NEVADA TAHOE CONSERVATION DISTRICT

PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

IN THE COUNTY OF DOUGLAS

EIP #01.01.01.17

PLAN

SCALE: 1" = 150'

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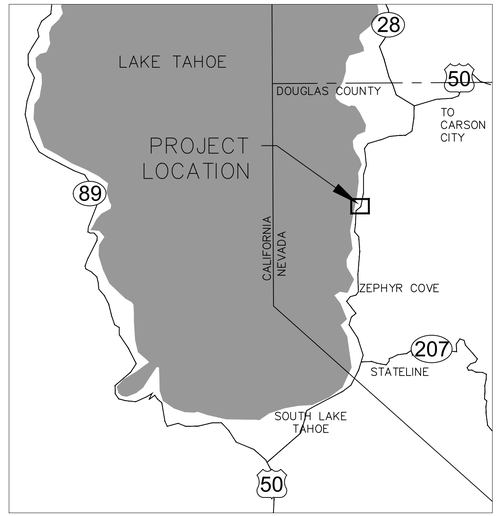

VICINITY MAP

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

APPROVAL:

ERIK NILSSEN, P.E.
DOUGLAS COUNTY ENGINEER

DATE

Nevada Tahoe Conservation District

PROFESSIONAL ENGINEER · STATE OF NEVADA · MEGHAN C. KELLY · Exp: 6/30/2019 · CIVIL · No. 20851

TITLE
PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

DESIGNED/DRAWN
MBG/CFW
CHECKED
MCK
DATE
05/2018
SCALE
AS SHOWN
PROJECT
PT
SHEET
i
1 OF 13

GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF NEVADA TAHOE CONSERVATION DISTRICT (NTCD), DOUGLAS COUNTY, & THE NEVADA DEPARTMENT OF TRANSPORTATION (NDOT). IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND ALL WORK AND MATERIALS SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("ORANGE BOOK" OR "STANDARD SPECIFICATIONS"). ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THESE AMENDED SPECIFICATIONS AND DETAILS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. 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. ONE WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK, CONSTRUCTION OR INSTALLATIONS ASSOCIATED WITH THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE DOUGLAS COUNTY INSPECTOR AT (775)782–6237OF INTENT TO BEGIN AND REQUEST/SCHEDULE PRECONSTRUCTION MEETING AT THE PROJECT SITE WITH DOUGLAS COUNTY CONSTRUCTION INSPECTOR. FAILURE TO PROVIDE PROPER INSPECTION NOTIFICATION AS PRESCRIBED ABOVE SHALL RESULT IN THIS PERMIT BECOMING INVALID AND WORK BEING STOPPED.

3. CONTRACTOR'S SHALL COMPLY WITH THE REQUIREMENTS TO OBTAIN THE NECESSARY SITE IMPROVEMENT PERMITS AND SHALL COMPLY WITH THE SITE IMPROVEMENT PERMIT CONDITIONS AS FOUND ON THE BACK OF THE PERMIT FORM.

4. THE APPROVED PLAN, PERMIT AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES

5. THE CONTRACTOR IS ADVISED THAT DAMAGE TO PUBLIC SERVICES OR SYSTEMS AS A RESULT OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AND INSPECTED BY THE ENGINEERING INSPECTOR. UNLESS OTHERWISE APPROVED BY THE COUNTY, ALL REPAIRS SHALL BE DONE WITHIN 24 HOURS. THE CONTRACTOR IS ADVISED THAT ANY COSTS RELATED TO REPAIR OR REPLACEMENT OF DAMAGED PUBLIC SERVICES AND SYSTEMS AS A RESULT OF CONTRACTOR'S ACTIVITIES SHALL BE BORNE BY THE CONTRACTOR.

6. 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.

7. 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.

8. 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.

9. 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.

10. 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.

11. 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 UTILITIES ARE PRIVATE AND MAY NOT BE IDENTIFIED BY USA.

12. 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.

13. 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.

14. 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.

15. 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.

16. 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.

17. ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING OPERATIONS. ALL OPERATIONS SHALL COMPLY WITH PERMIT REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK TO WATER AREAS AS NECESSARY TO CONTROL DUST. THE CONTRACTOR WILL PROVIDE SWEEPING PER SPECIFICATION.

18. ALL TREES AND NATURAL VEGETATION TO REMAIN ON THE SITE SHALL BE PROTECTED PER TRPA.

19. 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.

20. 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.

21. 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.

22. 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.

23. NO WASHING OF VEHICLES OR HEAVY EQUIPMENT, INCLUDING CEMENT MIXERS, SHALL BE PERMITTED ANYWHERE ON THE SUBJECT PROPERTY UNLESS AUTHORIZED BY TRPA IN WRITING.

24. NO VEHICLE OR HEAVY EQUIPMENT SHALL BE ALLOWED IN A STREAM ENVIRONMENT ZONE OR WET AREA EXCEPT AS AUTHORIZED BY TRPA.

25. ALL CONSTRUCTION SHALL BE WINTERIZED BY OCTOBER 15 TO REDUCE THE WATER QUALITY IMPACTS ASSOCIATED WITH WINTER WEATHER.

26. 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.

27. 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.

28. 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, IF APPLICABLE

25. TRAFFIC CONTROL AND LANE CLOSURES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PER NDOT STANDARD SPECIFICATIONS OR DOUGLAS COUNTY STANDARDS WHERE APPLICABLE. THE CONTRACTOR SHALL OBTAIN AND MAINTAIN ALL APPLICABLE PERMITS. ANY ROAD CLOSURES REQUIRE THE CONTRACTOR TO OBTAIN A ROAD CLOSURE PERMIT FROM DOUGLAS COUNTY.

26. ACCESS TO HOMES AND PUMP STATIONS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION

27. NDOT ENCROACHMENT PERMIT REQUIREMENTS FOR TRAFFIC CONTROL CAN BE EXPECTED TO INCLUDE RESTRICTIONS FOR SINGLE LANE CLOSURE DURING DAYLIGHT HOURS TO BE BEFORE JUNE 15TH OR AFTER LABOR DAY. RESTRICTIONS SHALL ALSO BE EXPECTED INTO INCLUDE NO 24–HOUR LANE CLOSURE. PROTECTIONS WILL NEED TO BE PUT UP BEFORE AND TAKEN DOWN AFTER EACH WORK DAY. STAGING AREA 2 PROTECTIONS SHALL BE INCLUDED IN THE TRAFFIC CONTROL PLAN. SEE SECTION 150, TRAFFIC CONTROL. THE FINAL ENCROACHMENT PERMIT WILL DICTATE RESTRICTIONS FOR WORKING IN THE NDOT RIGHT OF WAY.

28. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MINIMUM COMPRESSIVE STRENGTH @ 28 DAYS, (CURB AND GUTTER TRANSITION ONLY, ALL UNEXPOSED CONCRETE MAY BE 3000 PSI), MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS SHALL CONFORM TO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SECTION 202.

29. REINFORCING STEEL SHALL BE GRADE 40 AND 1.5 INCHES MINIMUM CLEAR COVER.

30. ALL STORM DRAIN PIPE AND STRUCTURES SHALL BE CLEANED OF SEDIMENT AND DEBRIS PRIOR TO ISSUANCE OF A NOTICE OF COMPLETION OR CERTIFICATE OF OCCUPANCY.

31. FRAMES AND GRATES SHALL BE MATCHED TO ACHIEVE A CLOSE TOLERANCE FIT, WITH MINIMAL GAPS, AS APPROVED BY THE STORM DRAIN UTILITY.

32. GRATES SHALL BE PLACED OUTSIDE OF THE PEDESTRIAN TRAVELED WAY. GRATE OPENINGS SHALL NOT EXCEED 0.5 INCHES IN WIDTH OR 4 INCHES IN LENGTH. GRATES SHALL BE TRAFFIC RATED AND ADA COMPLIANT.

33. SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL, OR AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE COUNTY.

34. FILL AREAS SHALL BE CLEARED OF ALL VEGETATION AND DEBRIS, SCARIFIED, AND BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE PLACING OF FILL.

35. THE PUBLIC WORKS IDENTIFYING NUMBER (PWP NUMBER) FOR THE PROJECT IS ASSIGNED AS DO–2018–175 BY THE STATE OF NEVADA OFFICE OF THE LABOR COMMISSIONER.

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
CMAP	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
L	LEFT
LEN.	LENGTH
LF	LINEAR FEET
LID	LOW IMPACT DEVELOPMENT
LP	LOW POINT
LS	LUMP SUM
MH	MANHOLE
MAX.	MAXIMUM
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
RCP	REINFORCED CONCRETE PIPE
REVEG	REVEGATATION
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
6695 EXISTING MAJOR CONTOUR LABEL	6694 PROPOSED MAJOR CONTOUR LABEL
5+00 EXISTING ALIGNMENT	5+00 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	CLF CONSTRUCTION LIMIT FENCE
SD STORM DRAIN LINE	FF FILTER FENCE
CATCH BASIN	SEDIMENT ROLL
STORM DRAIN MANHOLE	EROSION CONTROL BLANKET
W WATER LINE	STAGING AREA
WATER METER/ VALVE	PROPOSED PIPE
SS SANITARY SEWER LINE	PROPOSED CONCRETE
SANITARY SEWER MANHOLE	PROPOSED VEGETATION/WILLOW
OH E OVERHEAD ELECTRIC LINE	ROCK LINED CHANNEL (PLAN VIEW)
POWER POLE	SEDIMENT REMOVAL
UNDER GROUND TELEPHONE LINES	ROCK (SECTION VIEW)
OH T OVERHEAD TELEPHONE LINES	ROCK DISSIPATER
UG FO UNDERGROUND FIBER OPTIC LINES	PROJECT BOUNDARY
GAS UNDERGROUND GAS LINES	PROPOSED FENCE (TYPE SPECIFIED ON PLAN)
DRAINAGE	
TREE	
FIRE HYDRANT	
CURB	
OR CONCRETE	
CONTROL POINT	
BUILDING	
PRIVATE DRIVEWAY	
SIGN	
ROCK LINED CHANNEL	
EXISTING ROCK WALL	

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

125–382–13 ASSESSOR PARCEL NUMBER

JOHN A. SMITH OWNER (PRIVATE LOT)

UTILITIES

CABLE TELEVISION	CHARTER COMMUNICATIONS, (775) 588–1077
NATURAL GAS	N/A
ELECTRIC	NV ENERGY, (775) 834–4444
STORM DRAIN	DOUGLAS COUNTY PUBLIC WORKS (775) 782–9989
SEWER	DOUGLAS COUNTY SEWER IMPROVEMENT DISTRICT (775) 588–3558
WATER	PRIVATE SYSTEMS
PHONE	FRONTIER (775) 782–0966
USA DIGS	(800) 642–2444 OR 811

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).

