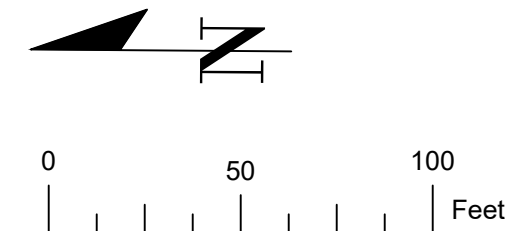
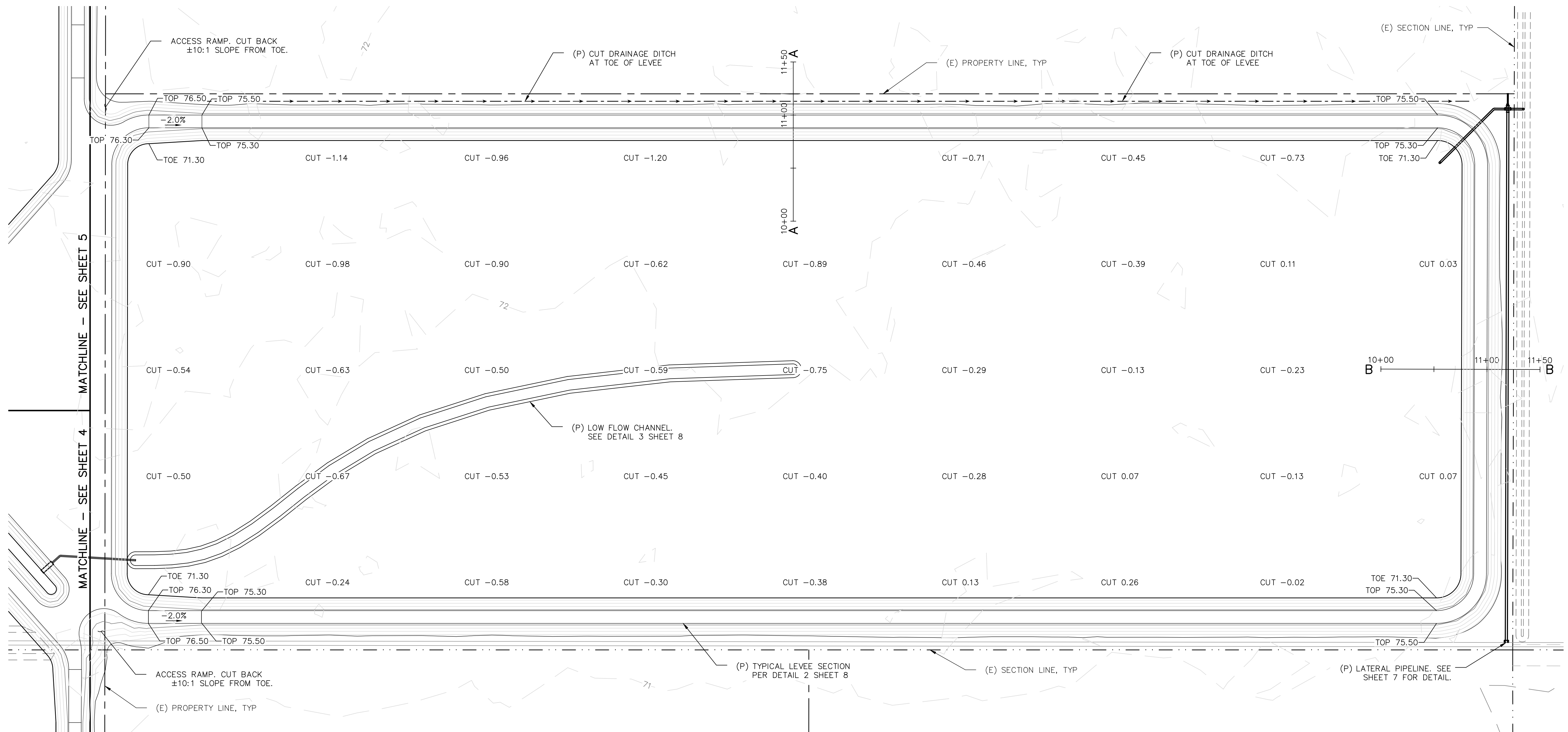
**CONSTRUCTION PLANS
BASIN 4 GRADING PLAN**

LOCUST TREE BASIN
NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
SAN JOAQUIN COUNTY

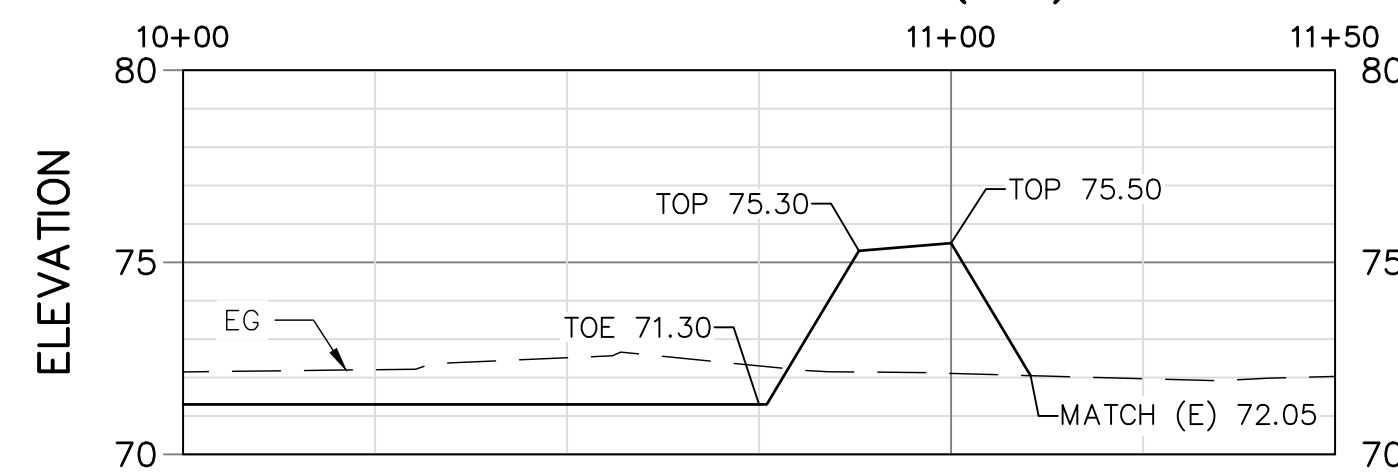
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SHEET

