

NEVADA TAHOE CONSERVATION DISTRICT
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT
IN THE COUNTY OF DOUGLAS
EIP #01.01.01.17



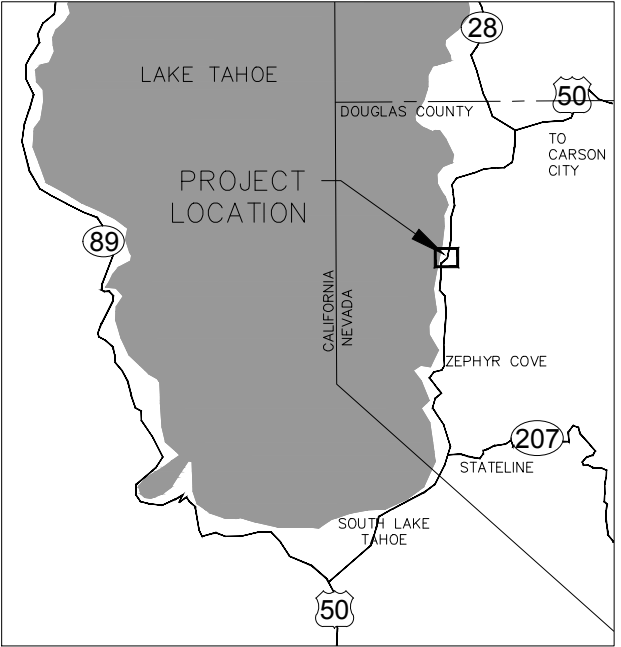
PLAN

SCALE: 1" = 150'



50% DESIGN PLANS
NOT FOR CONSTRUCTION

SHEET INDEX		
SHEET TITLE	SHEET NO.	PAGE NO.
TITLE	i	1
GENERAL NOTES	ii	2
INDEX	iii	3
STAGING, STORAGE, BMPs	G-1	4
HIGHWAY IMPROVEMENTS	C-1	5
DOUGLAS BLVD DRAINAGE	C-2	6
FRIEDHOFF DR DRAINAGE	C-3	7
REVEGETATION PLAN	R-1	8
DETAILS	D-1	9
DETAILS	D-2	10
DETAILS	D-3	11



VICINITY MAP

NOT TO SCALE

ENGINEER:

MEGHAN C. KELLY, P.E.
REGISTERED CIVIL ENGINEER
STATE OF NEVADA, NO. 20851
NEVADA TAHOE CONSERVATION DISTRICT
400 DORLA CT.
ZEPHYR COVE, NV 89448
(775) 586-1610

DATE

TITLE
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT

DESIGNED/DRAWN
MBC/CFW
CHECKED
MCK
DATE
11/16/2017
SCALE
AS SHOWN
PROJECT
PT
SHEET

i

1 OF 11

GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF NEVADA TAHOE CONSERVATION DISTRICT (NTCD) & THE NEVADA DEPARTMENT OF TRANSPORTATION (NDOT). IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND THE MOST RECENT STANDARD SPECIFICATIONS & PLANS FOR ROAD & BRIDGE CONSTRUCTION ("STANDARD SPECIFICATIONS"), AND CONSTRUCTION NOT SPECIFIED IN THESE PLANS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. THE CONTRACTOR IS OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL TECHNICAL PROVISIONS SHALL SUPERSEDE THOSE OF THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.
2. CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON SITE SHOWING "AS CONSTRUCTED" CHANGES. UPON COMPLETION, CONTRACTOR SHALL SUPPLY NDOT, DOUGLAS COUNTY, AND NTCD A SET OF "AS BUILT" PLANS. SEE SPECIAL PROVISIONS.
3. MOBILIZATION/STAGING AND STORAGE AREAS ARE TO BE SECURED BY THE CONTRACTOR AND APPROVED BY TRPA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF MOBILIZATION SITES, INCLUDING PLACEMENT AND MAINTENANCE OF BMPS.
4. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL INSTALL TEMPORARY BMP MEASURES AT LOCATIONS WHERE NEEDED TO CONTROL EROSION AND WATER POLLUTION DURING THE CONSTRUCTION OF THE PROJECT. THE BMP MEASURES SHALL REMAIN IN PLACE AND SHALL BE MAINTAINED IN A FUNCTIONAL CONDITION FOR THE DURATION OF THE CONSTRUCTION. DURING CONSTRUCTION ENVIRONMENTAL PROTECTION DEVICES, SUCH AS EROSION CONTROL, DUST CONTROL, AND VEGETATION PROTECTION DEVICES SHALL BE MAINTAINED AT ALL TIMES. SILT FENCE OR SEDIMENT LOGS WILL BE REQUIRED AT OTHER LOCATIONS AS SHOWN ON THE DRAWINGS OR STAKED IN THE FIELD BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL MEET OR EXCEED TRPA REQUIREMENTS.
5. ALL EXISTING VEGETATION SHALL BE PRESERVED UNLESS SPECIFICALLY IDENTIFIED BY THE ENGINEER FOR REMOVAL. BMP'S TO PROTECT VEGETATION SHALL BE INSTALLED BY THE CONTRACTOR IF REQUIRED BY TRPA. CONTRACTOR TO REVEGETATE ANY AREAS OUTSIDE THE DISTURBED AREA SHOWN ON THE PLANS WITH PLANTS APPROVED BY TRPA AT THEIR OWN EXPENSE.
6. NTCD WILL PROVIDE ONE SET OF CONSTRUCTION STAKES AT NTCD'S EXPENSE. ADDITIONAL CONSTRUCTION STAKES WILL BE PROVIDED AT THE CONTRACTOR'S EXPENSE. LIMITS FOR ALL ITEMS OF WORK SHALL BE STAKED IN THE FIELD BY THE ENGINEER. THESE LIMITS AND THE RESULTING TREATMENT LENGTH/AREAS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS. PAYMENT FOR ITEMS OF WORK WILL BE MADE FOR THE AMOUNT AUTHORIZED BY THESE FIELD STAKED LIMITS AND THE SPECIAL TECHNICAL PROVISIONS.
7. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. WHERE EXCAVATION IS NECESSARY, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AND ALL AFFECTED UTILITY COMPANIES TO LOCATE ALL BURIED UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR RELOCATION OF UTILITIES AS REQUIRED BY THE WORK. WHENEVER CONNECTIONS TO OR CLEARANCE FROM ANY UTILITY IS REQUIRED, THE CONTRACTOR SHALL POTHOLE TO VERIFY THE LOCATION, SIZE AND MATERIAL OF THE UTILITY PRIOR TO CONSTRUCTION. NOTE THAT MANY OF THE UTILIZES ARE PRIVATE AND MAY NOT BE IDENTIFIED BY USA.
8. ASPHALT REPLACEMENT SHALL INCORPORATE A 4% ±1% CROSS SLOPE BETWEEN THE SAWCUT AND THE NEW ROADSIDE TREATMENT. NEW ROADSIDE FLOW CONVEYANCES SHALL INCORPORATE SUCH GRADE AS NECESSARY TO GUARANTEE WATER CONTINUES TO FLOW IN THE PRESENT DIRECTION, WITHOUT PONDING OR BREAKOUTS.
9. ANY DAMAGE DONE BY THE CONTRACTOR OR HIS SUBCONTRACTORS TO PRIVATE PROPERTY AND/OR OUTSIDE OF THE NOTED LIMITS OF WORK IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND/OR HIS SUBCONTRACTORS.
10. THE CONTRACTOR WILL PROVIDE INITIAL TESTING AND INSPECTION OF WORK AND MATERIAL AT CONTRACTOR'S EXPENSE. THE COST OF REMOVAL AND/OR REPLACEMENT OF ANY DEFECTIVE WORK OR MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF RETESTING AND/OR INSPECTING OF REPLACED WORK AND MATERIAL IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR. SUCH COSTS WILL BE DEDUCTED FROM ANY MONEYS DUE OR WHICH MAY BECOME DUE TO THE CONTRACTOR.
11. STANDARD WORK DAYS SHALL BE MONDAY THROUGH FRIDAY. SATURDAY AND SUNDAY MAY BE WORKED ON OCCASION ONLY TO MAKE UP FOR WEATHER DELAYS OR OTHER SCHEDULE DELAYS WITH TRPA APPROVAL. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
12. NOISE SHALL BE REDUCED BY THE MANDATORY USE OF MUFFLERS ON ALL CONSTRUCTION VEHICLES AND EQUIPMENT. WHERE FEASIBLE, SOLENOIDAL PAVEMENT BREAKERS WILL BE USED IN LIEU OF AIR POWERED JACK HAMMERS. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
13. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK TO WATER AREAS AS NECESSARY TO CONTROL DUST. THE CONTRACTOR WILL PROVIDE SWEEPING PER SPECIFICATION.
14. ALL TREES AND NATURAL VEGETATION TO REMAIN ON THE SITE SHALL BE PROTECTED PER TRPA.
15. SOIL AND CONSTRUCTION MATERIAL SHALL NOT BE TRACKED OFF THE CONSTRUCTION SITE. GRADING OPERATIONS SHALL CEASE IN THE EVENT THAT A DANGER OF VIOLATING THIS CONDITION EXISTS.
16. LOOSE SOIL MOUNDS OR SURFACES SHALL BE PROTECTED FROM WIND OR WATER EROSION BY BEING APPROPRIATELY COVERED WHEN CONSTRUCTION IS NOT IN ACTIVE PROGRESS OR WHEN REQUIRED BY TRPA.
17. EXCAVATED MATERIAL SHALL BE STORED UPGRADE FROM THE EXCAVATED AREA WHENEVER POSSIBLE. NO MATERIAL SHALL BE STORED IN ANY STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA.
18. ONLY EQUIPMENT OF A SIZE AND TYPE THAT WILL DO THE LEAST AMOUNT OF DAMAGE, UNDER PREVAILING SITE CONDITIONS, AND CONSIDERING THE NATURE OF THE WORK TO BE PERFORMED, WILL BE USED.
19. NO WASHING OF VEHICLES OR HEAVY EQUIPMENT, INCLUDING CEMENT MIXERS, SHALL BE PERMITTED ANYWHERE ON THE SUBJECT PROPERTY UNLESS AUTHORIZED BY TRPA IN WRITING.
20. NO VEHICLE OR HEAVY EQUIPMENT SHALL BE ALLOWED IN A STREAM ENVIRONMENT ZONE OR WET AREA EXCEPT AS AUTHORIZED BY TRPA.
21. ALL CONSTRUCTION SHALL BE WINTERIZED BY OCTOBER 15 TO REDUCE THE WATER QUALITY IMPACTS ASSOCIATED WITH WINTER WEATHER.
22. THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE NDOT RIGHT-OF-WAYS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SYSTEM.
23. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LONGER THAN 24 HOURS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED.
24. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMP'S WEEKLY, PRIOR TO A FORECASTED RAIN EVENT AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS FROZEN GROUND CONDITIONS OF SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO STORM WATER GENERAL PERMIT NVR100000, SECTION 1.B.1.g. AND THE PROJECT SWPPP