Nevada Tahoe Conservation District

PROFESSIONAL ENGINEER · STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

GENERAL NOTES
PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT
SHEET	ii

0 60 120
SCALE IN FEET

N

SHEET C-2/C-3

DOUGLAS BLVD

PITTMAN TERRACE

FRIEDHOFF DR

US HIGHWAY 50

NDOT – 541081
NORTHING: 14691688.26'
EASTING: 2238200.72'
ELEV.: 6350.55'

NDOT – 541082
NORTHING: 14691229.24'
EASTING: 2237874.77'
ELEV.: 6331.82'

SHEET C-4

SHEET C-1

Nevada Tahoe Conservation District

PROFESSIONAL ENGINEER STATE OF NEVADA
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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 AND ROCK. ONLY CONIFERS GREATER THAN 1" DBH ARE SHOWN ON PLANS
3. LAND CAPABILITY IS MAPPED AND UNVERIFIED.
4. STAGING AREA PROTECTION SHALL BE PER MUTCD CODE, NDOT STANDARD SPECIFICATION, AND NDOT ENCROACHMENT PERMIT. MAILBOXES MUST BE ACCESSIBLE AT ALL TIMES. CONTRACTOR SHALL SUBMIT PROPOSED STAGING PROTECTION TO NDOT WITH TRAFFIC CONTROL PLAN.

0 60 120
SCALE IN FEET

N

PROPOSED TREE REMOVAL

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

GRANADA INC THE
141827210002

U S FOREST SERVICE
141827601001

US HIGHWAY 50

INSTALL FIBER ROLL OR FILTER FENCE ON DOWNHILL SIDE OF STAGING (2/D-1) (3/D-1)

PROTECT 24" PINE IN PLACE. OPTIONAL TO REMOVE IF NECESSARY TO CONSTRUCT CHANNEL.

POE, JAY & DANA
141827210035

LAND CAPABILITY LINE (TYP)

LAND CAPABILITY LABEL (TYP)

PROJECT BOUNDARY

POE, JAY & DANA
141827210036

EXIST DIRT ROAD. PROTECT DRIVEWAY ACCESS

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

POE, JAY & DANA
141827210037

EXIST ROCK STEPS

DOUGLAS COUNTY
141827210004

ZEPHYR COVE HOLDINGS
141827210005

NVIOGILLC
141827210006

GRANT ROBBIE TTEE
141827210007

POHL, JOSEPH & CLANCY, MEGAN
141827210008

BERES, NORMAN & COLLEEN TTEE
141827210009

MORRISON, MAUREEN TTEE
141827210010

MURRAY, TODD JAMES & CHARLOTTE
141827210011

BELOKAMENSKAY, ALEXANDER TTEE
141827210012

WETTERLING, JAMES E JR & DAWN S
141827210013

BRUIN LLC
141827210014

MAYNE MICHELLE TRUSTEE
141827210034

BENTLY FAMILY LLC
141827210015

BENTLY FAMILY LLC
141827210016

TAHOE DOUGLAS SEWER DIST
141827210017

U S FOREST SERVICE
141827201001

U S FOREST SERVICE
141827201002

DOUGLAS BLVD

INSTALL GRAVEL CONSTRUCTION ENTRANCE (5/D-4)

MAYNOR, GALE E & JUDITH A
141827210028

NEVADA, STATE OF
141827210027

FRY, PATRICK & RENATE TTEE
141827210026

VANCLEAVE, LAWRENCE D & MARGARE
141827210025

CORMAN, LOUISE E ET AL*
141827210024

FRASER, ALAN
141827210023

PITTMAN TERRACE

FRIEDHOFF DR

INSTALL DI PROTECTION (TYP) 3 TOTAL (4/D-1)

INSTALL TEMPORARY CHECK DAMS AS NECESSARY DURING CONSTRUCTION TO PREVENT SEDIMENT LADEN RUN OFF ±550 LF (5/D-1)

INSTALL TEMPORARY PROJECT SIGN AS DIRECTED BY ENGINEER (1/D-1)

KEENEY, VANCE DOUGLAS
141827601007

SAUER, CHRIS H III TTEE
141827210033

FRASER, L ALAN
141827210022

STAGING AREA 2
±1,800 SF
SEE NOTES

FRASER, ALAN
141827210021

GARDNER, RICHARD & NANCY N
141827210019

INSTALL FIBER ROLL OR FILTER FENCE ON DOWNHILL SIDE OF STAGING (2/D-1) (3/D-1)

NEVADA, STATE OF
141827202001

NEVADA, STATE OF
141827202002

U S FOREST SERVICE
141827601008

U S FOREST SERVICE
141827601009

1A 1B 2

Nevada Tahoe Conservation District

PROFESSIONAL ENGINEER STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

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

DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT
SHEET	G-1
	4 OF 13

BID ALTERNATE: PIP EXIST ELECTRICAL BEHIND CURB

BID ALTERNATE: DEMO EXISTING SYSTEM. CONSTRUCT PITTMAN TERRACE INFILTRATION FEATURE. CENTER OFF OF EXISTING DI.

(3 / D-3)

BID ALTERNATE: 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

PITTMAN TERRACE

FRIEDHOFF DR

HWY 50

NDOT – 541082
NORTHING: 14691229.24'
EASTING: 2237874.77'
ELEV.: 6331.82'

EXIST 24" CMP

APPROX 10' FROM EP

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.
2. FULL OR PARTIAL ROAD CLOSURE NECESSARY FOR CONSTRUCTION COMPLETION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL OBTAIN ALL APPROPRIATE PERMITS FROM DOUGLAS COUNTY AND/OR NDOT. NDOT PERMIT CAN BE EXPECTED TO RESTRICT DAILY LANE CLOSURE ON HIGHWAY 50 TO BEFORE JUNE 15TH OR AFTER LABOR DAY. 24 HOUR CLOSURE IS NOT EXPECTED TO BE PERMITTED.

0 30 60
SCALE IN FEET

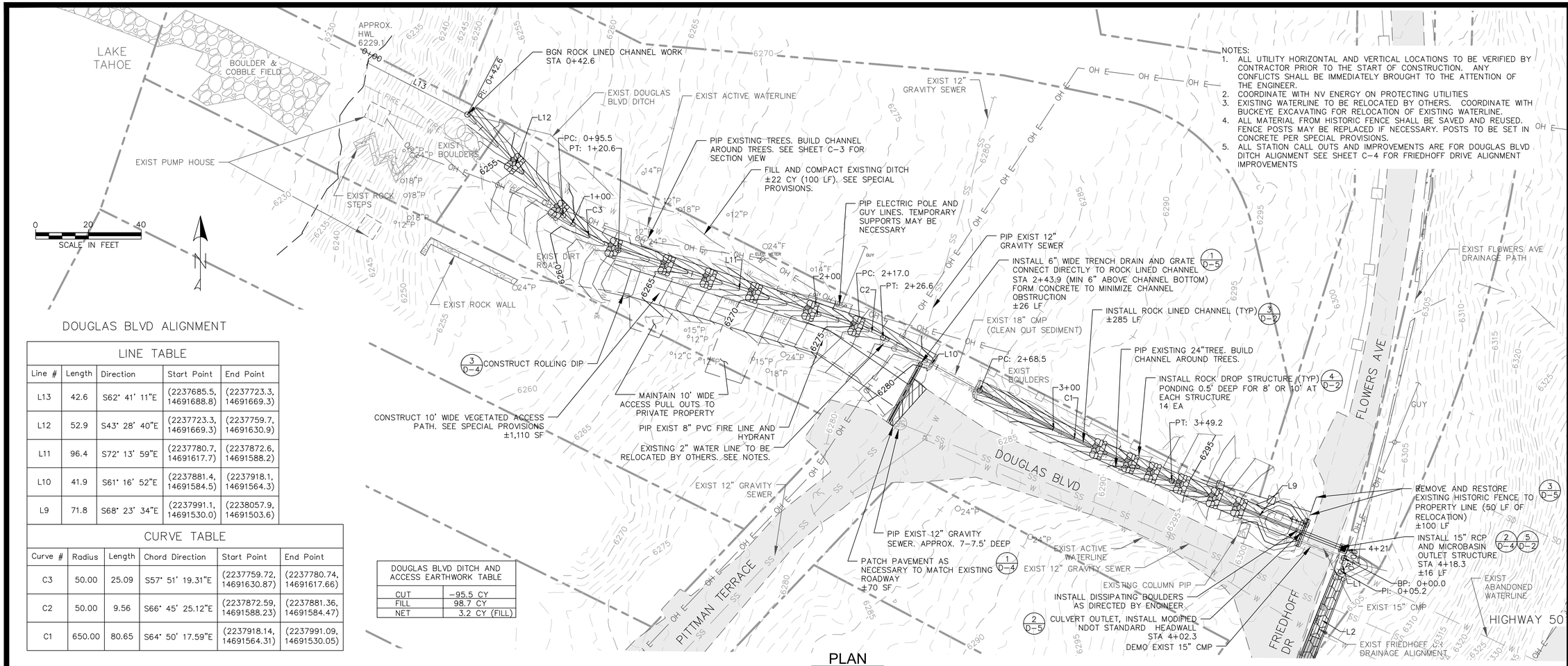
N

Nevada Tahoe Conservation District

PROFESSIONAL ENGINEER STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

HIGHWAY 50 IMPROVEMENTS
PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT
SHEET	C-1
	5 OF 13