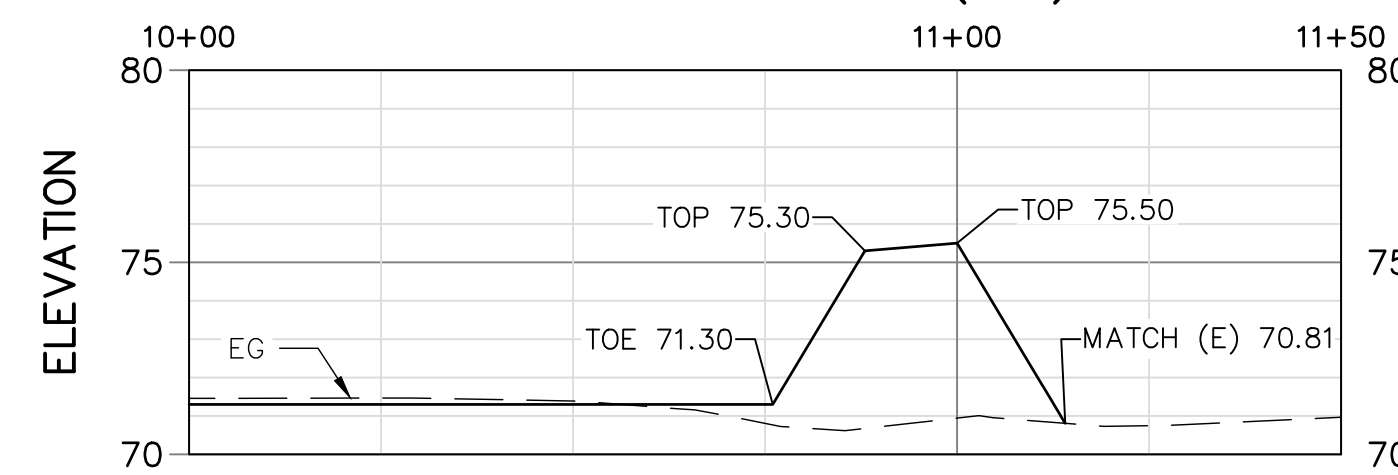
6 OF **10**



LEVEE SECTION A-A (TYP)



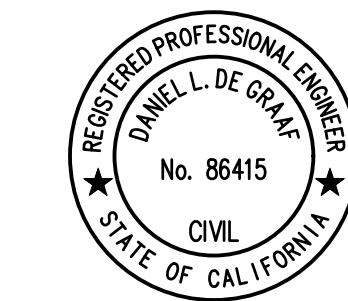
LEVEE SECTION B-B (TYP)





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CONSTRUCTION PLANS
LATERAL PIPELINE

LOCUST TREE BASIN
NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
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SHEET
7 OF **10**

BASIN 4

(E) PROPERTY LINE, TYP

(P) 18" 90° TURNED UP INTO BASIN.

(P) ± 80LF 18" 100 PSI PVC PIPE.

(P) 24" MAINLINE CONNECTION. SEE DETAIL 3 SHEET 10

±500 LF 24" 100 PSI PVC

(P) LATERAL CROSS. SEE DETAIL 2 PAGE 10

(P) 18" BRAY GEAR OPERATED BUTTERFLY VALVE

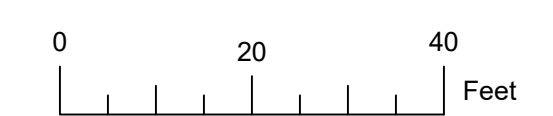
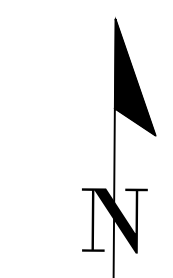
(P) 18" BRAY GEAR OPERATED BUTTERFLY VALVE

(P) 24"x12" ECCENTRIC REDUCER WITH 12" BRAY GEAR OPERATED BUTTERFLY VALVE AND ±10LF 10" 100PSI PVC WITH BLIND FLANGE AT PL.

(P) 18" 90° TURNED UP INTO DITCH. DITCH BY OTHERS.

IRRIGATION DITCH BY OTHERS.