25. TRAFFIC CONTROL AND LANE CLOSURES WILL BE PER NDOT STANDARD SPECIFICATIONS.
26. ACCESS TO HOMES AND PUMP STATIONS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION

ABBREVIATIONS

NOT ALL ABBREVIATIONS LISTED ARE USED IN THESE PLANS

A.B.	AGGREGATE BASE
AC.	ACRE
AC OR A.C.	ASPHALT CONCRETE OR ASBESTOS CEMENT
@	AT
APPROX.	APPROXIMATE
AVG.	AVERAGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BEGIN CURVE
BGN	BEGIN
C&G	CURB AND GUTTER
CATV	CABLE TELEVISION
C.B.	CATCH BASIN
CBM	CHANNEL BED MATERIAL
CL	CENTERLINE
CLF	CONSTRUCTION LIMIT FENCE
CLR.	CLEAR
CO.	CLEAN OUT
CONST.	CONSTRUCT
CF	CUBIC FEET
CMP	CORRIGATED METAL PIPE
CMAF	CORRIGATED METAL ARCH PIPE
CY	CUBIC YARD
DBH	DIAMETER AT BREAST HEIGHT
DEG	DEGREE(S)
D.G.	DECOMPOSED GRANITE
DI	DROP INLET
DIA.	DIAMETER
DR	DIMENSION RATIO
DWG	DRAWING
DW, DWY	DRIVEWAY
EA.	EACH
EASE.	EASEMENT
EG	EXISTING GRADE
ELEC	ELECTRIC
EP	EDGE OF PAVEMENT
ELEV. OR EL	ELEVATION
EC	END CURVE
EWEF	EACH WAY EACH FACE
EX.	EXISTING
FG	FINISH GRADE
FH	FIRE HYDRANT
FCA	FLANGE COUPLER ADAPTER
FES	FLARED END SECTION (METAL)
FF	FILTER FENCE
FL	FLOWLINE
FLG	FLANGED
FT.	FOOT, FEET
FTG	FOOTING
FV	FLUSH VALVE
.	DEGREE
G	GAS
GV	GATE VALVE
GB	GRADE BREAK
HDPE	HIGH DENSITY POLYETHYLENE
HDPE-NP	NON-PERFORATED HIGH DENSITY POLYETHYLENE
HDPE-P	PERFORATED HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
HOR., HORIZ.	HORIZONTAL
HWY	HIGHWAY
IN.	INCH
IE	INVERT ELEVATION
IRR.	IRRIGATION
IVGID	INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT
L	LEFT
LEN.	LENGTH
LF	LINEAR FEET
LID	LOW IMPACT DEVELOPMENT
LP	LOW POINT
LS	LUMP SUM
MH	MANHOLE
MAX.	MAXIMUM

UTILITIES

CABLE TELEVISION
NATURAL GAS
ELECTRIC
STORM DRAIN
SEWER
WATER
PHONE
USA DIGS

CHARTER COMMUNICATIONS, (775) 588-1077
N/A
NV ENERGY, (775) 834-4444
DOUGLAS COUNTY PUBLIC WORKS (775) 782-9989
DOUGLAS COUNTY SEWER IMPROVEMENT DISTRICT (775) 588-3558
PRIVATE SYSTEMS
FRONTIER (775) 782-0966
(800) 642-2444 OR 811

MDD	MAXIMUM DRY DENSITY
MJ	MECHANICAL JOINT
MI.	MILE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
N	NORTH
NAC	NEVADA ADMINISTRATIVE CODE
N.I.C.	NOT IN CONTRACT
NDOT	NEVADA DEPT OF TRANSPORTATION
NTCD	NEVADA TAHOE CONSERVATION DISTRICT
N.T.S.	NOT TO SCALE
NO.	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFSET
OG	ORIGINAL GRADE
OH(E/T)	OVERHEAD ELECTRIC OR TELEPHONE LINES
±	PLUS OR MINUS
PT.	POINT
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT
PC	POINT OF CURVATURE
PI	POINT OF INFLECTION
PIP	PROTECT IN PLACE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
POC	POINT ON CURVE
POS	POSITIVE
PRC	POINT OF REVERSE CURVE
PSI	POUNDS PER SQUARE INCH
PL	PROPERTY LINE
PO	PUSH ON
PUE	PUBLIC UTILITY EASEMENT
R	RADIUS
RECV	REINFORCED CONCRETE PIPE
REVEG	REVEGATION
RLC	ROCK LINED CHANNEL
RT,R	RIGHT
R/W, ROW	RIGHT-OF-WAY
S	SLOPE OR SOUTH
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FOOT/FEET
SHT	SHEET
STA	STATION
STD	STANDARD
SS	SANITARY SEWER, STAINLESS STEEL
SSCO.	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
SY	SQUARE YARD
TBC	TOP BACK OF CURB
TOC	TOP OF CURB
TRPA	TAHOE REGIONAL PLANNING AGENCY
TW	TOP OF WALL
(TYP)	TYPICAL
UGE	UNDERGROUND ELECTRIC LINES
UGT	UNDERGROUND TELEPHONE LINES
VC	VERTICAL CURVE
VG	VALLEY GUTTER
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INFLECTION
VPT	VERTICAL POINT OF TANGENT
W	WATER
WL	WATERLINE
W	WEST
W/	WITH
WM	WATER METER

LEGEND

NOTE: LEGENDS PROVIDED ON INDIVIDUAL PLAN SHEETS OVERRIDE THIS LEGEND

EXISTING		PROPOSED	
	MAJOR CONTOUR		MAJOR CONTOUR
	MINOR CONTOUR		MINOR CONTOUR
	EXISTING MAJOR CONTOUR LABEL		PROPOSED MAJOR CONTOUR LABEL
	EXISTING ALIGNMENT		PROPOSED ALIGNMENT(ROAD CENTERLINE)
	EXISTING GRADE (SECTION VIEW)		GRADING DAYLIGHT LINE/GRADING LIMIT
	PROPERTY LINE		GRADING LINE/FEATURE LINE
	EXISTING FENCE		PROPOSED GRADE (SECTION VIEW)
	OR PAVEMENT		CONSTRUCTION LIMIT FENCE
	STORM DRAIN LINE		FILTER FENCE
	CATCH BASIN		SEDIMENT ROLL
	STORM DRAIN MANHOLE		EROSION CONTROL BLANKET
	WATER LINE		STAGING AREA
	WATER METER/ VALVE		PROPOSED PIPE
	SANITARY SEWER LINE		PROPOSED CONCRETE
	SANITARY SEWER MANHOLE		PROPOSED VEGETATION/WILLOW
	OVERHEAD ELECTRIC LINE		ROCK LINED CHANNEL (PLAN VIEW)
	POWER POLE		SEDIMENT REMOVAL
	UNDER GROUND TELEPHONE LINES		
	OVERHEAD TELEPHONE LINES		
	UNDERGROUND FIBER OPTIC LINES		
	UNDERGROUND GAS LINES		
	DRAINAGE		
	TREE		
	FIRE HYDRANT		
	CURB		
	OR CONCRETE		
	CONTROL POINT		
	BUILDING		
	PRIVATE DRIVEWAY		
	SIGN		
	ROCK LINED CHANNEL		
	EXISTING ROCK WALL		
125-382-13	ASSESSOR PARCEL NUMBER		
JOHN A. SMITH	OWNER (PRIVATE LOT)		

- 3

D-5
- SECTION OR DETAIL IDENTIFICATION
- NUMBER OF SHEET ON WHICH SECTION OR DETAIL IS DRAWN
- 3

-
- SECTION OR DETAIL IDENTIFICATION
- SYMBOL FOR DETAIL ON THE SAME SHEET

HORIZONTAL AND VERTICAL PROJECTION

VERTICAL CONTROL IS DATUM NAVD 88 (US FEET);
HORIZONTAL CONTROL IS HORIZONTAL DATUM NAD 83 STATE PLANE COORDINATE SYSTEM
NEVADA ZONE WEST (U.S. FEET).