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.
2. COORDINATE WITH NV ENERGY ON PROTECTING UTILITIES
3. EXISTING WATERLINE TO BE RELOCATED BY OTHERS. COORDINATE WITH BUCKEYE EXCAVATING FOR RELOCATION OF EXISTING WATERLINE.
4. ALL MATERIAL FROM HISTORIC FENCE SHALL BE SAVED AND REUSED. FENCE POSTS MAY BE REPLACED IF NECESSARY. POSTS TO BE SET IN CONCRETE PER SPECIAL PROVISIONS.
5. ALL STATION CALL OUTS AND IMPROVEMENTS ARE FOR DOUGLAS BLVD DITCH ALIGNMENT SEE SHEET C-4 FOR FRIEDHOFF DRIVE ALIGNMENT IMPROVEMENTS

DOUGLAS BLVD ALIGNMENT

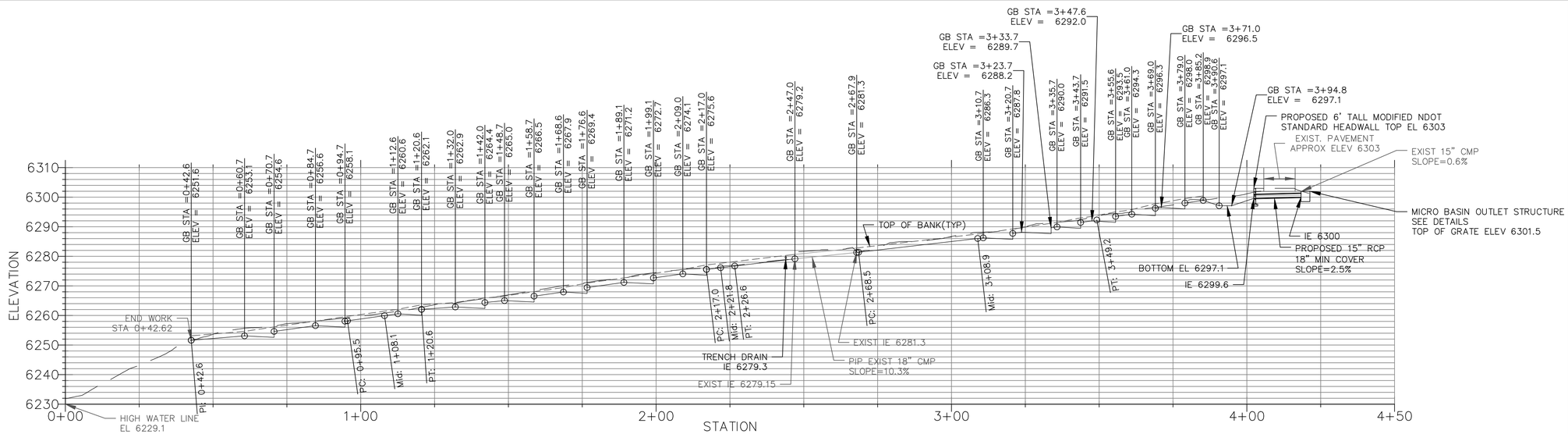
LINE TABLE				
Line #	Length	Direction	Start Point	End Point
L13	42.6	S62° 41' 11"E	(2237685.5, 14691688.8)	(2237723.3, 14691669.3)
L12	52.9	S43° 28' 40"E	(2237723.3, 14691669.3)	(2237759.7, 14691630.9)
L11	96.4	S72° 13' 59"E	(2237780.7, 14691617.7)	(2237872.6, 14691588.2)
L10	41.9	S61° 16' 52"E	(2237881.4, 14691584.5)	(2237918.1, 14691564.3)
L9	71.8	S68° 23' 34"E	(2237991.1, 14691530.0)	(2238057.9, 14691503.6)

CURVE TABLE					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C3	50.00	25.09	S57° 51' 19.31"E	(2237759.72, 14691630.87)	(2237780.74, 14691617.66)
C2	50.00	9.56	S66° 45' 25.12"E	(2237872.59, 14691588.23)	(2237881.36, 14691584.47)
C1	650.00	80.65	S64° 50' 17.59"E	(2237918.14, 14691564.31)	(2237991.09, 14691530.05)

DOUGLAS BLVD DITCH AND ACCESS EARTHWORK TABLE	
CUT	−95.5 CY
FILL	98.7 CY
NET	3.2 CY (FILL)

PLAN

SCALE: 1" = 20'



DOUGLAS BLVD PROFILE

SCALE: HORIZ:1" = 20'; H:V = 1:1

Nevada Tahoe Conservation District

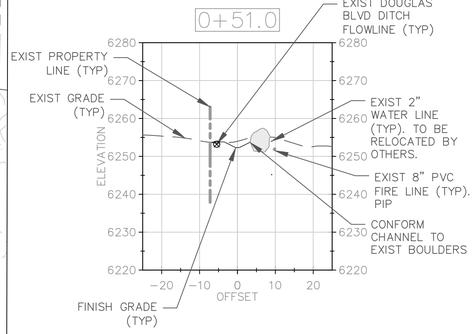
PROFESSIONAL ENGINEER STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

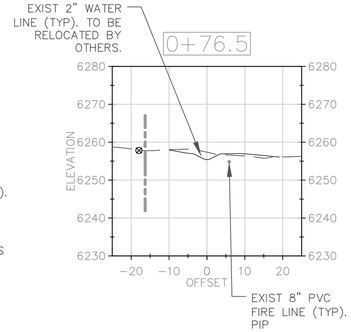
DOUGLAS BLVD DRAINAGE PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

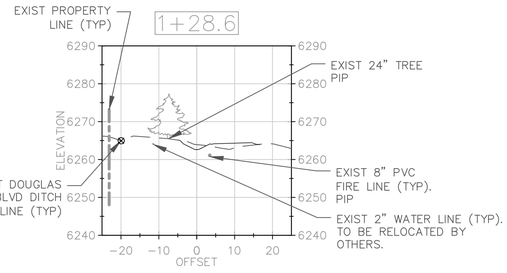
DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT
SHEET	C-2
	6 OF 13

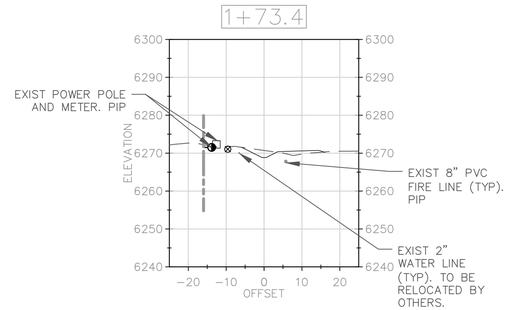
PLAN

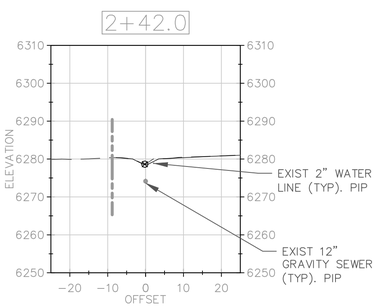
SCALE: 1" = 20'

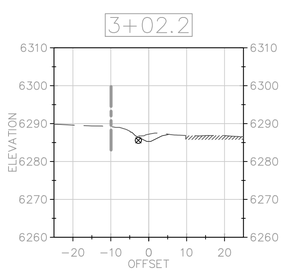


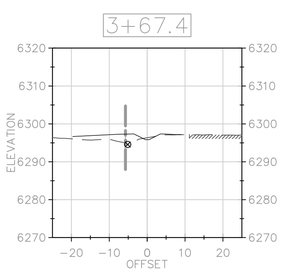


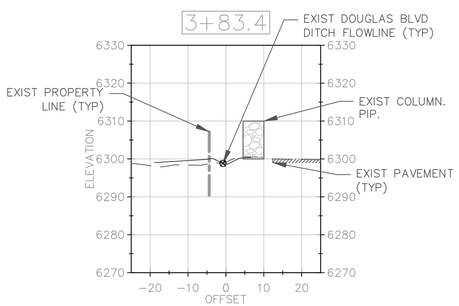


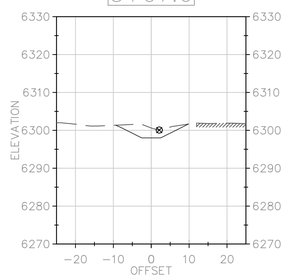












NOTES:
1. ALL UTILITY HORIZONTAL AND VERTICAL LOCATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. COORDINATE WITH NV ENERGY ON PROTECTING UTILITIES
3. EXISTING WATERLINE TO BE RELOCATED BY OTHERS. COORDINATE WITH BUCKEYE CONSTRUCTION FOR RELOCATION OF EXISTING WATERLINE.
4. LOCATION OF ABANDONED WATERLINE ON UPSTREAM PORTION OF DOUGLAS BLVD DITCH (STA 3+00 AND HIGHER) IS UNKNOWN AND IS THEREFORE NOT SHOWN IN CROSS SECTIONS. CONTRACTOR TO TAKE CARE DURING EXCAVATION AND INFORM ENGINEER OF ANY CONFLICT IMMEDIATELY/
5. ALL STATION CALL OUTS ARE FOR DOUGLAS BLVD DITCH ALIGNMENT