(E) SECTION LINE, TYP





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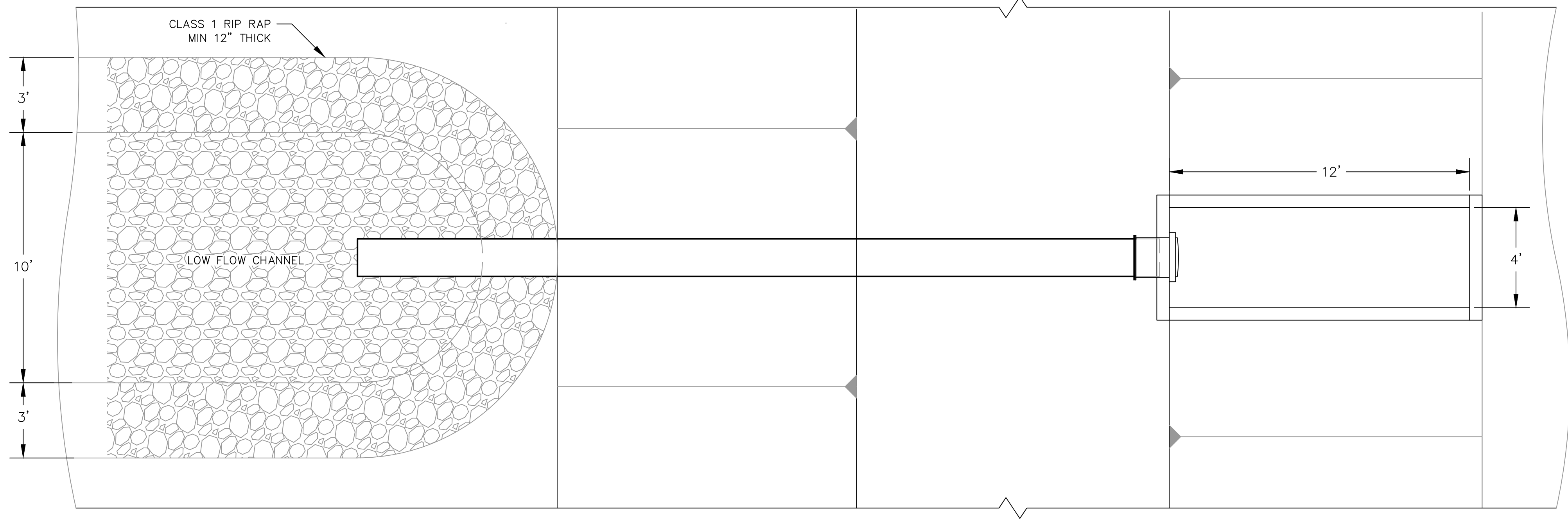
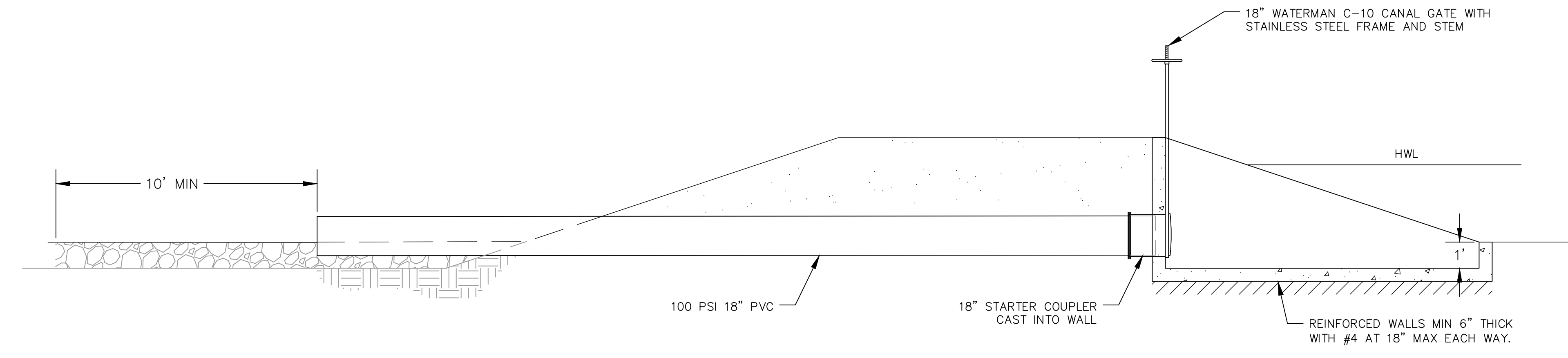
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CONSTRUCTION PLANS
GRADING DETAILS

LOCUST TREE BASIN
NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
SAN JOAQUIN COUNTY