50% DESIGN PLANS
NOT FOR CONSTRUCTION

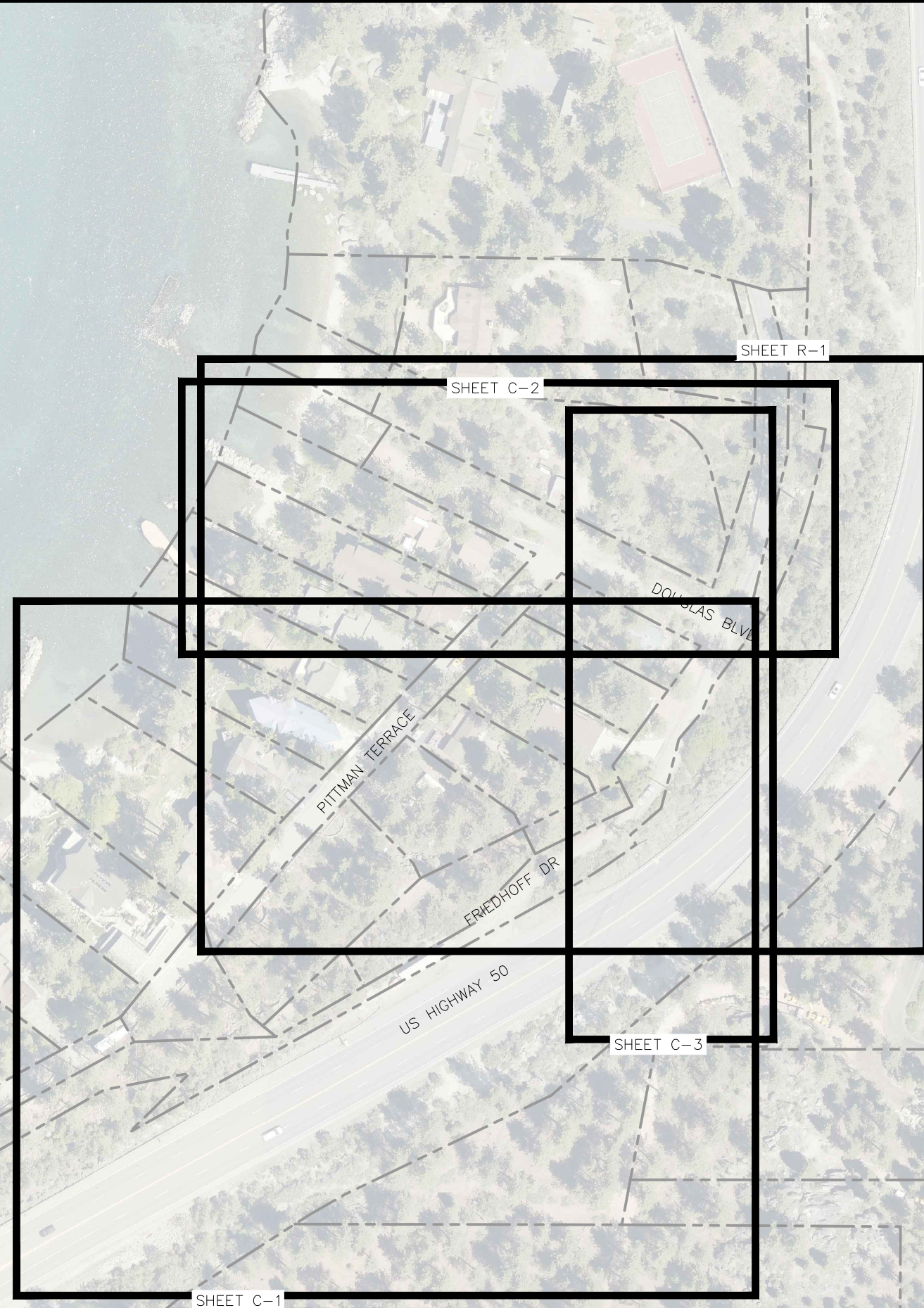


GENERAL NOTES
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT

DESIGNED/DRAWN MBC/CFW
CHECKED MCK
DATE 11/16/2017
SCALE AS SHOWN
PROJECT PT
SHEET

50% DESIGN PLANS
NOT FOR CONSTRUCTION

0 60 120
SCALE IN FEET

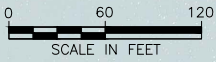


INDEX
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MBG/CFW
CHECKED
MCK
DATE
11/16/2017
SCALE
AS SHOWN
PROJECT
PT
SHEET

50% DESIGN PLANS
NOT FOR CONSTRUCTION

- NOTES:
1. CONTRACTOR SHALL INSTALL BMPS AS NECESSARY TO PREVENT SEDIMENT LADEN RUN OFF FROM REACHING DRAINAGES. ADDITIONAL BMPS NOT SHOWN ON THIS SHEET MAY BE NECESSARY.
 2. DRAINAGE DITCHES MAY NEED CLEARING OF EXISTING VEGETATION



PROPOSED TREE REMOVAL

6"-14" DBH	1
15"-22" DBH	0
23" -29" DBH	0
30" OR GREATER	1

(2)(3)
D-1 D-1

INSTALL FIBER ROLL OR
FILTER FENCE ON DOWNHILL
SIDE OF STAGING

EXIST ROCK
STEPS

EXIST DIRT ROAD.
PROTECT DRIVEWAY
ACCESS

STAGING AREA 1
±3,000 SF
DRIVEWAY ACCESS TO
BE MAINTAINED

LAND CAPABILITY LINE (TYP)

LAND CAPABILITY LABEL (TYP)