DOUGLAS BLVD SECTIONS

SCALE: HORIZ:1" = 20'; H:V = 1:1

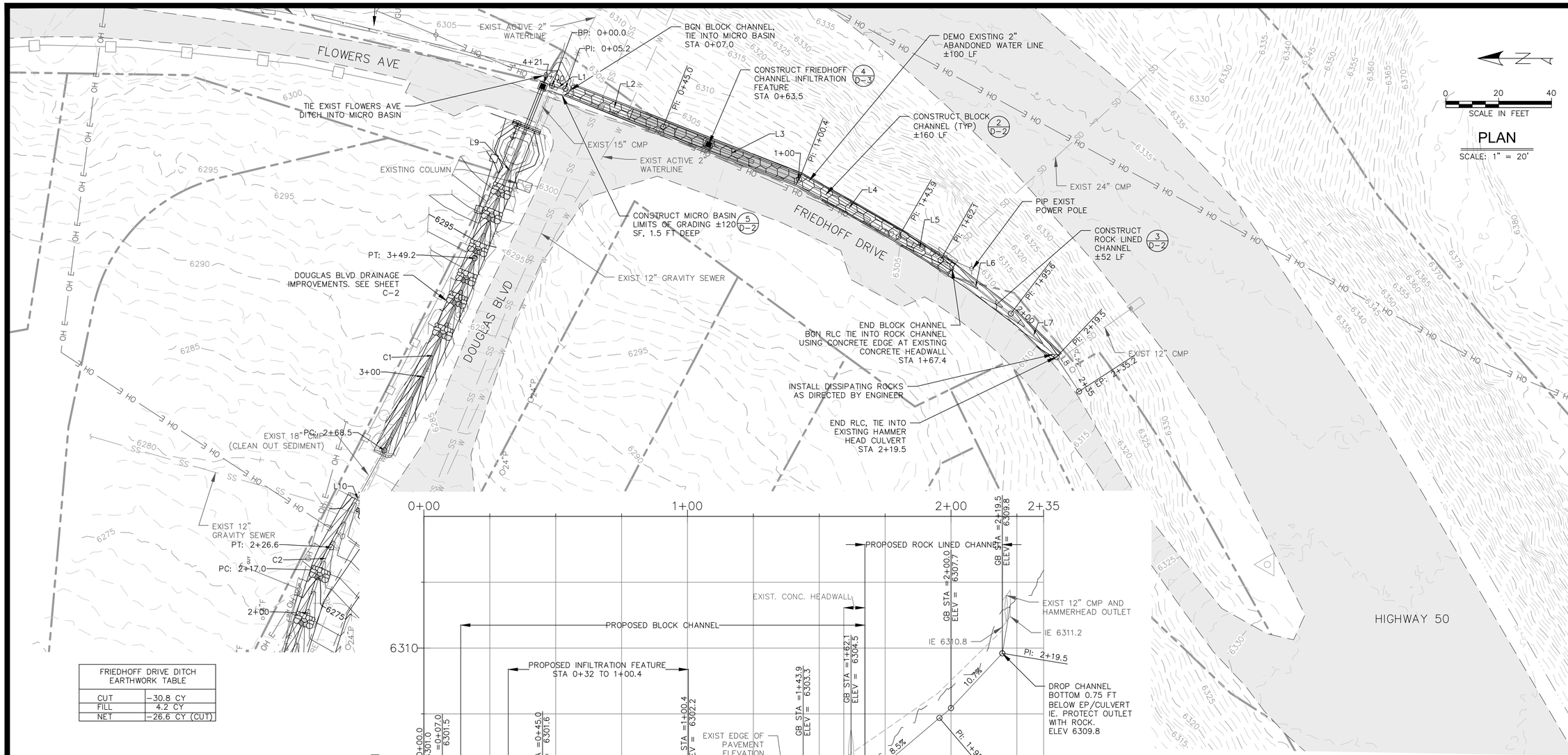
Nevada Tahoe Conservation District

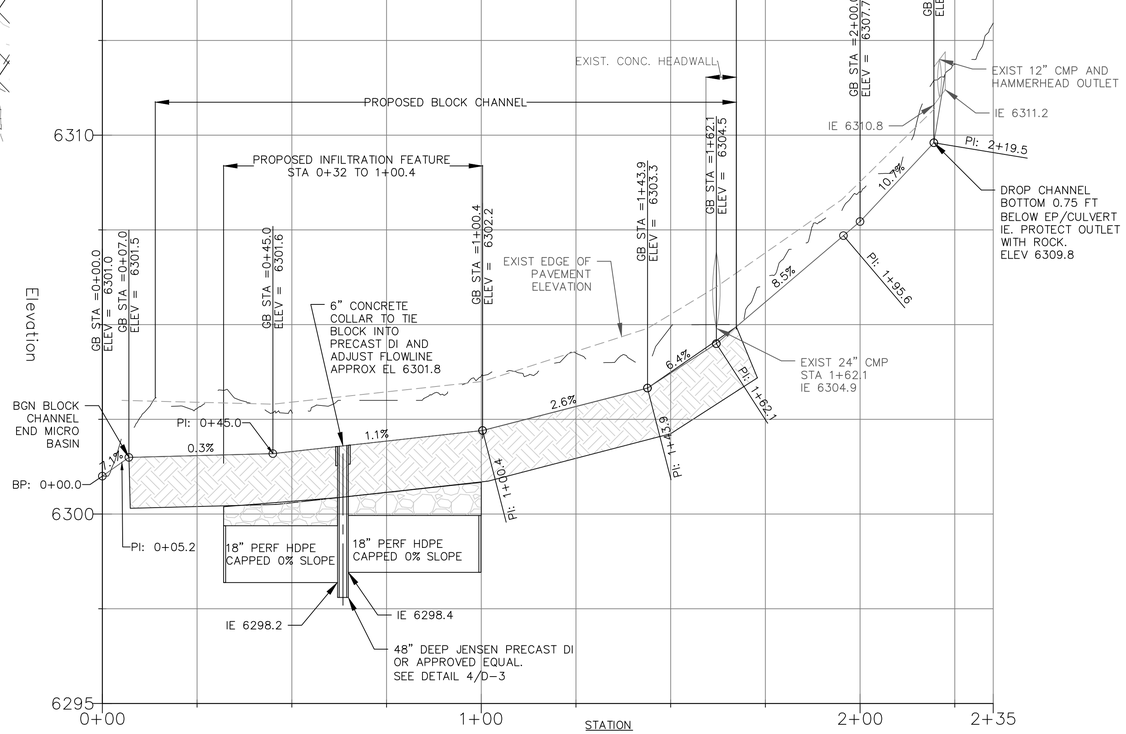
PROFESSIONAL ENGINEER STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

DOUGLAS BLVD SECTIONS
PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT

SHEET
C-3
7 OF 13





FRIEDHOFF AVE PROFILE

SCALE: HORIZ:1" = 20'; H:V = 1:10

FRIEDHOFF DRIVE DITCH EARTHWORK TABLE	
CUT	−30.8 CY
FILL	4.2 CY
NET	−26.6 CY (CUT)

FRIEDHOFF DRIVE ALIGNMENT

LINE TABLE

Line #	Length	Direction	Start Point	End Point
L1	5.2	S11° 17' 51"W	(2238056.5, 14691500.6)	(2238055.5, 14691495.6)
L2	39.9	S21° 26' 49"W	(2238055.5, 14691495.6)	(2238040.9, 14691458.5)
L3	55.3	S21° 14' 19"W	(2238040.9, 14691458.5)	(2238020.9, 14691406.9)
L4	43.5	S29° 46' 57"W	(2238020.9, 14691406.9)	(2237999.3, 14691369.1)
L5	18.2	S29° 16' 11"W	(2237999.3, 14691369.1)	(2237990.4, 14691353.2)
L6	33.5	S37° 16' 09"W	(2237990.4, 14691353.2)	(2237970.1, 14691326.6)
L7	23.9	S43° 30' 07"W	(2237970.1, 14691326.6)	(2237953.6, 14691309.2)
L8	15.7	S56° 56' 02"W	(2237953.6, 14691309.2)	(2237940.5, 14691300.7)

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.
2. ROCK LINED AND BLOCK CHANNEL ALONG FRIEDHOFF DRIVE SHALL FOLLOW THE EXISTING EDGE OF PAVEMENT AND BE INSTALLED BELOW THE EDGE OF PAVEMENT AND WITH THE DIMENSIONS PER DETAIL SHEETS. PROFILE ELEVATIONS ARE GIVEN FOR GUIDENCE. ACTUAL INSTALLATION WILL DEPEND ON BEST FIT AND BE INITIALLY STAKED OUT BY NTCD.
3. ALL STATION CALL OUTS AND IMPROVEMENTS ARE FOR FRIEDHOFF DRIVE DITCH ALIGNMENT. SEE SHEET C-2 FOR DOUGLAS BLVD ALIGNMENT IMPROVEMENTS.
4. NET CUT TO BE USED IN "COMPACT AND FILL EXISTING DITCH" ADJACENT TO DOUGLAS BLVD. SEE SHEET C-2

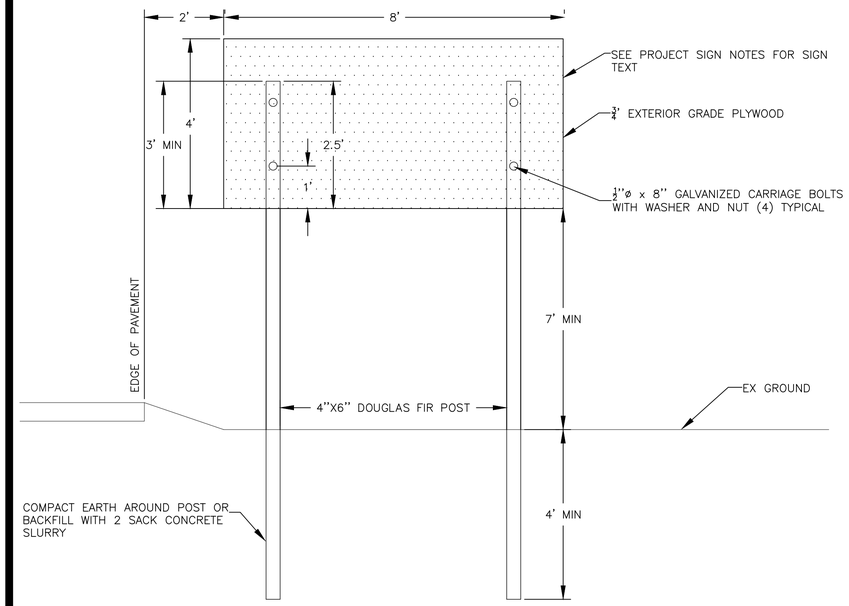
Nevada Tahoe Conservation District

PROFESSIONAL ENGINEER STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

FRIEDHOFF DRIVE DRAINAGE & WATER QUALITY
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT

DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT

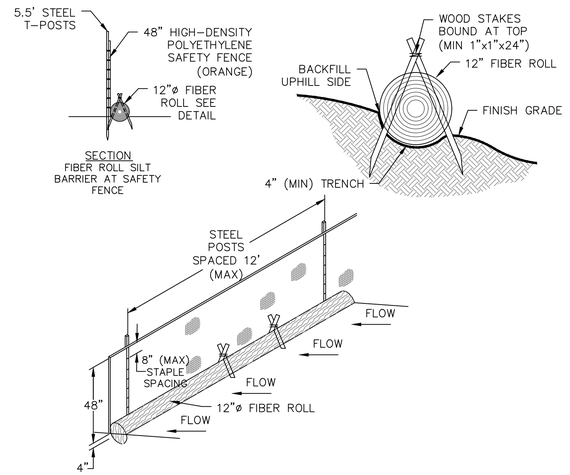
SHEET
C-4
8 OF 13



TEMPORARY PROJECT SIGN

SCALE: N.T.S.