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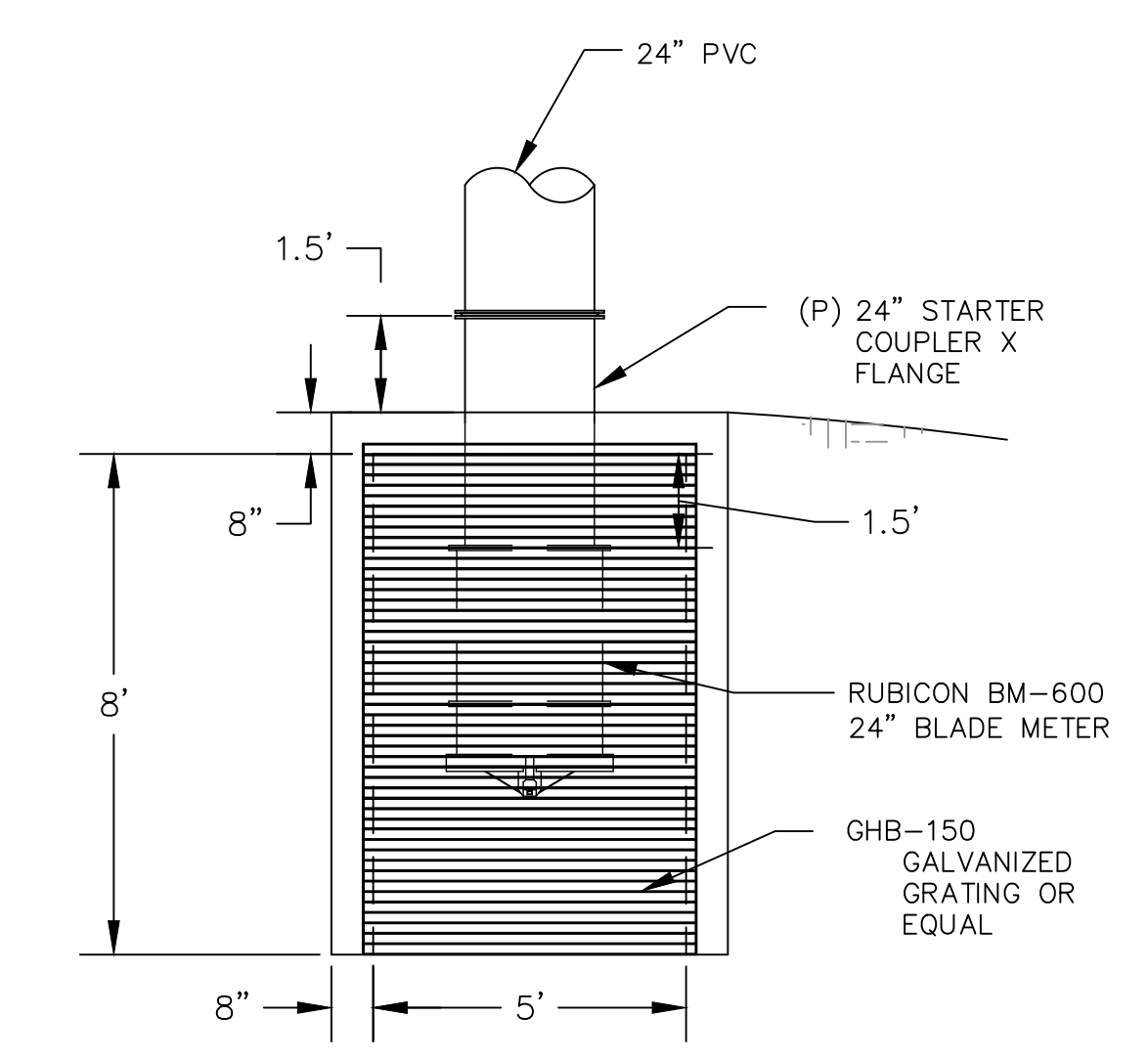
SHEET
8 OF **10**



1/8

SCALE: 1"=3'

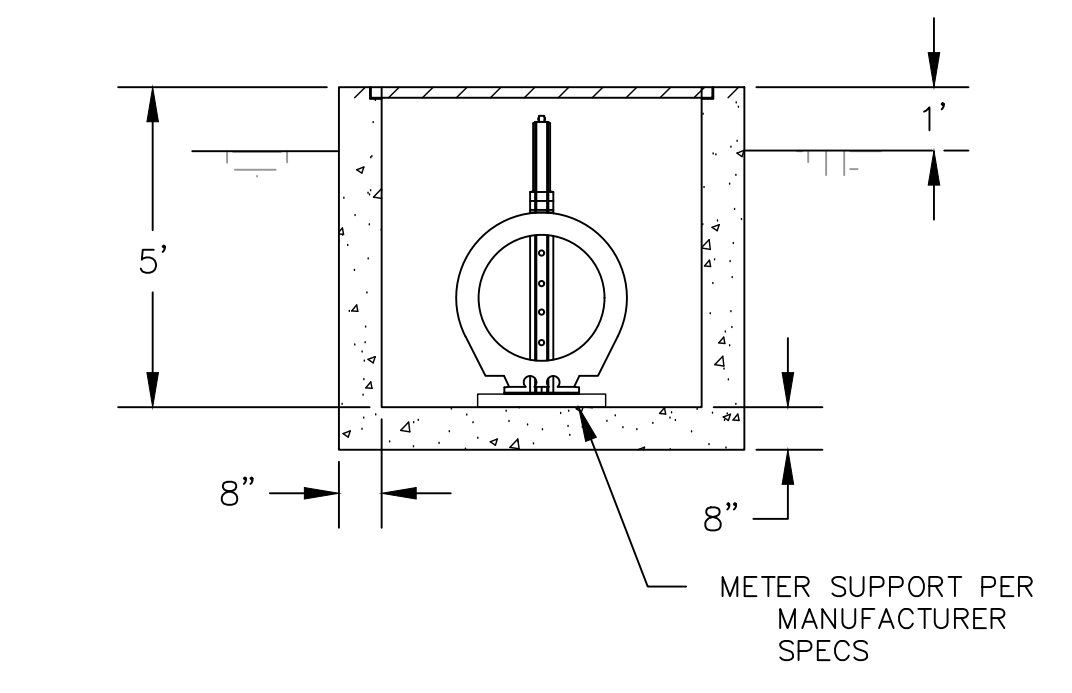
CANAL TURNOUT



4/8

SCALE: 1"=3'