PROJECT BOUNDARY

INSTALL TEMPORARY CHECK
DAMS AS NECESSARY DURING
CONSTRUCTION TO PREVENT
SEDIMENT LADEN RUN OFF
±550 LF

(5)
D-1

INSTALL
CONSTRUCTION
ENTRANCE

INSTALL DI
PROTECTION
(TYP)
3 TOTAL

(4)
D-1

INSTALL TEMPORARY PROJECT
SIGN AS DIRECTED BY
ENGINEER

(1)
D-1

STAGING AREA 2
±1,800 SF
SURROUND WITH
K-RAIL OR APPROVED
EQUAL

US HIGHWAY 50

(2)(3)
D-1 D-1

INSTALL FIBER ROLL OR
FILTER FENCE ON DOWNHILL
SIDE OF STAGING

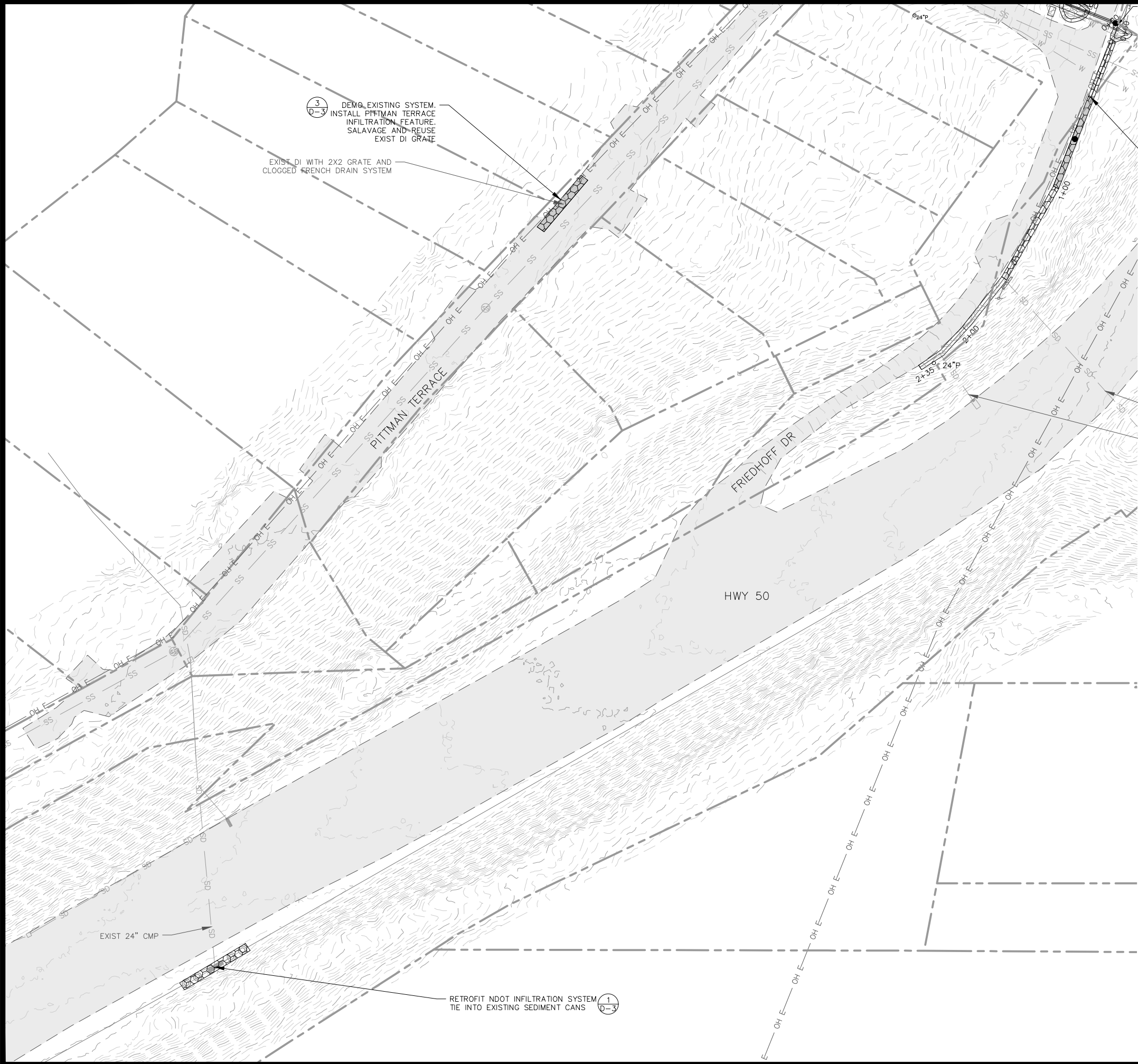
STAGING, STORAGE, AND TEMPORARY BMP
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT

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11/16/2016
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SHEET

G-1
4 OF 11





3
D-3 DEMO. EXISTING SYSTEM.
INSTALL PITTMAN TERRACE
INFILTRATION FEATURE.
SALVAGE AND REUSE
EXIST DI GRATE

EXIST DI WITH 2X2 GRATE AND
CLOGGED FRENCH DRAIN SYSTEM

SEE SHEET C-4 FOR IMPROVEMENTS ON FRIEDHOFF DR

EXIST 24" CMP

EXIST 12" CMP

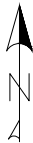
HWY 50

EXIST 24" CMP

RETROFIT NDOT INFILTRATION SYSTEM
TIE INTO EXISTING SEDIMENT CANS 1
D-3

NOTES:
1. ALL UTILITY HORIZONTAL AND VERTICAL LOCATIONS TO BE VERIFIED BY
CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY
CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF
THE ENGINEER.

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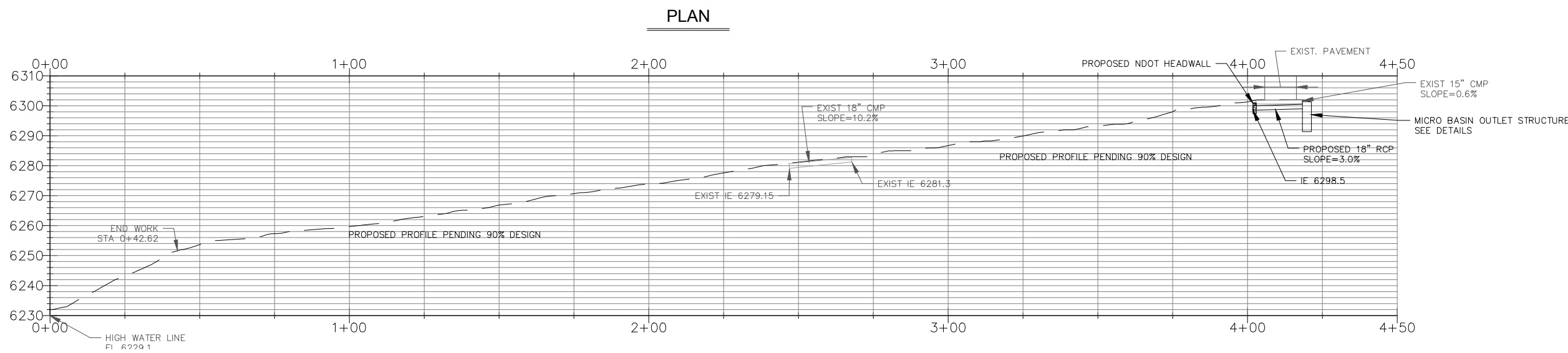
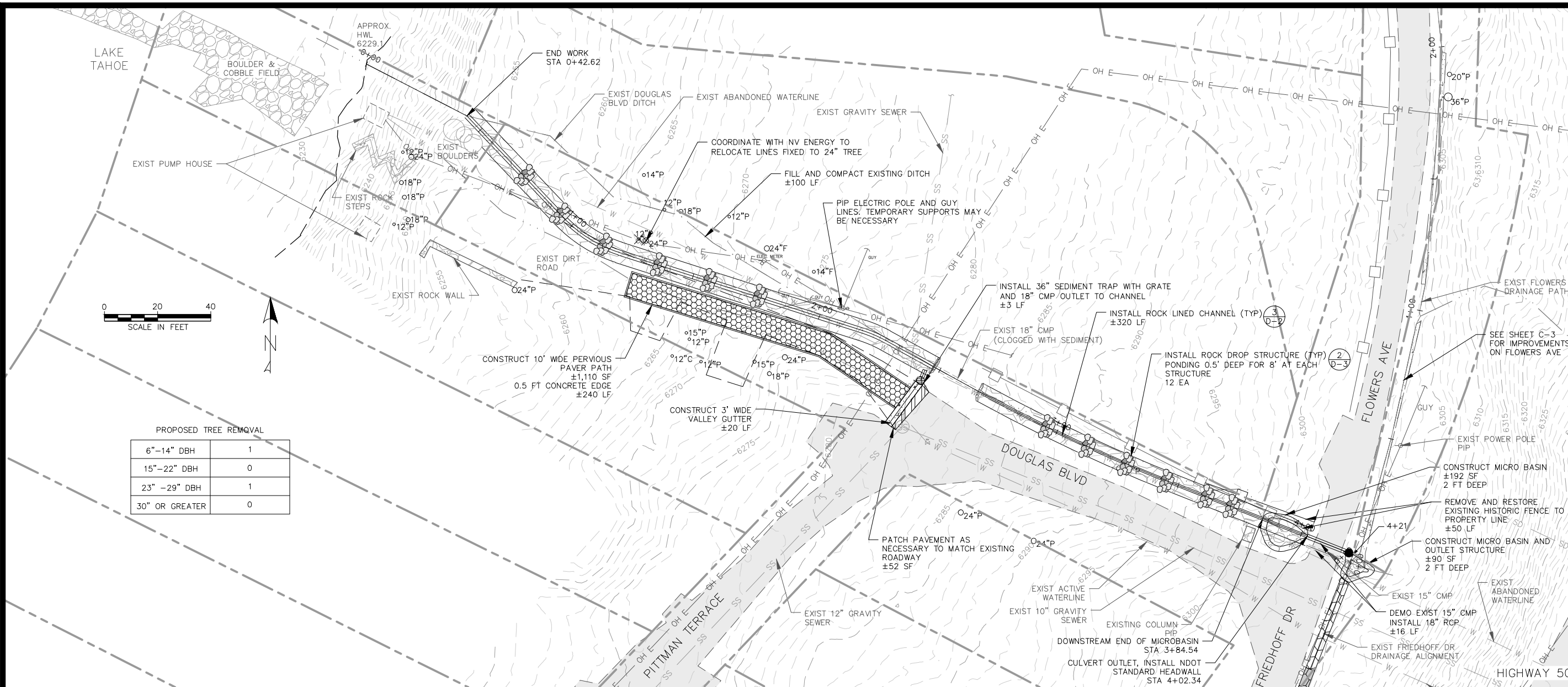