1 D-1



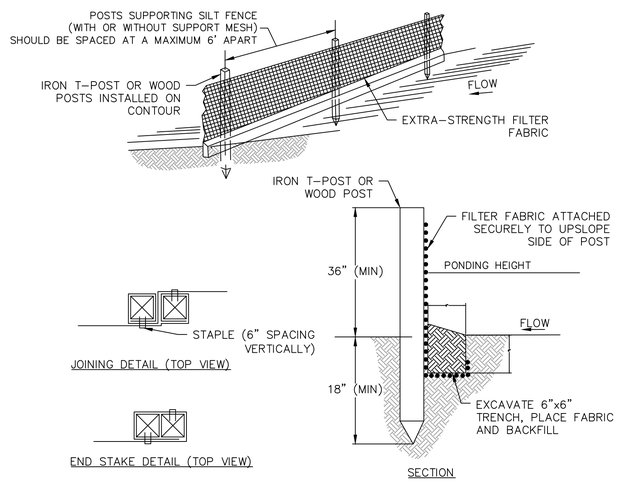
FIBER ROLL NOTES:

1. FIBER ROLLS SHALL NOT BE MADE FROM STRAW, WITH THE EXCEPTION OF WEED-FREE RICE STRAW. FIBER ROLLS SHALL HAVE A MINIMUM WEIGHT OF 2.5 LBS PER LINEAR FOOT. FIBER ROLLS SHALL BE REMOVED AT THE END OF CONSTRUCTION AS DIRECTED BY THE ENGINEER..
2. ORANGE SAFETY FENCE IS INTENDED TO PROTECT FIBER ROLLS FROM COMPRESSION BY VEHICLES, CONSTRUCTION EQUIPMENT, EXT. 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.

2 D-1



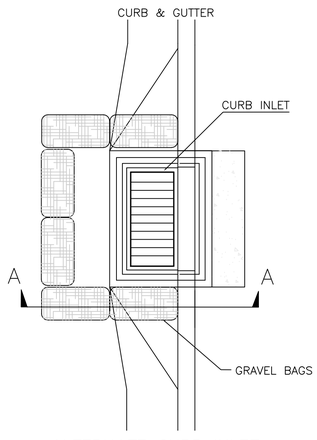
SILT FENCE NOTES:

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 THAT 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.

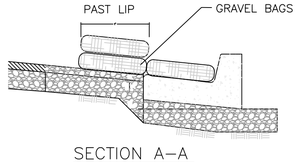
FILTER FENCE SILT BARRIER

SCALE: N.T.S.

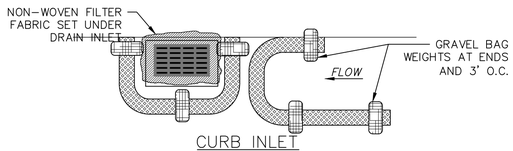
3 D-1



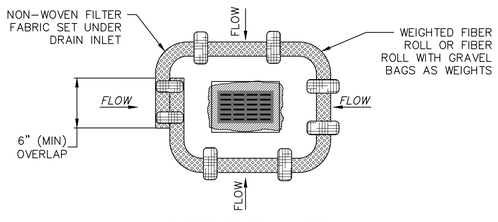
ALTERNATE CURB INLET



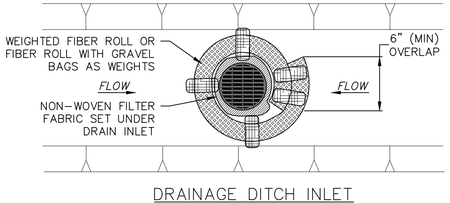
SECTION A-A



CURB INLET



SHEET FLOW INLET



DRAINAGE DITCH INLET

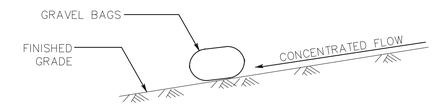
DI PROTECTION NOTES:

1. FIBER ROLLS SHALL NOT BE MADE FROM STRAW, WITH THE EXCEPTION OF WEED-FREE RICE STRAW. FIBER ROLLS SHALL HAVE A MINIMUM WEIGHT OF 2.5 LBS PER LINEAR FOOT. FIBER ROLLS SHALL BE REMOVED AT THE END OF CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. GRAVEL BAGS SHALL BE FILLED WITH ¾" DIA, CLEANED, WASHED 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.

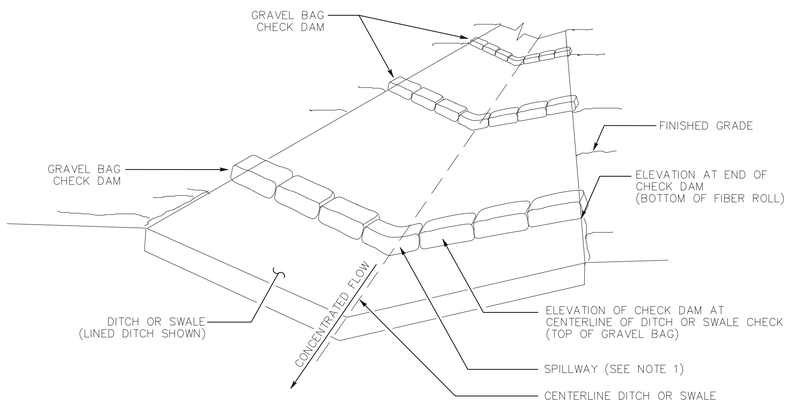
DI PROTECTION

SCALE: N.T.S.

4 D-1



SECTION



PERSPECTIVE

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-1

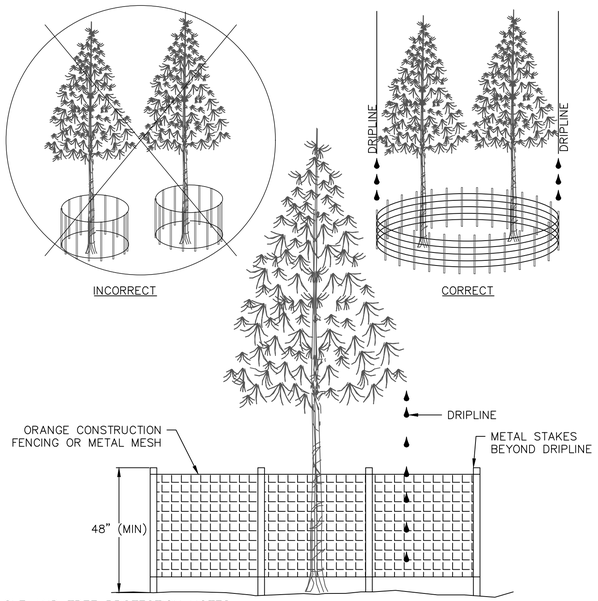
Nevada Tahoe Conservation District

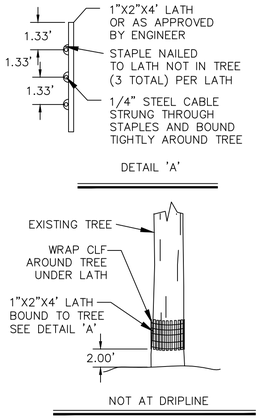
PROFESSIONAL ENGINEER STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

DETAILS
PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT

SHEET D-1
9 OF 13

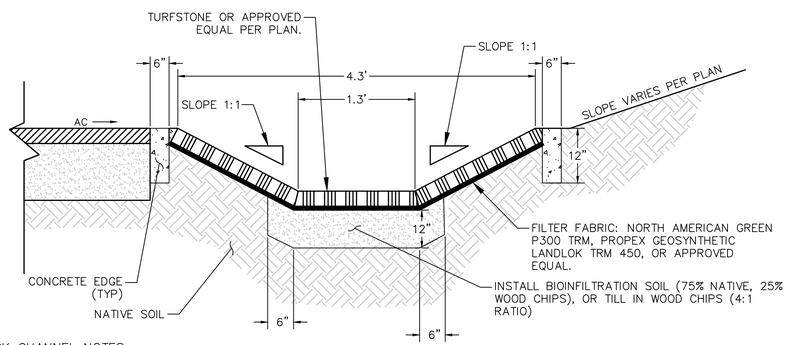




CLF AND TREE PROTECTION NOTES:
1. DO NOT PERMIT PERSONNEL, CONSTRUCTION MATERIALS, OR EQUIPMENT, TEMPORARY OR OTHERWISE, WITHIN PROTECTIVE FENCING.
2. VEGETATION PROTECTION IS REQUIRED FOR ALL PROJECTS AS A CONDITION OF PROJECT APPROVAL.
3. METAL OR WIRE MESH FENCING MAY BE REQUIRED.
4. CALCULATE THE 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)
5. 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.
6. THE DETAIL SHOWN IS FOR TREE PROTECTION. MATERIAL AND SPACING SHOWN ALSO APPLIES TO CLF.
7. 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



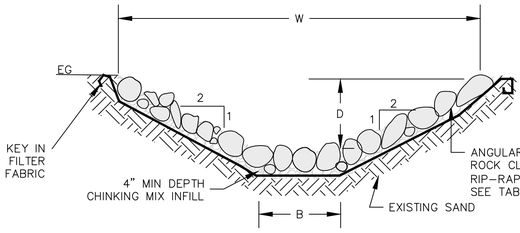
BLOCK CHANNEL NOTES:
1. BLOCKS TO BE FILLED 70% WITH TOPSOIL AND SEEDED PER SPECIAL PROVISIONS. REVEGETATION BY OTHERS
2. SAWCUT PAVEMENT ON FRIEDHOFF DRIVE TO CREATE SMOOTH TRANSITION BETWEEN ROAD AND CHANNEL. SEE STREET CUT REPAIR DETAIL 1/D-4.
3. CONCRETE EDGE TO BE INSTALLED ON UPSTREAM AND DOWNSTREAM EDGE OF BLOCK CHANNEL AS WELL AS ALONG THE SIDES OF THE CHANNEL AS SHOWN..