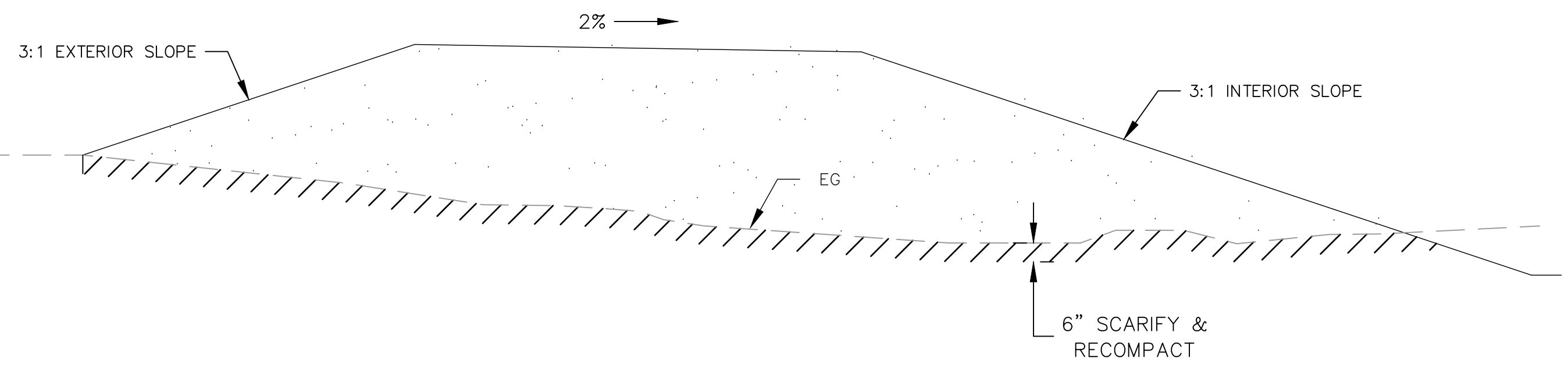
TURNOUT W/ BLADE METER



5/8

SCALE: 1"=3'

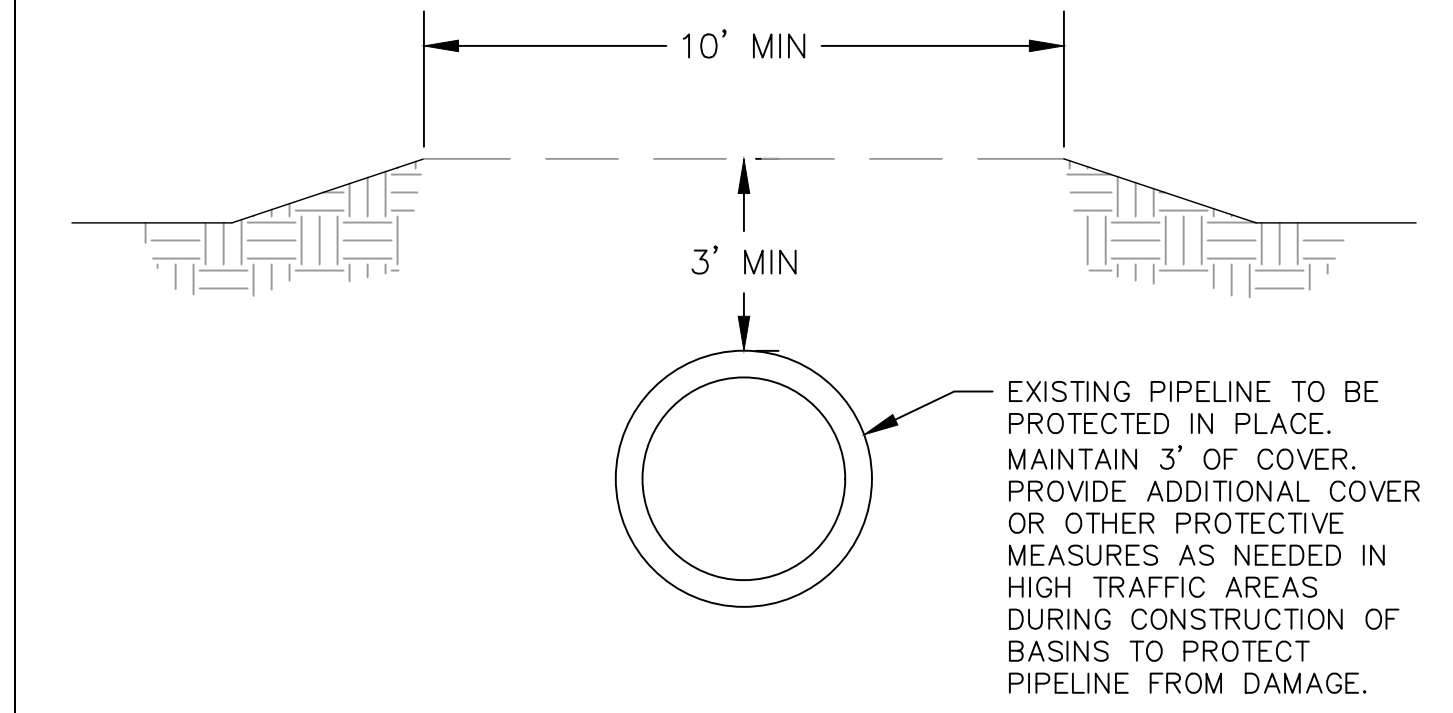
PIPE COVER



3/8

SCALE: 1"=3'