HIGHWAY 50 IMPROVEMENTS
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT

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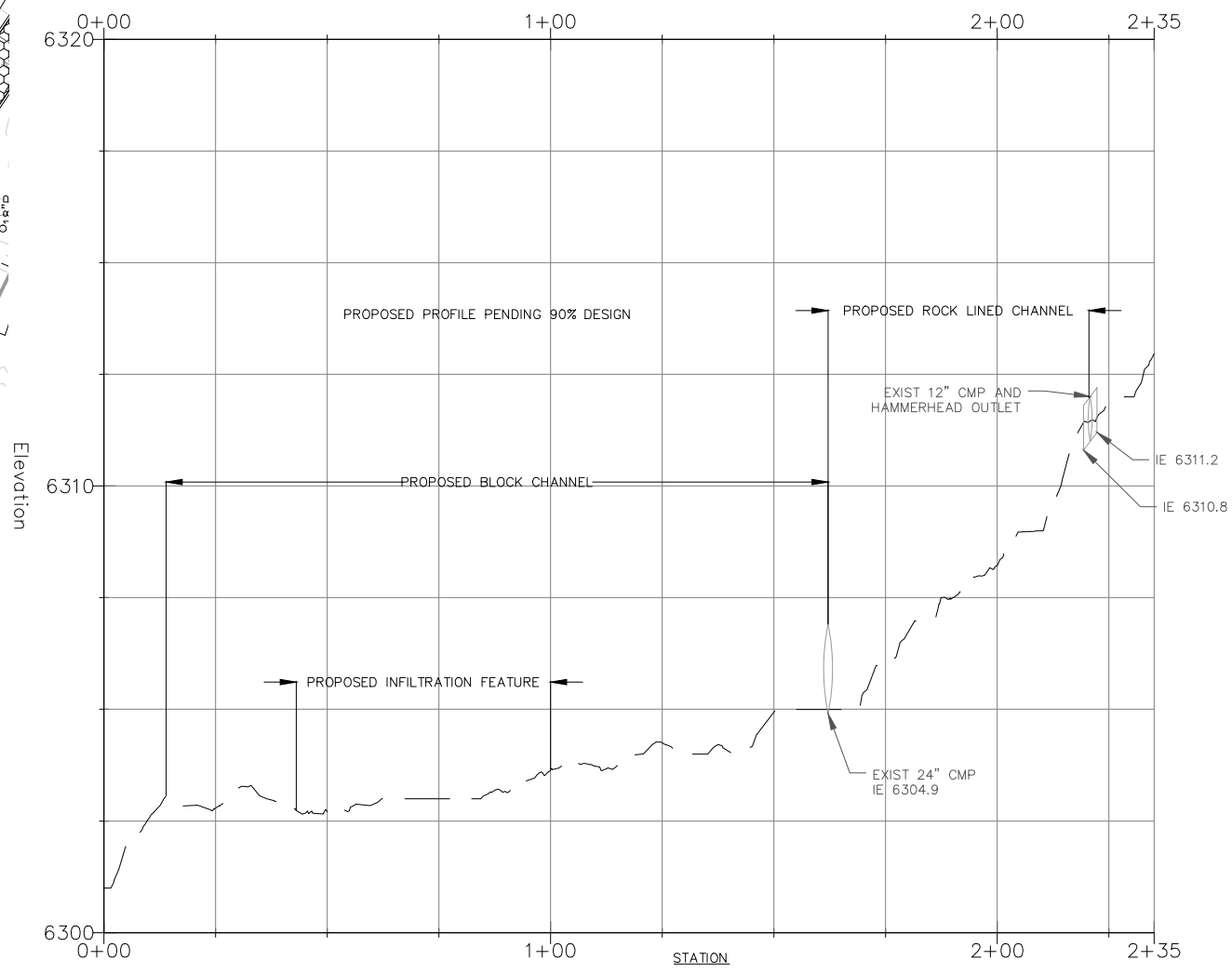
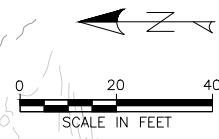
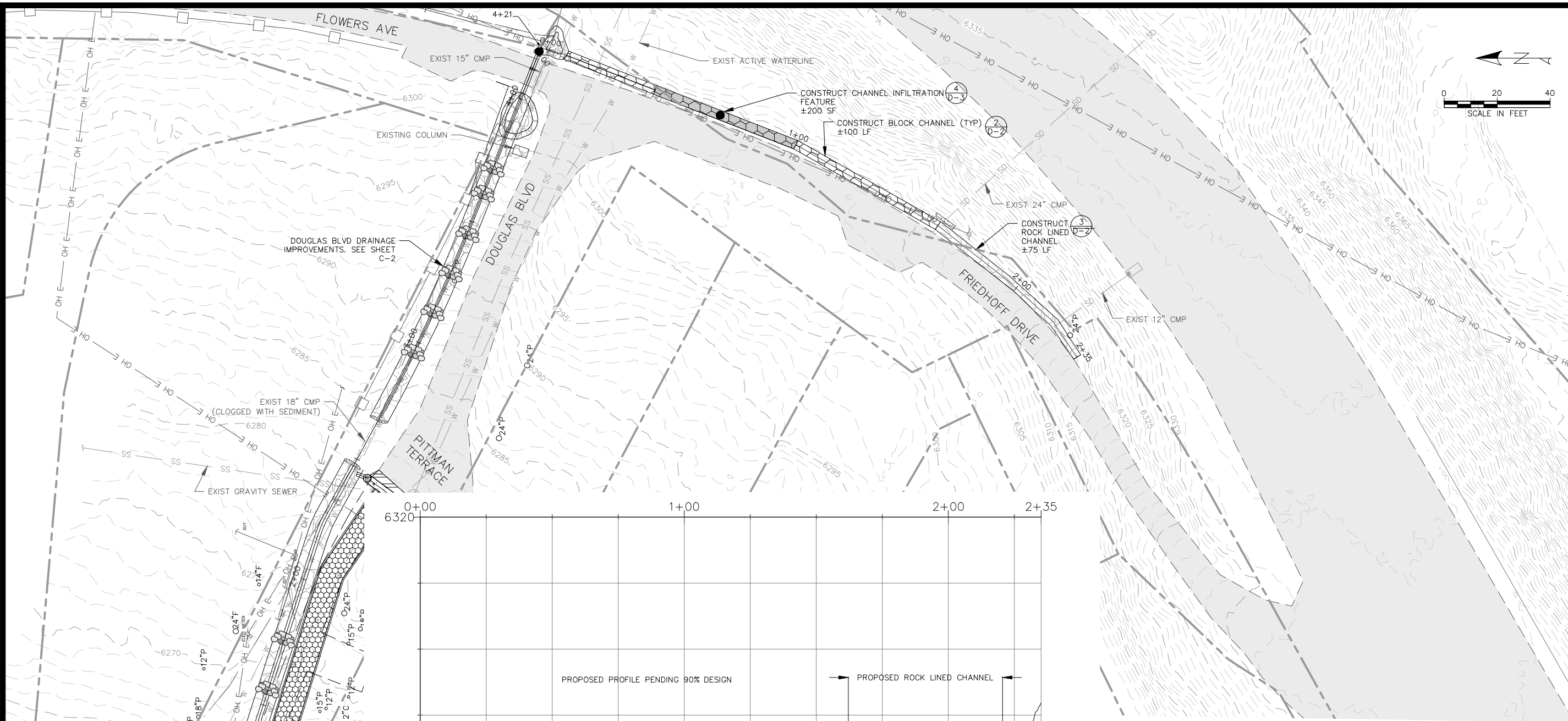
SHEET

C-1
8 OF 11



50% DESIGN PLANS
NOT FOR CONSTRUCTION

- NOTES:
- ALL UTILITY HORIZONTAL AND VERTICAL LOCATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
 - COORDINATE WITH NV ENERGY ON PROTECTING UTILITIES IN PLACE OR RELOCATING AS NECESSARY.



PLAN

NOTES:
1. ALL UTILITY HORIZONTAL AND VERTICAL LOCATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

50% DESIGN PLANS
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Nevada Tahoe
Conservation District

FRIEDHOFF AVE DRAINAGE
PITTMAN TERRACE WATER QUALITY
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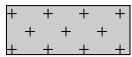
SHEET

C-3

7 OF 11



REVEGETATION LEGEND

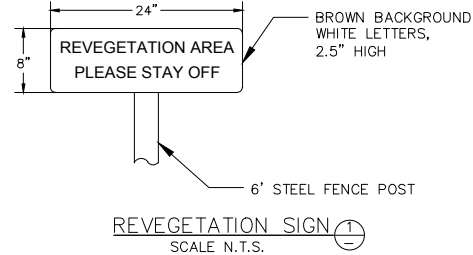


TREATMENT TYPE 1: DITCHES (±3,570 SF)

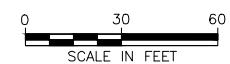


TREATMENT TYPE 2: SHOULDERS AND
OTHER DISTURBED UPLAND (±3,766 SF)

NOTES:
1. SEE SPECIAL PROVISIONS FOR REVEGETATION DETAILS.



50% DESIGN PLANS
NOT FOR CONSTRUCTION



REVEGETATION PLAN
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT

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PROJECT PT
SHEET R-1 8 OF 11

1. CONTRACTOR SHALL CONTACT NTCO FOR THE LETTER FONT, STYLE, SIZE, SPACING, AND GRAPHIC ART. SIGN MAY BE ADJUSTED BY THE CONTRACTOR AS NEEDED TO CREATE THE HIGHEST QUALITY CRAFTSMANSHIP DISPLAYED BY THE FINISHED PRODUCT.