BLOCK CHANNEL
SCALE: N.T.S.

2 D-2

ROCK LINED CHANNEL TABLE							
ALIGNMENT NAME	BGN STATION [FT]	END STATION [FT]	W [FT]	B [FT]	D[FT]	RIP RAP	RIPRAP DEPTH [FT]
FRIEDHOFF DR.	1+67.4	2+19.5	3.5	0.5	0.75	CLASS 150	1.0
DOUGLAS BLVD.	2+67.9	3+85.2	7.0	1	1.5	CLASS 300	2.0
DOUGLAS BLVD.	3+85.2	3+90.6	TRANSITION			CLASS 300	2.0
DOUGLAS BLVD.	3+90.6	4+20.3	17.0	5.0	2.0	CLASS 300	2.0

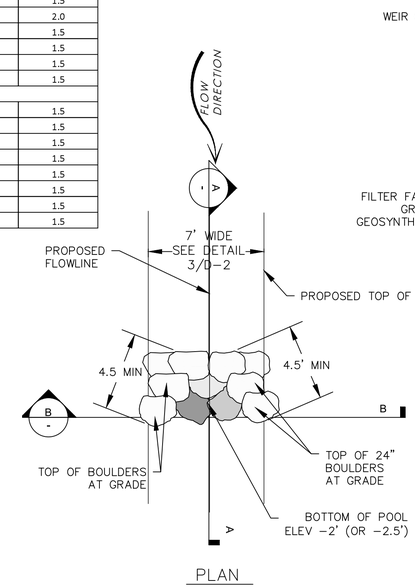
RLC NOTES:
1. REVEGETATION IN ROCK LINED CHANNEL BY OTHERS.
2. SAWCUT PAVEMENT ON FRIEDHOFF DRIVE TO CREATE SMOOTH TRANSITION BETWEEN ROAD AND CHANNEL. SEE STREET CUT REPAIR DETAIL 1/D-4.
3. FILTER FABRIC SHALL BE NORTH AMERICAN GREEN P300 TRM, PROPEX GEOSYNTHETIC LANDLOK TRM 450, OR APPROVED EQUAL.



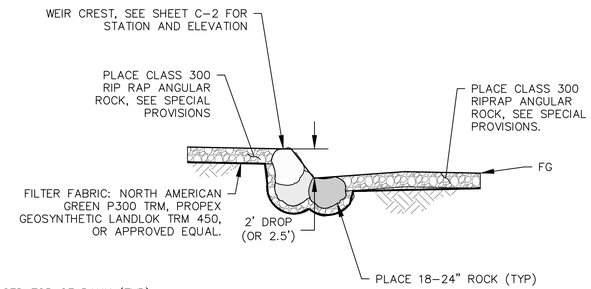
ROCK LINED CHANNEL
SCALE: N.T.S.

3 D-2

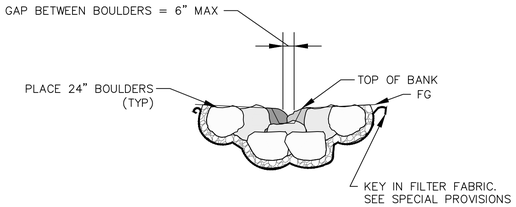
ROCK DROP STRUCTURE TABLE				
CREST STATION [FT]	CREST ELEVATION [FT]	POOL LENGTH [FT]	INITIAL POOL DROP [FT]	OVERALL DROP [FT]
3+79.0	6298.0	8.0	2.0	1.5
3+69.0	6296.3	8.0	2.5	2.0
3+55.6	6293.5	8.0	2.0	1.5
3+43.4	6291.5	8.0	2.0	1.5
3+33.7	6289.7	10.0	2.0	1.5
3+20.7	6287.8	10.0	2.0	1.5
STA 2+67.9 THRU 2+47.0: CULVERT				
2+17.0	6275.6	8.0	2.0	1.5
1+99.1	6272.7	10.0	2.0	1.5
1+76.6	6269.4	8.0	2.0	1.5
1+58.7	6266.5	10.0	2.0	1.5
1+42.0	6264.4	10.0	2.0	1.5
1+20.6	6262.1	8.0	2.0	1.5
0+94.7	6258.1	10.0	2.0	1.5
0+70.7	6254.6	10.0	2.0	1.5



PLAN



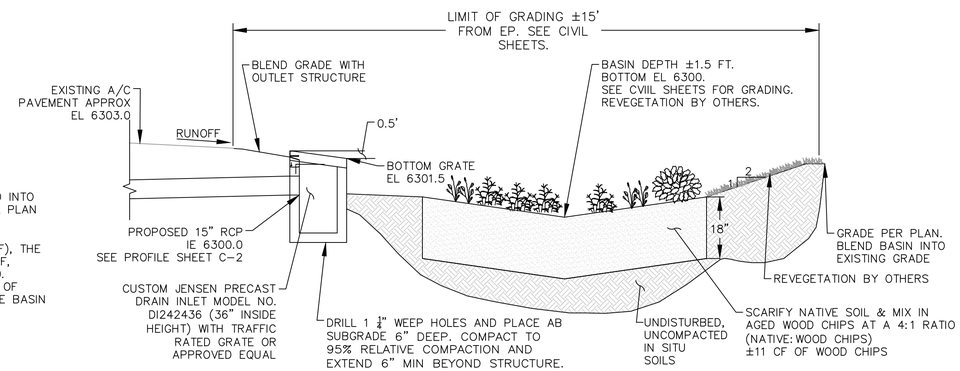
SECTION A-A
PROFILE VIEW



SECTION B-B
SECTION VIEW

ROCK DROP STRUCTURE
4 D-2

MICROBASIN NOTES:
1. MICROBASIN SHALL BE BLENDED INTO EXISTING LANDSCAPE. SEE CIVIL PLAN SHEETS FOR GRADING LIMITS.
2. LIMITS OF GRADING ARE APPROXIMATELY 10'X12' (120 SF), THE BOTTOM OF THE BASIN IS 30 SF, SLOPING 2:1 DOWN TO EL 6300.
3. NTCD SHALL PROVIDE ONE SET OF CONSTRUCTION STAKES FOR THE BASIN TO DEFINE GRADING.



MICRO BASIN
SCALE: N.T.S.

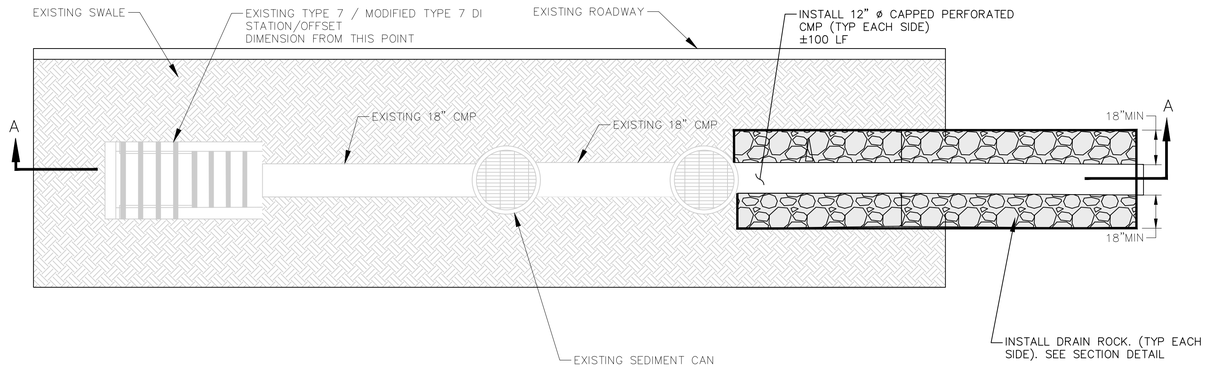
5 D-2

Nevada Tahoe Conservation District

PROFESSIONAL ENGINEER STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

DETAILS
PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT
SHEET	D-2



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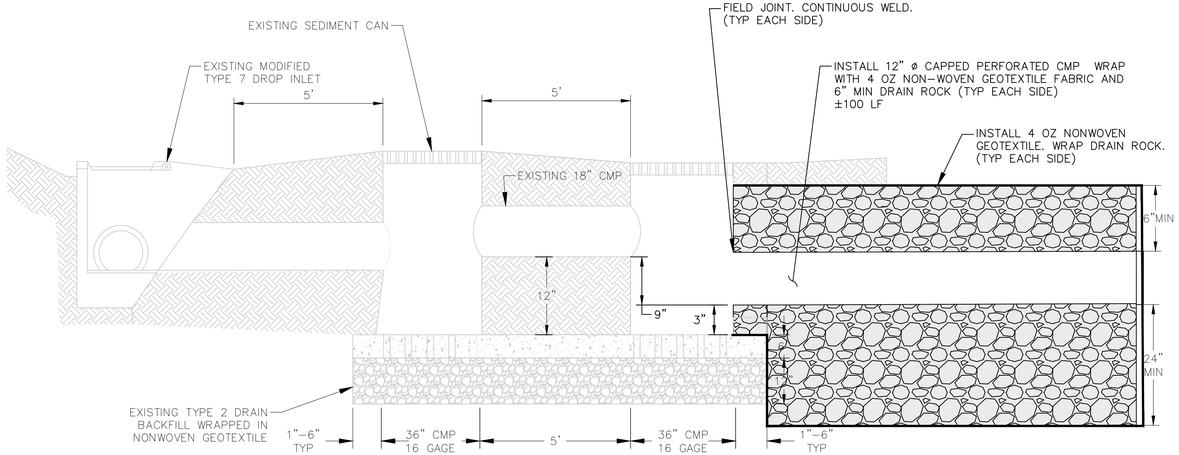


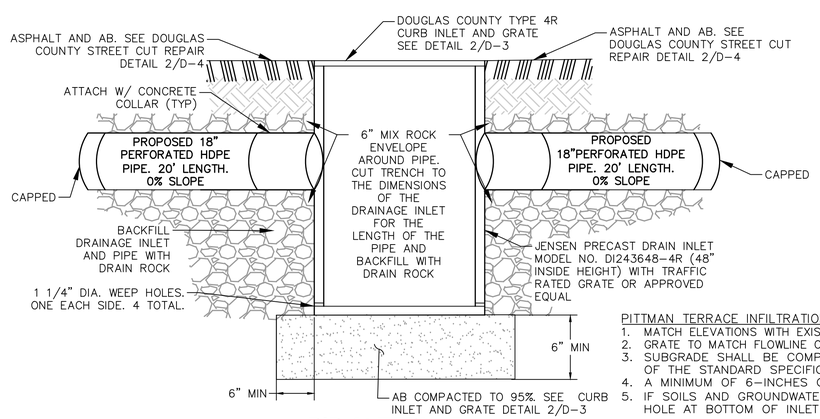
SECTION A-A

NDOT RETROFIT NOTES:

1. THIS DETAIL ONLY REPRESENTS HALF OF THE FEATURE. DOUBLE SEDIMENT TRAPS EXIST ON BOTH SIDED OF THE EXISTING DI. THE 100 FOOT PIPE EXTENSION SHALL BE ON BOTH SIDES OF THE FEATURE.
2. EXISTING PIPE MAY BE REPLACED WITH PERFORATED PIPE INSTEAD OF PERFORATING IN PLACE

RETROFIT NDOT INFILTRATION SYSTEM 1 D-3

SCALE: N.T.S.