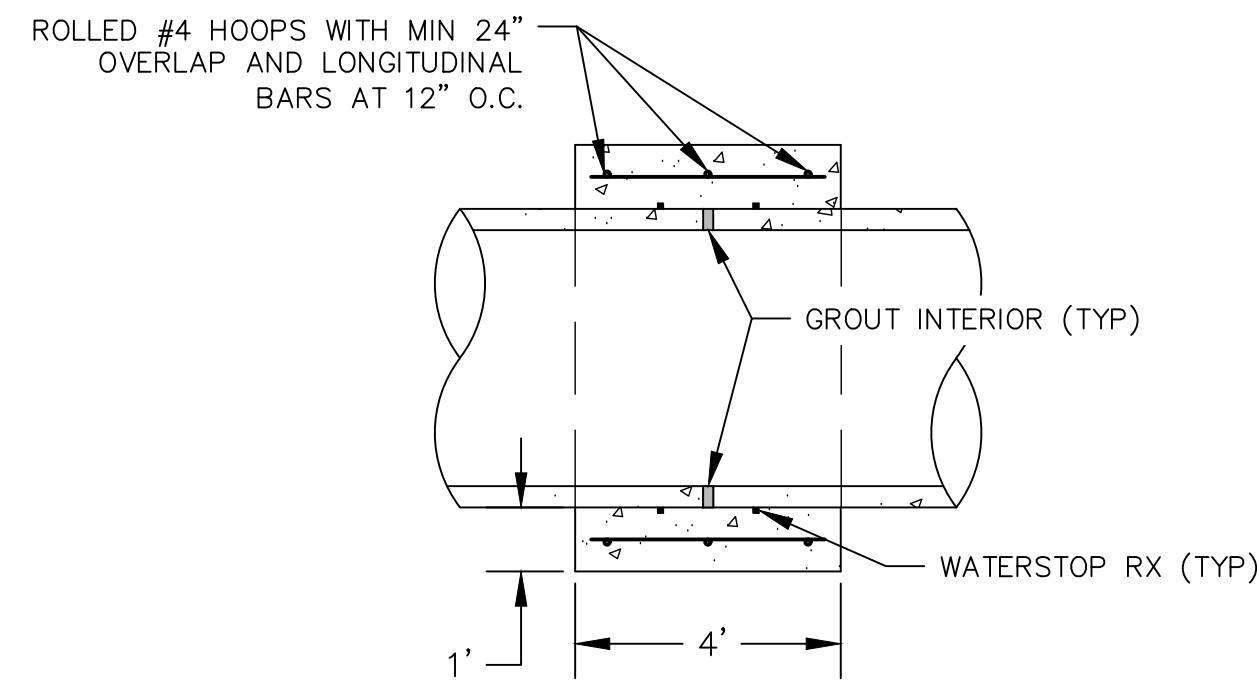
LOW FLOW CHANNEL



2/8

SCALE: 1"=3'

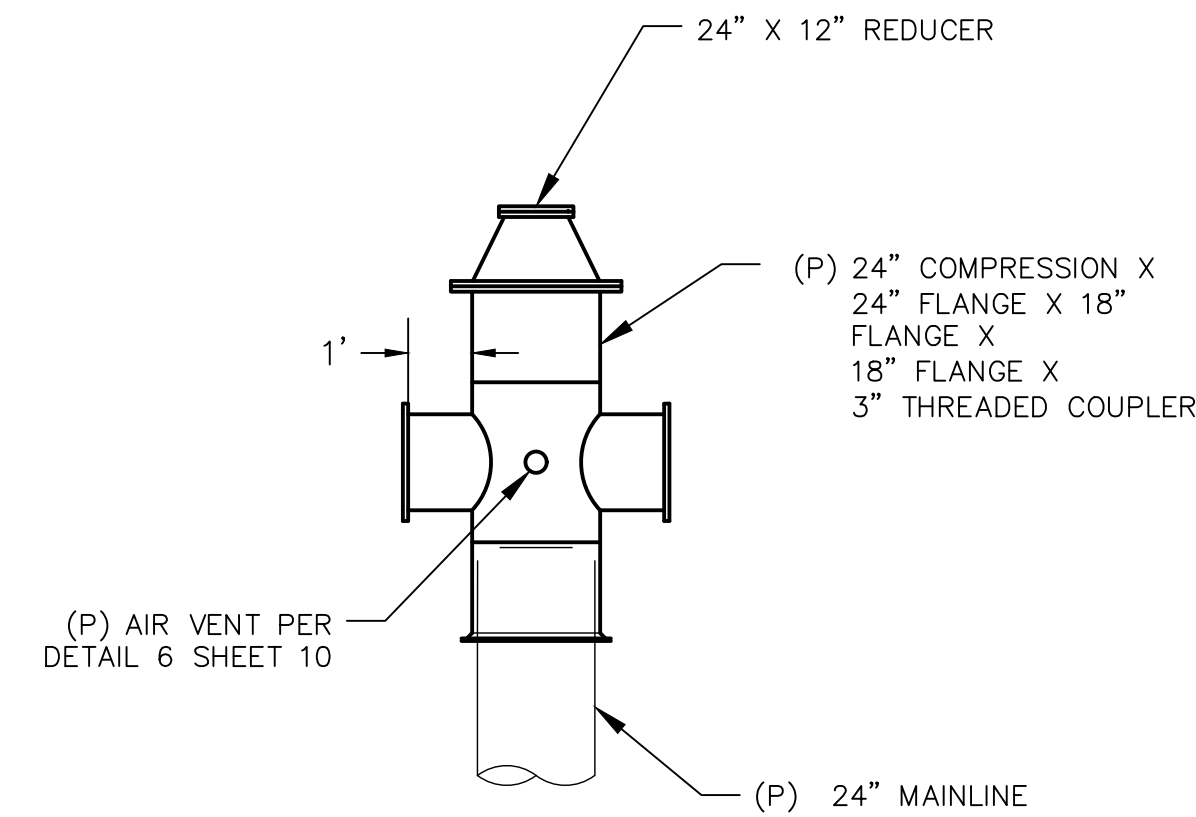
TYPICAL LEVEE SECTION



1
10

SCALE: 1"=3'