2. LOCATION AS DIRECTED BY ENGINEER.



SCALE: N.T.S.

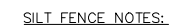
1
D-1



1. FIBER ROLL SHALL NOT BE MADE FROM STRAW, FIBER ROLLS SHALL BE BOUND BY HIGH STRENGTH COIR NETTING, AND HAVE A MINIMUM WEIGHT OF 5 LBS PER LINEAL FOOT.
2. ORANGE SAFETY FENCE IS INTENDED TO PROTECT FIBER ROLLS FROM COMPRESSION BY VEHICLES, CONSTRUCTION EQUIPMENT, ETC. FENCES SHALL BE HIGH DENSITY POLYETHYLENE WITH A MESH OPENING OF APPROXIMATELY 1 INCH BY 4 INCHES AND A MINIMUM HEIGHT OF 4 FEET. SAFETY FENCE MAY BE OMITTED IN LOW TRAFFIC AREAS.
3. FIBER ROLL SILT BARRIER SHALL BE INSTALLED ALONG CONTOUR AND ON SLOPES 5H:1V OR FLATTER UNLESS OTHERWISE APPROVED BY TRPA.
4. THE INSTALLATION CONFIGURATION SHALL PREVENT RUNOFF FROM LEAVING THE SITE OR ENTERING A WATERCOURSE WITHOUT PASSING THROUGH A SILT BARRIER.
5. THE MAXIMUM LENGTH OF SLOPE DRAINING TO THE SILT BARRIER SHALL BE 100 FEET.
6. FIBER ROLL SHALL BE INSTALLED BY SHAPING A 4 INCH DEEP FURROW TO MATCH THE SHAPE OF THE LOG, SECURING IN FURROW WITH WOOD STAKES, AND TAMPING THE GROUND AROUND THE FIBER ROLL TO FILL VOIDS BETWEEN THE LOG AND THE GROUND.

FIBER ROLL SILT BARRIER

SCALE: N.T.S.

$$\frac{2}{D-1}$$


1. USED IN AREAS WHERE SHEET FLOW OCCURS.
2. DO NOT USE IN STREAMS, CHANNELS, OR ANYWHERE FLOW IS CONCENTRATED. DO NOT USE SILT FENCES TO DIVERT FLOW.
3. DO NOT USE BELOW SLOPES SUBJECT TO CREEP, SLUMPING, OR LANDSLIDES.
4. SILT FENCE SHOULD BE WOVEN POLYPROPYLENE WITH A MINIMUM WIDTH OF 36 INCHES AND A MINIMUM TENSILE STRENGTH OF 100 LB FORCE.
5. INSTALL ALONG A LEVEL CONTOUR SO WATER DOES NOT POND MORE THAN 1.5 FEET AT ANY POINT ALONG THE SILT FENCE.
6. THE MAXIMUM LENGTH OF SLOPE DRAINING TO ANY POINT ALONG THE SILT FENCE SHOULD BE 200 FEET OR LESS.
7. THE MAXIMUM SLOPE PERPENDICULAR TO THE FENCE LINE SHOULD BE 1:1.
8. PROVIDE SUFFICIENT ROOM FOR RUNOFF TO POND BEHIND THE FENCE AND TO ALLOW SEDIMENT REMOVAL EQUIPMENT TO PASS BETWEEN THE SILT FENCE AND TOES OF SLOPES OR OTHER OBSTRUCTIONS.
9. TURN THE ENDS OF THE FILTER FENCE UPHILL TO CREATE A "J" SHAPE, TO PREVENT STORMWATER FROM FLOWING AROUND THE FENCE.
10. LEAVE AN UNDISTURBED OR STABILIZED AREA IMMEDIATELY DOWN SLOPE FROM THE FENCE WHERE FEASIBLE.
11. SILT FENCES SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
12. REMOVE SEDIMENT WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.

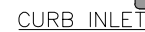
FILTER FENCE SILT BARRIER

SCALE: N.T.S.

3
D-



SECTION A-A



DI PROTECTION

SCALE: N.T.S.

4
D-1



TEMPORARY CHECK DAM NOTES:

1. CHECK DAM DIMENSIONS TO BE VERIFIED BY CIVIL ENGINEER.
2. ONLY CLEAN/WASHED GRAVEL MUST BE USED IN BAGS
3. SAND BAGS MAY BE REPLACED WITH GRAVEL BAGS BY APPROVAL OF CIVIL ENGINEER.

TEMPORARY CHECK DAM

SCALE: N.T.S.

5
D-

50% DESIGN PLANS
NOT FOR CONSTRUCTION

1. FIBER ROLL DRAIN INLET PROTECTION SHALL USE A MIN. 12" DIAMETER ROLL AND BE INSTALLED BEFORE CONSTRUCTION BEGINS.
2. GRAVEL BAGS SHALL BE FILLED WITH GRAVEL. SAND BAGS ARE NOT AN ACCEPTABLE SUBSTITUTE.
3. INSPECT AND REPAIR FIBER ROLLS EACH DAY AND AFTER EACH STORM EVENT. REMOVE SEDIMENT WHEN ONE THIRD OF THE FILTER DEPTH HAS BEEN FILLED. REMOVED SEDIMENT SHALL BE DISPOSED OF PROPERLY.
4. SEDIMENT AND GRAVEL DEPOSITED ON ROADWAYS SHALL BE IMMEDIATELY REMOVED.
5. IN HIGH TRAFFIC AREAS, MARK DRAIN INLET PROTECTION WITH VISIBLE BARRIERS SUCH AS SAFETY CONES.
6. REMOVE DRAIN INLET PROTECTION AFTER THE SURROUNDING AREA HAS BEEN STABILIZED.

DETAILS
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT

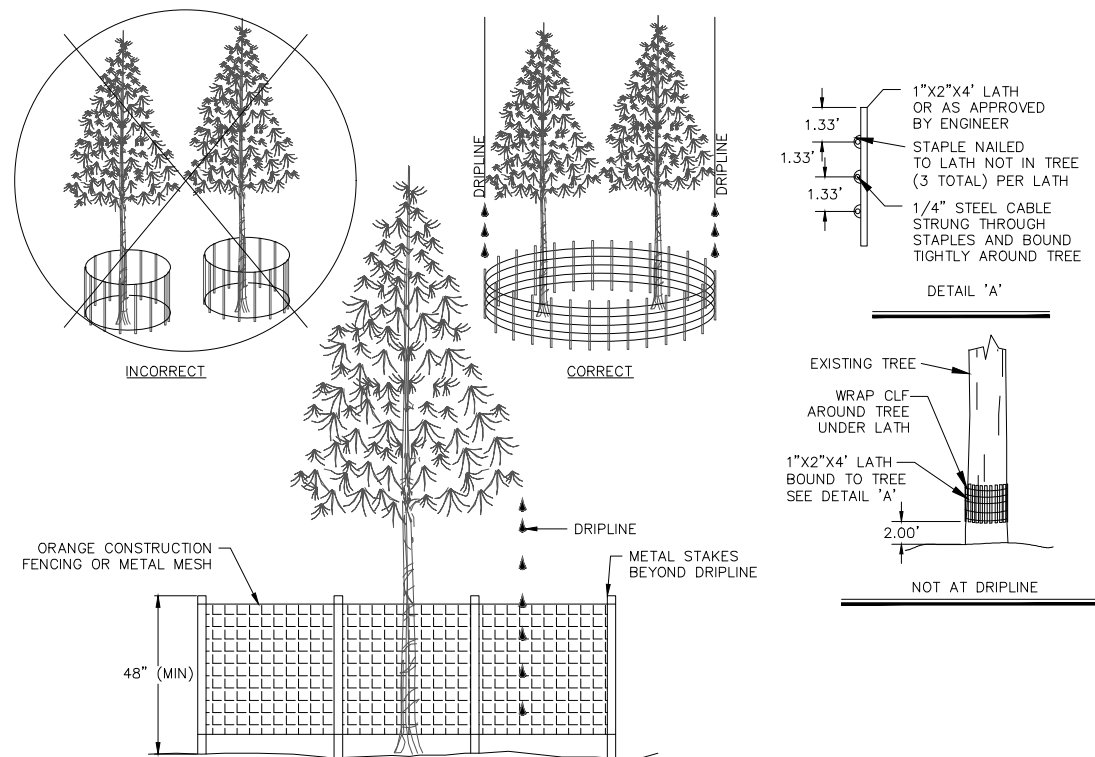


**Nevada Tahoe
Conservation District**

DESIGNED/DRAWN
MBG/CFW
CHECKED
MCK
DATE
11/16/2017
SCALE
AS SHOWN
PROJECT
PT

SHEET

D-1



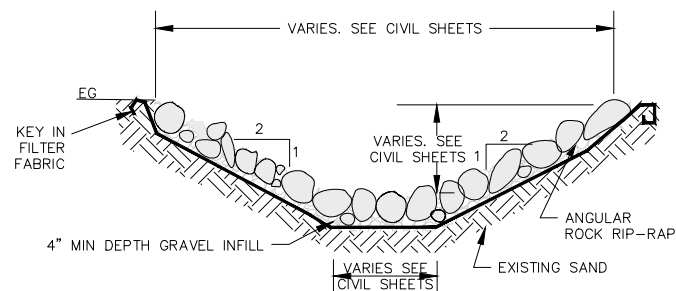
NOTES:

- DO NOT PERMIT PERSONNEL, CONSTRUCTION MATERIALS, OR EQUIPMENT, TEMPORARY OR OTHERWISE, WITHIN PROTECTIVE FENCING.
- VEGETATION PROTECTION IS REQUIRED FOR ALL PROJECTS AS A CONDITION OF PROJECT APPROVAL.
- METAL OR WIRE MESH FENCING MAY BE REQUIRED.
- CALCULATE THE PROTECTIVE PERIMETER FOR SHIELDING LARGER SPECIMEN TREES MEASURING OVER 30" DBH AS FOLLOWS: COMPUTE THE PROTECTIVE RADIUS BY ADDING ONE FOOT, AS MEASURED OUT FROM THE TREE BOLE, FOR EVERY INCH IN DBH. (E.G. A TREE WITH A 30" DBH WOULD RECEIVE A 30' PROTECTIVE PERIMETER)
- CLF AND TREE PROTECTION FENCE SHALL BE A MINIMUM OF 48" HIGH. FOR TREES WITH DRIPLINES THAT OVERHANG THE CONSTRUCTION AREAS, THE LOCATION OF THE TREE PROTECTION FENCE SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER AND/OR THE TRPA AT THE PREGRADE MEETING.
- THE DETAIL SHOWN IS FOR TREE PROTECTION. MATERIAL AND SPACING SHOWN ALSO APPLIES TO CLF.
- QUANTITY OF FILTER FENCE AND CONSTRUCTION LIMIT FENCE DOES NOT INCLUDE MINIMUM LIMITS FOR TREE PROTECTION. TREE PROTECTION FENCING TO BE PER DETAIL THIS SHEET AND/OR AS DETERMINED IN THE FIELD.

CONSTRUCTION LIMIT AND TREE PROTECTION FENCING

SCALE: N.T.S.

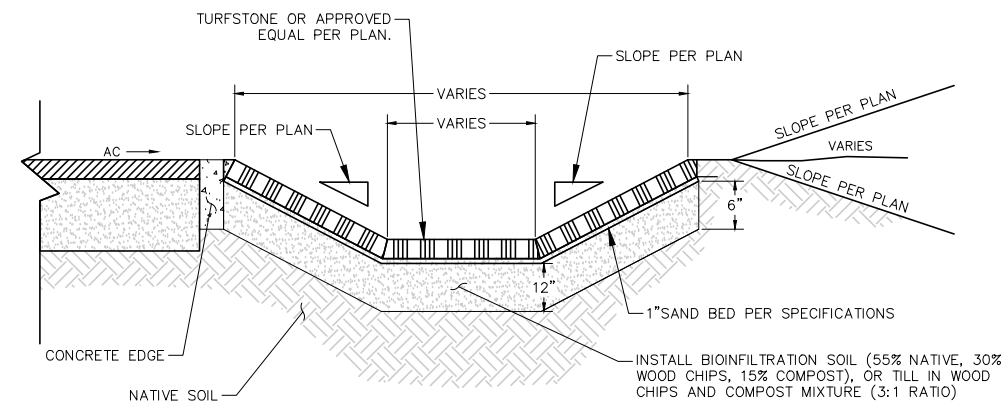
1
D-2



ROCK LINED CHANNEL

SCALE: N.T.S.

3
D-2

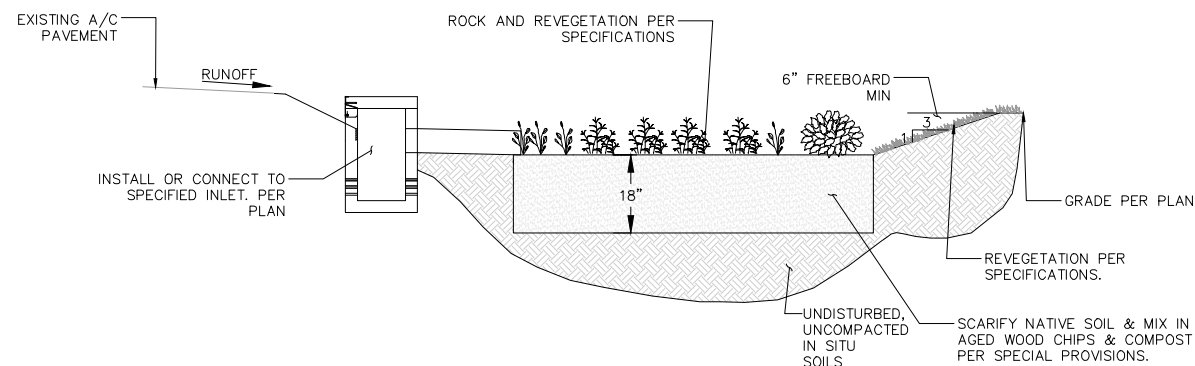


WITHOUT PERFORATED PIPE

BLOCK CHANNEL

SCALE: N.T.S.

2
D-2



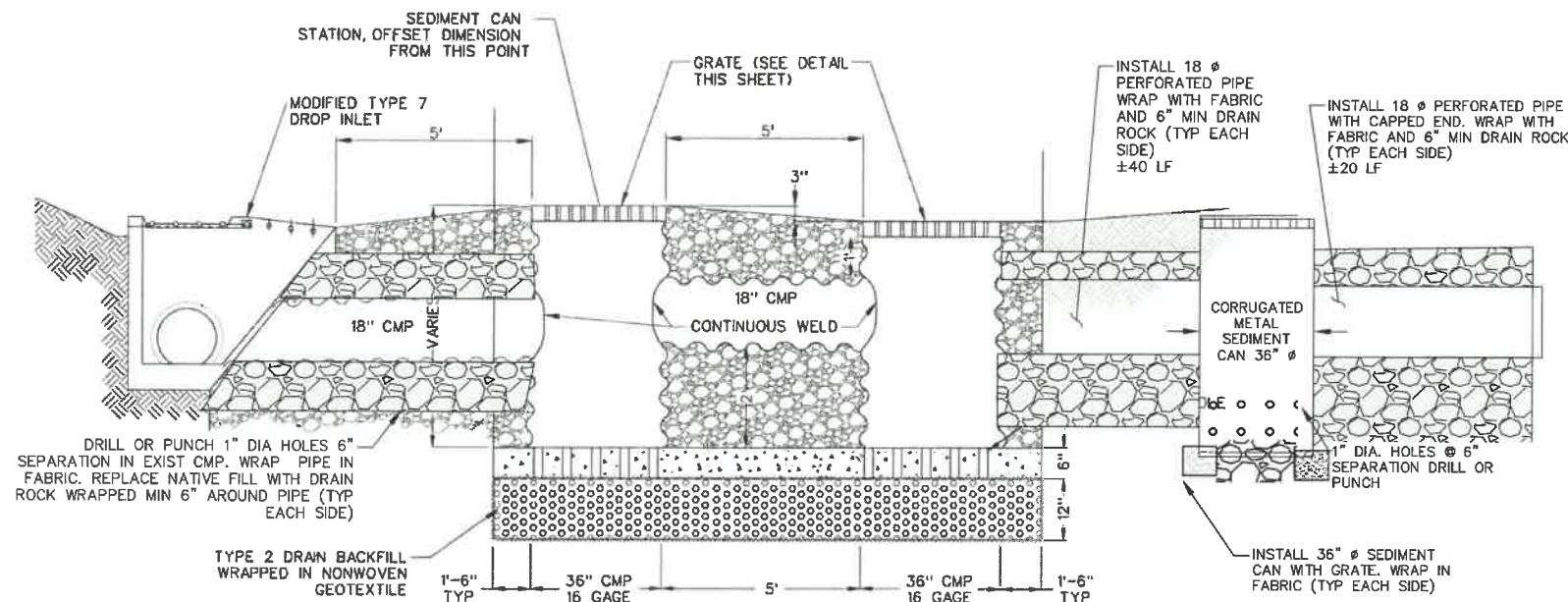
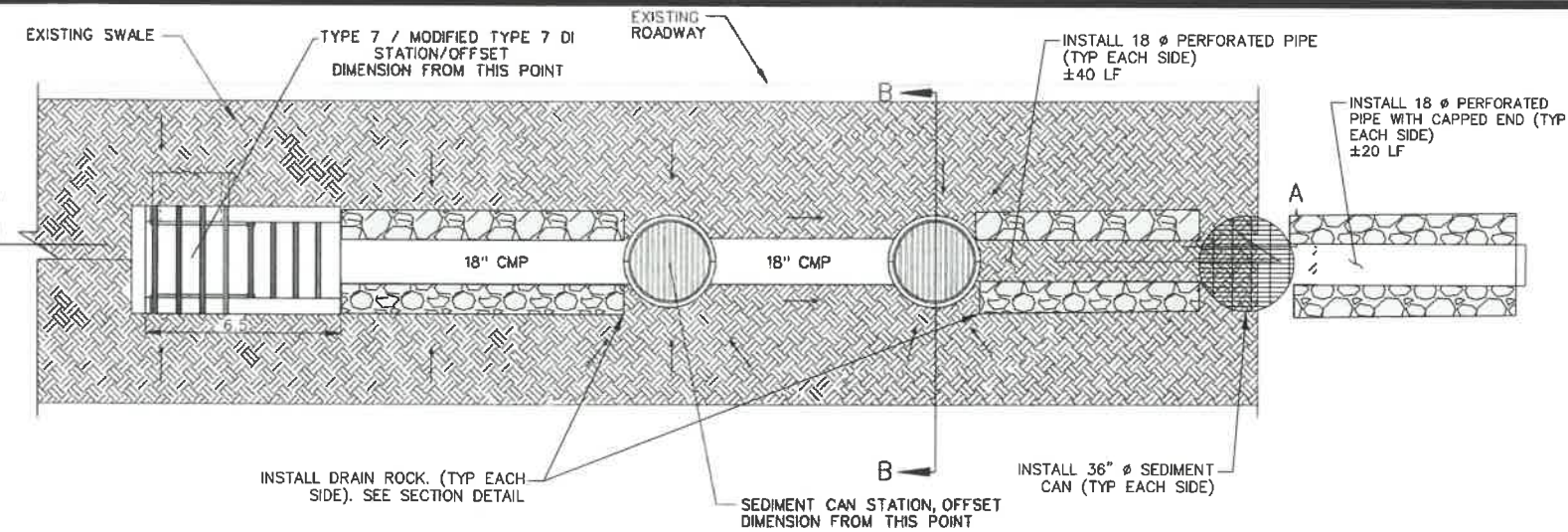
MICRO BASIN