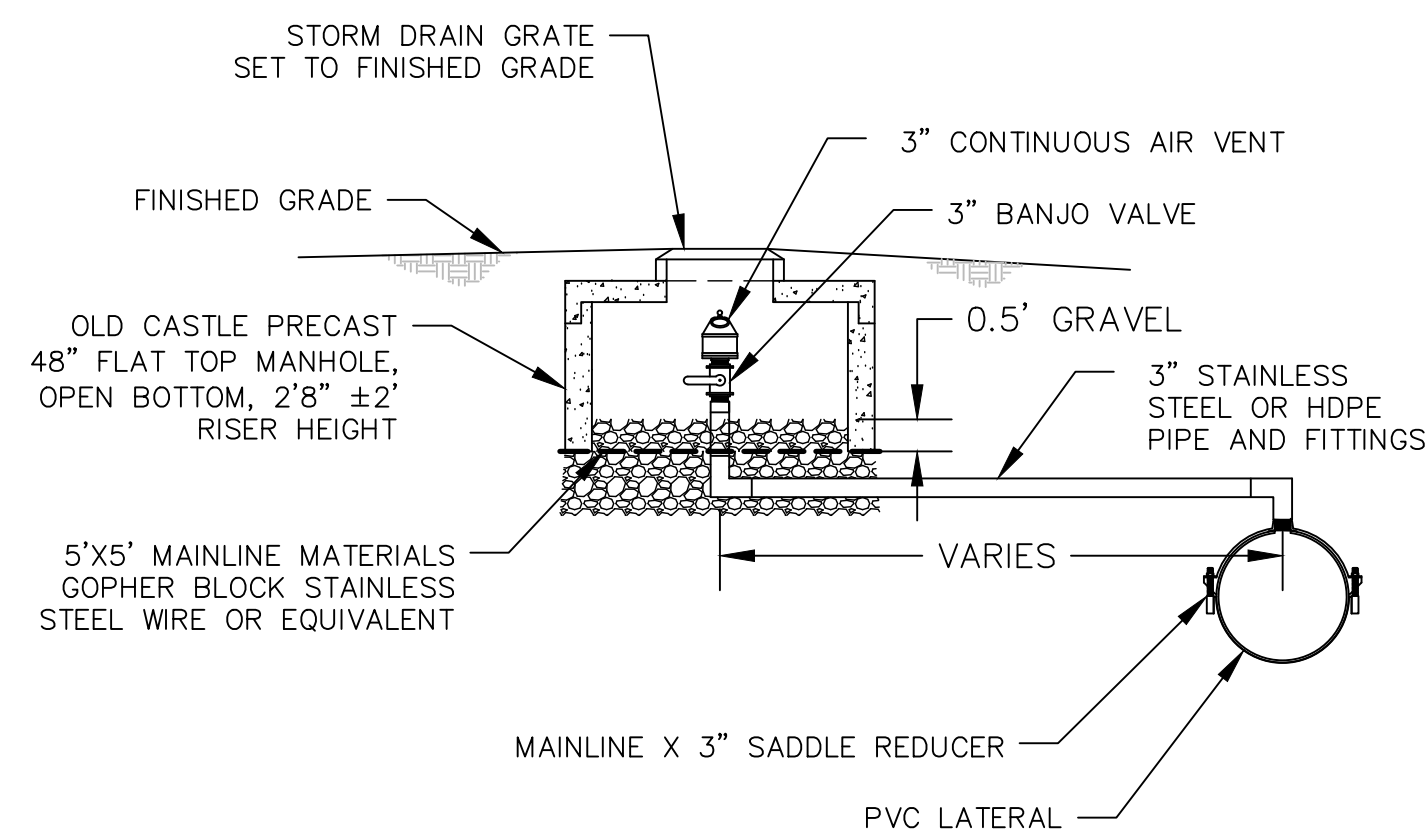
PIPE COLLAR



2
10

SCALE: 1"=3'

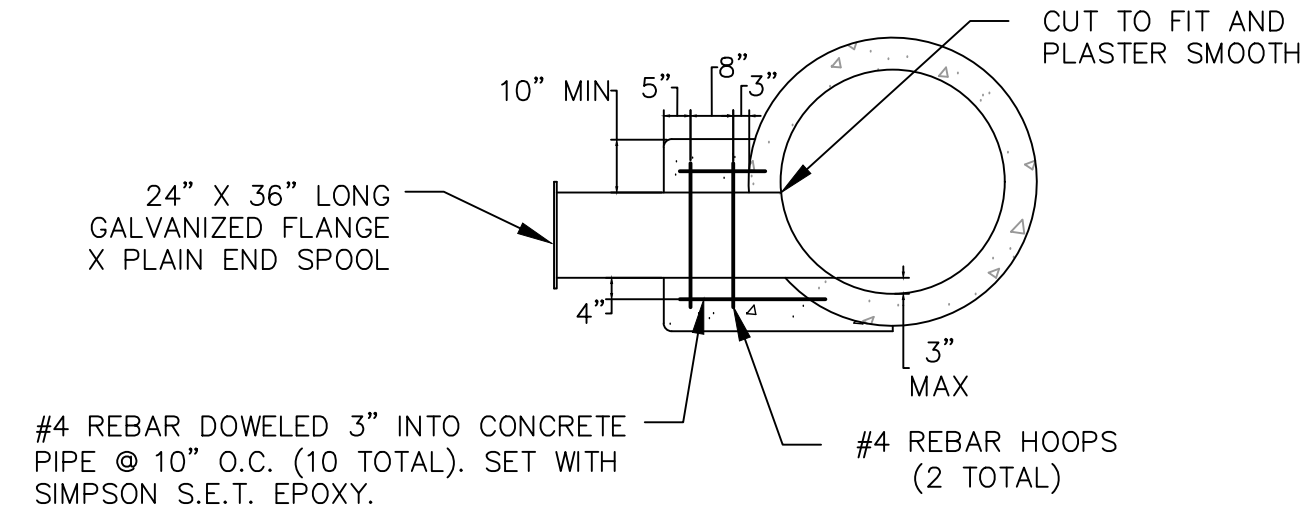
LATERAL CROSS



6
10

SCALE: 1"=3'

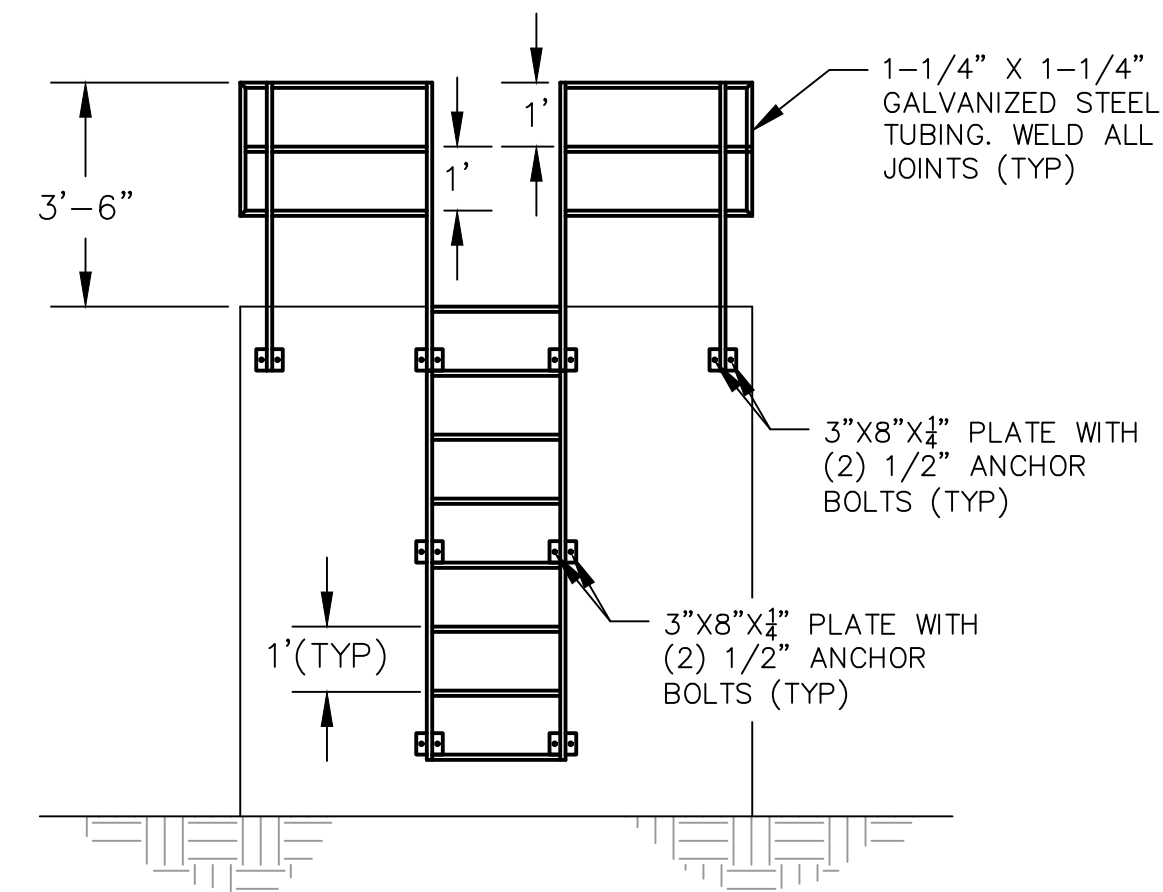
OFFSET AIR VENT



3
10

SCALE: 1"=1'

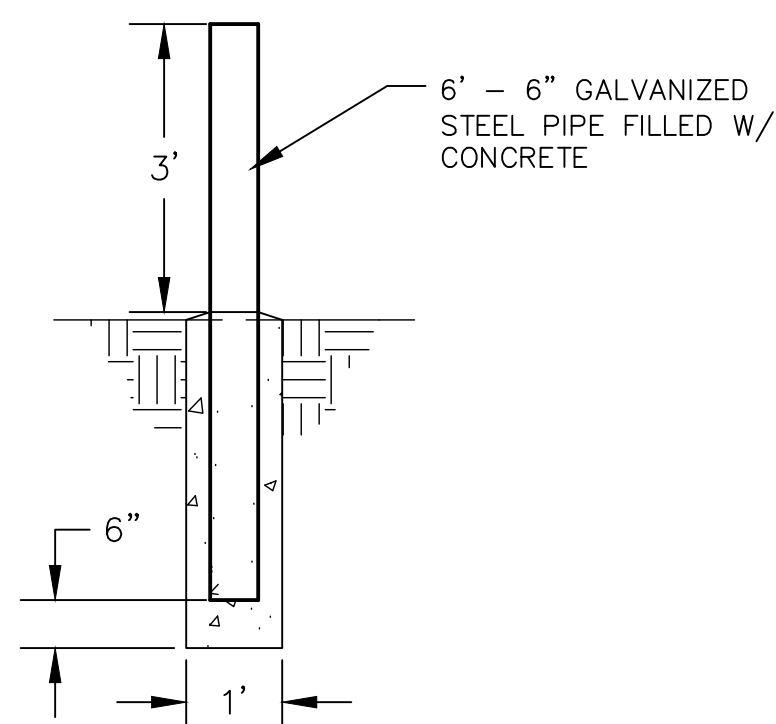
MAINLINE CONNECTION



5
10

SCALE: 1"=3'

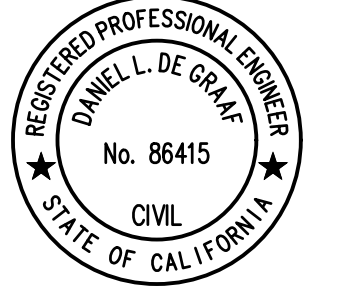
LADDER DETAIL



4
10

SCALE: 1"=2'

BOLLARD



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CONSTRUCTION PLANS
MISCELLANEOUS DETAILS

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10 OF 10