SCALE: N.T.S.

4
D-2

50% DESIGN PLANS
NOT FOR CONSTRUCTION

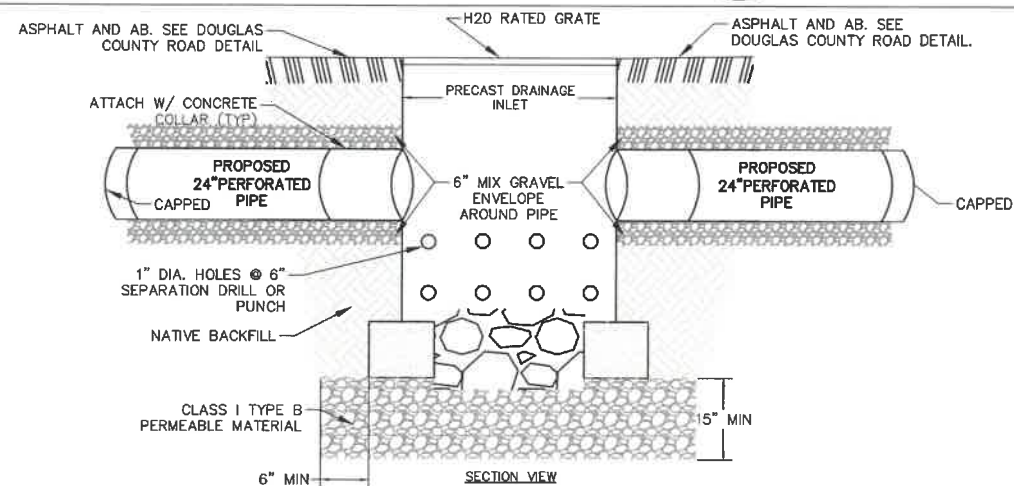
PLAN
DUAL SEDIMENT CAN



RETROFIT INFILTRATION SYSTEM

SCALE: N.T.S.

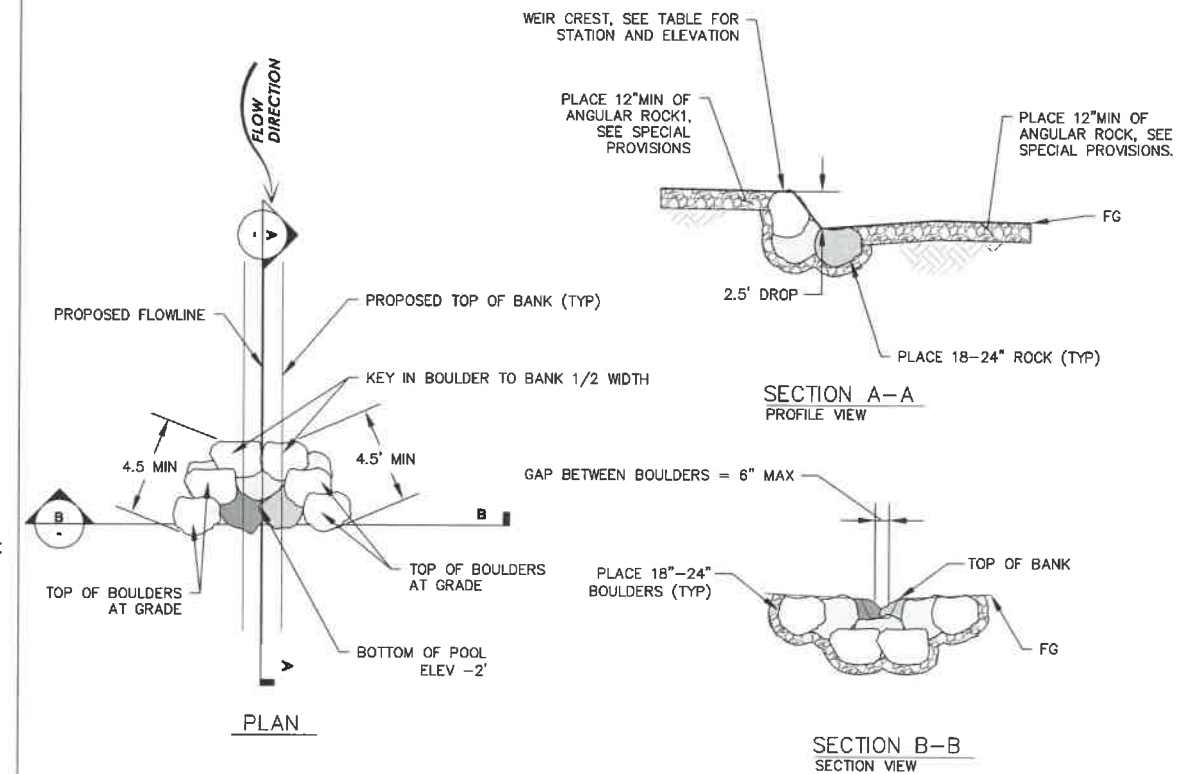
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D-3



PITTMAN TERRACE INFILTRATION FEATURE

SCALE: N.T.S.

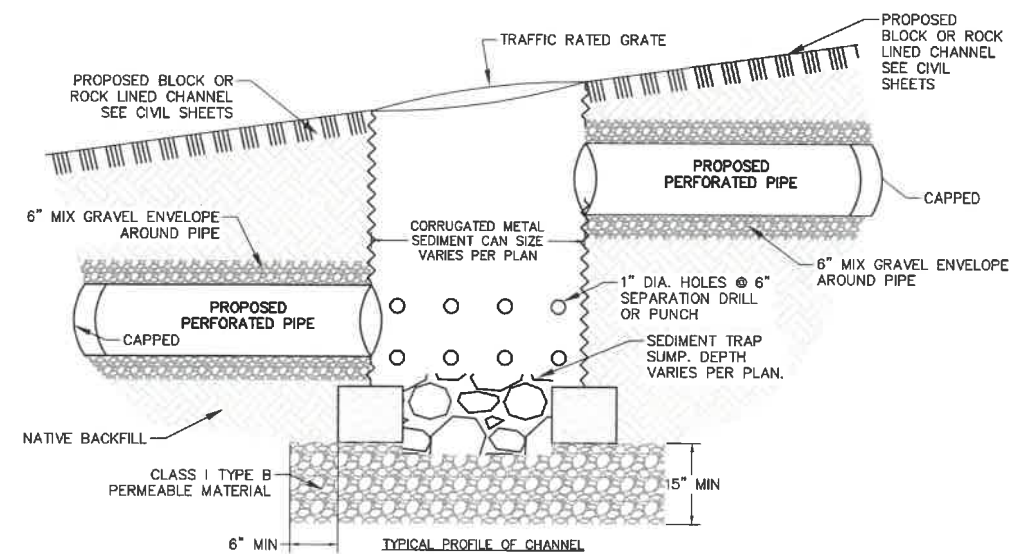
3
D-3



ROCK STEP

SCALE: N.T.S.

2
D-3



CHANNEL INFILTRATION FEATURE

SCALE: N.T.S.

4
D-3

DESIGNED/DRAWN
MBG/CFW
CHECKED
MCK
DATE
11/16/2017
SCALE
AS SHOWN
PROJECT
PT

SHEET

D-3
11 OF 11