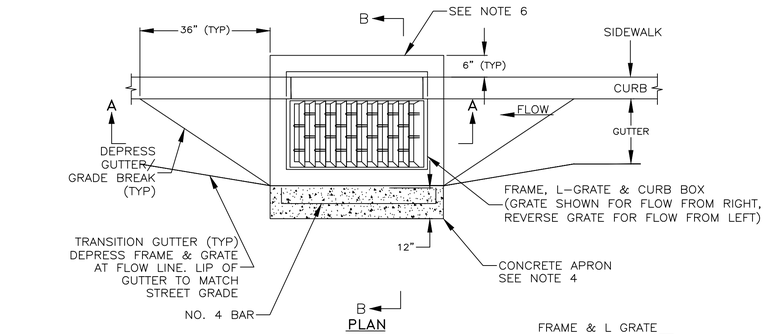


PITTMAN TERRACE INFILTRATION FEATURE NOTES:

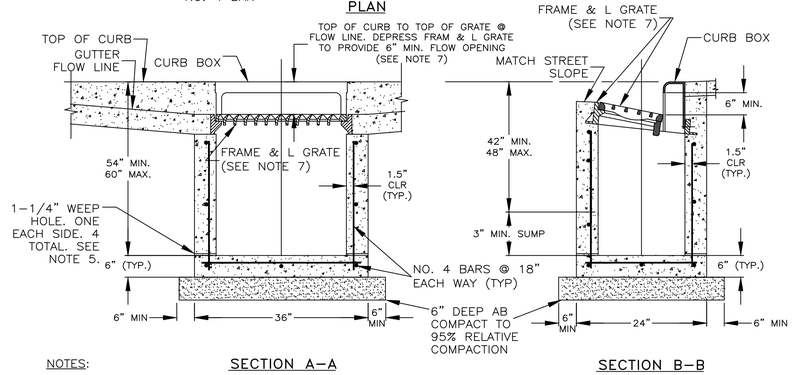
1. MATCH ELEVATIONS WITH EXISTING
2. GRATE TO MATCH FLOWLINE OF CURB
3. SUBGRADE SHALL BE COMPACTED IN CONFORMANCE WITH SECTION 302 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
4. A MINIMUM OF 6-INCHES OF GRADED BEDDING MATERIAL.
5. IF SOILS AND GROUNDWATER DEPTH WILL ALLOW, DRILL 1-1/4" WEEP HOLE AT BOTTOM OF INLET TO ALLOW WATER TO INFILTRATE INTO SOIL.

BID ALTERNATE: PITTMAN TERRACE INFILTRATION FEATURE 3 D-3

SCALE: N.T.S.



PLAN



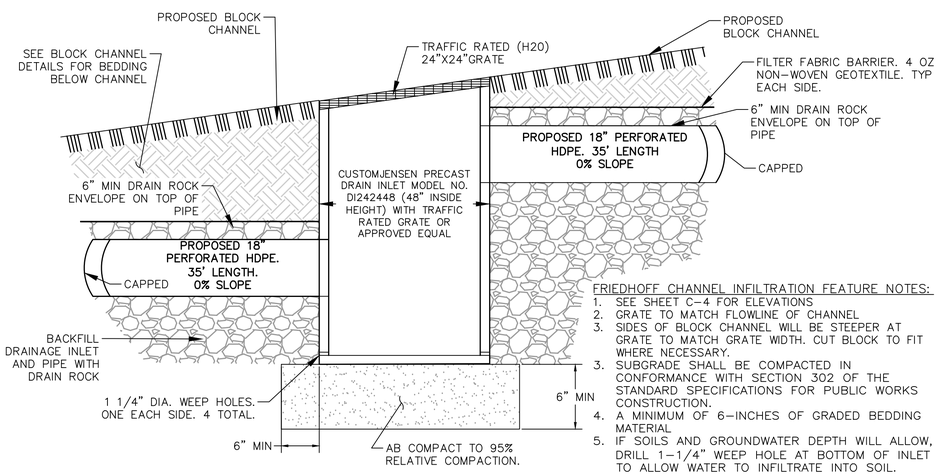
SECTION A-A SECTION B-B

NOTES:

1. SUBGRADE SHALL BE COMPACTED IN CONFORMANCE WITH SECTION 302 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. A MINIMUM OF 6-INCHES OF GRADED BEDDING MATERIAL AS DESCRIBED IN "TYPICAL STORM DRAIN TRENCH" DETAIL D01 SHALL BE CONSTRUCTED.
3. CONCRETE BOX SHALL BE DESIGNED FOR H-20 TRAFFIC LOAD.
4. IF FRAME AND GRATE EXTEND BEYOND LIP OF GUTTER, PROVIDE 8-INCH THICK CONCRETE APRON.
5. IF SOILS AND GROUNDWATER DEPTH WILL ALLOW, DRILL 1-1/4" WEEP HOLE INTO INLET TO ALLOW WATER TO INFILTRATE INTO SOIL.
6. IF NO SIDEWALK IS PRESENT, POUR 6-INCH CONCRETE CURB STRUCTURE BEHIND GRATE AND TIE BEAM INTO BOX.
7. TILT FRAME & GRATE AS REQUIRED TO ATTAIN 6-INCH MINIMUM FLOW OPENING AND INSTALL DURABLE SHIMS BETWEEN THE CURB BOX AND FRAME AS REQUIRED TO MATCH CURB BOX TO TOP OF CURB AND FACE OF CURB (SEE SECTION B-B).

BID ALTERNATE: DOUGLAS COUNTY TYPE 4R CURB INLET 2 D-3

SCALE: N.T.S.



FRIEDHOFF CHANNEL INFILTRATION FEATURE NOTES:

1. SEE SHEET C-4 FOR ELEVATIONS
2. GRATE TO MATCH FLOWLINE OF CHANNEL
3. SIDES OF BLOCK CHANNEL WILL BE STEEPER AT GRATE TO MATCH GRATE WIDTH. CUT BLOCK TO FIT WHERE NECESSARY.
3. SUBGRADE SHALL BE COMPACTED IN CONFORMANCE WITH SECTION 302 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
4. A MINIMUM OF 6-INCHES OF GRADED BEDDING MATERIAL
5. IF SOILS AND GROUNDWATER DEPTH WILL ALLOW, DRILL 1-1/4" WEEP HOLE AT BOTTOM OF INLET TO ALLOW WATER TO INFILTRATE INTO SOIL.

FRIEDHOFF CHANNEL INFILTRATION FEATURE 4 D-3

SCALE: N.T.S.

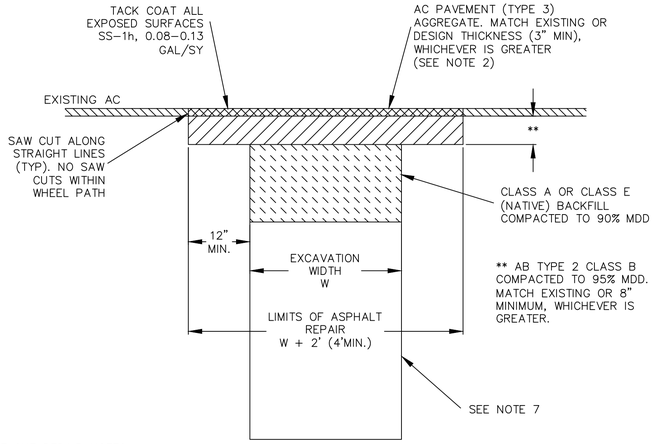
Nevada Tahoe Conservation District

PROFESSIONAL ENGINEER - STATE OF NEVADA
MEGHAN C. KELLY
Exp: 6/30/2019
CIVIL
No. 20851

DETAILS
PITTMAN TERRACE WATER QUALITY
IMPROVEMENT PROJECT

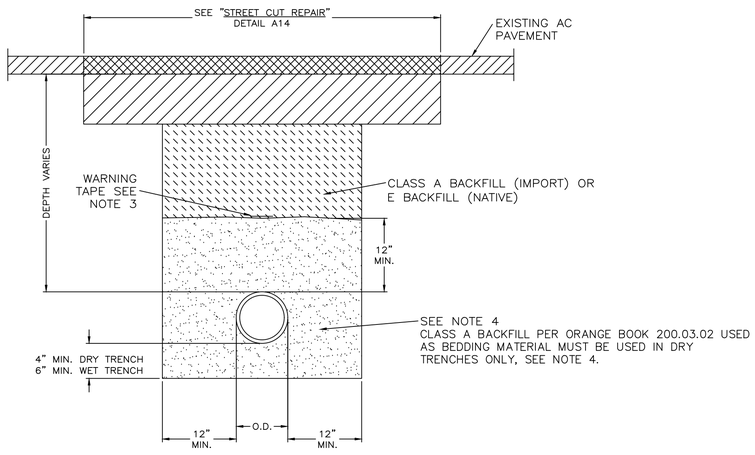
DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT

SHEET
D-3
11 OF 13



STREET CUT REPAIR NOTES:
1. BORE AND JACK OR TRENCHLESS DIRECTIONAL DRILLING IS ALLOWED.
2. PATCH WIDTH:
   A) PATCHES WILL BE 4 FOOT MINIMUM, ANY DIRECTION.
   B) IF EDGE OF PATCHING IS WITHIN 3 FEET OF EDGE OF PAVEMENT OR LIP OF GUTTER, REMOVE AND REPLACE AC PAVEMENT FROM PATCH TO THAT EDGE.
   C) FOR PATCHING IN PAVEMENT SURFACE THAT IS LESS THAN FIVE (5) YEARS OLD OR PCI>80, ENTIRE TRAVEL LANE WIDTH FOR FULL LENGTH OF PAVEMENT PATCH SHALL RECEIVE 1.5" MILL AND OVERLAY.
   D) PLACE SLURRY SEAL OR CHIP SEAL ON STREETS WITH EXISTING SLURRY SEAL OR CHIP SEAL SURFACE.
3. SURFACE TOLERANCES FOR AC PAVEMENT REPAIR SHALL CONFORM TO THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).
4. ASPHALT CONCRETE CONSTRUCTION MATERIALS AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).
5. TYPE 2 CLASS B AGGREGATE BASE SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).
6. ASPHALT CEMENT SHALL BE PG 64-28 NV UNLESS OTHERWISE APPROVED BY DOUGLAS COUNTY ENGINEERING. WHEN PG 64-28 NV ASPHALT CEMENT IS NOT USED, NEW ASPHALT CONCRETE SURFACE SHALL BE FOG SEALED.
7. FOR NON-COUNTY UTILITIES, PIPE ZONE BEDDING PER UTILITY PURVEYOR REQUIREMENTS. BACKFILL PER COUNTY REQUIREMENTS.

DOUGLAS COUNTY STREET CUT REPAIR 1 / D-4
SCALE: N.T.S.

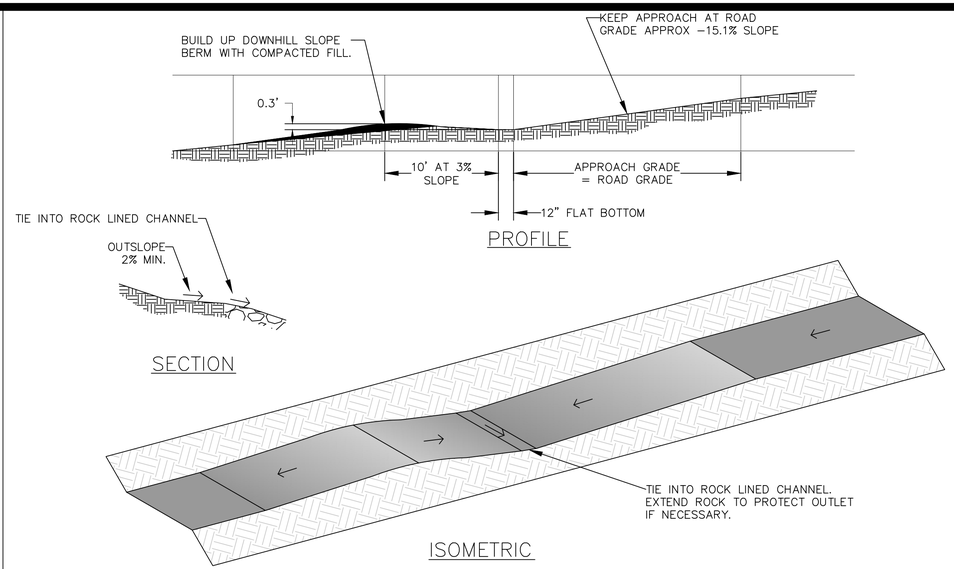


THE FOLLOWING GRADED BEDDING MATERIAL MAY BE USED IN WET TRENCHES:

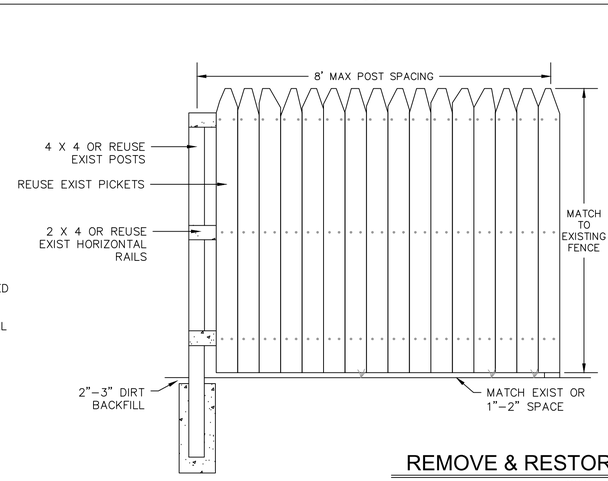
U.S. STANDARD SIEVE SIZE	PERCENT BY WEIGHT PASSING
1.5"	100%
1"	50-90%
3/4"	30-70%
3/8"	10-40%
#4	5-25%
#200	0-10%

STORM DRAIN TRENCH NOTES:
1. ALL REQUIREMENTS OF THE STORM DRAIN UTILITY ORDINANCE MUST BE MET.
2. CLASS A AND CLASS E BACKFILL AND BEDDING MATERIAL SHALL CONFORM TO SECTION 200 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. BEDDING AND BACKFILL SHALL BE MECHANICALLY COMPACTED IN CONFORMANCE WITH SECTION 305.10 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. PLACE WARNING TAPE 1-FOOT ABOVE STORM DRAIN PIPE. WARNING TAPE SHALL READ "CAUTION STORM DRAIN MAIN".
4. CLASS A BACKFILL AS BEDDING MATERIAL PER ORANGE BOOK 200.03.02. COMPACT OR CONSOLIDATE TO PROVIDE PROPER SUPPORT OF PIPE.
5. UTILIZE WATER STOP FOR WET TRENCHES.

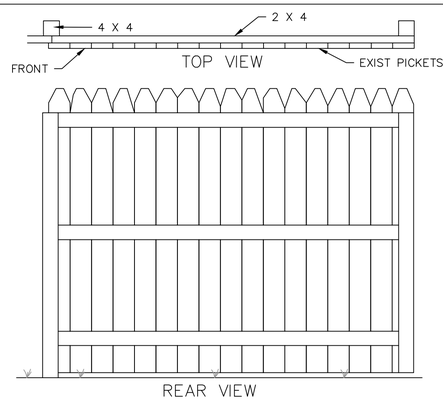
DOUGLAS COUNTY STORM DRAIN TRENCH 2 / D-4
SCALE: N.T.S.



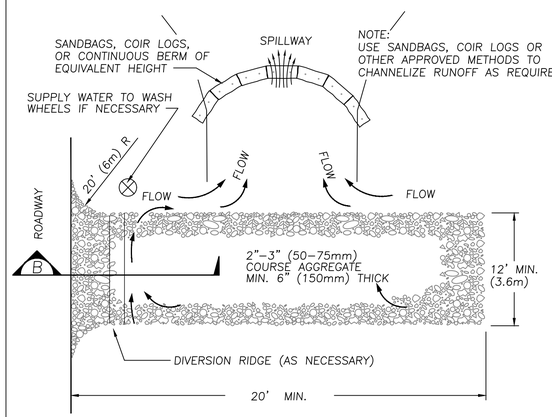
ROLLING DIP 3 / D-4
SCALE: N.T.S.

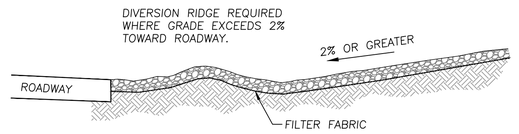


FENCE NOTES:
1. SAVE ALL MATERIALS FROM FENCE REMOVAL.
2. PICKETS MUST BE REUSED TO RESTORE FENCE. POSTS AND HORIZONTAL RAILS MAY BE REPLACED WITH NEW MATERIAL IF NECESSARY FOR FENCE INTEGRITY.
3. EXISTING PICKETS ARE ASYMMETRICAL



REMOVE & RESTORE HISTORIC FENCE 4 / D-4
SCALE: N.T.S.





ROCKED ENTRANCE SECTION B

ROCKED ENTRANCE NOTES
1. THE ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

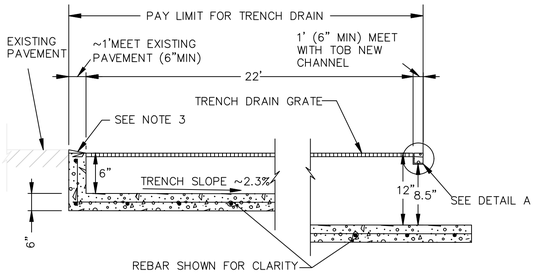
GRAVEL CONSTRUCTION ENTRANCE 5 / D-4
SCALE: N.T.S.

Nevada Tahoe Conservation District

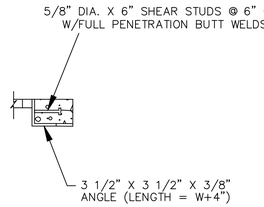
MEGHAN C. KELLY — PROFESSIONAL ENGINEER — STATE OF NEVADA — Exp: 6/30/2019 — CIVIL — No. 20851

DETAILS
PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

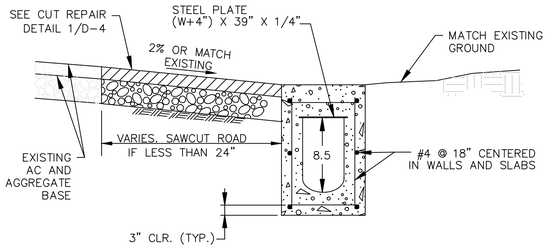
DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	05/2018
SCALE	AS SHOWN
PROJECT	PT
SHEET	D-4



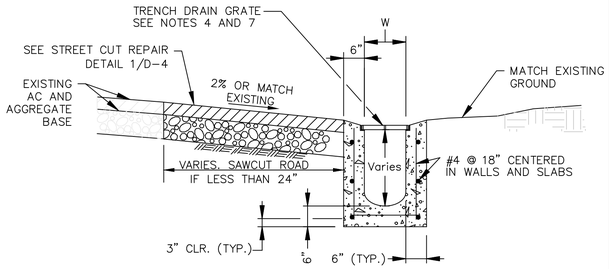
SECTION A–A



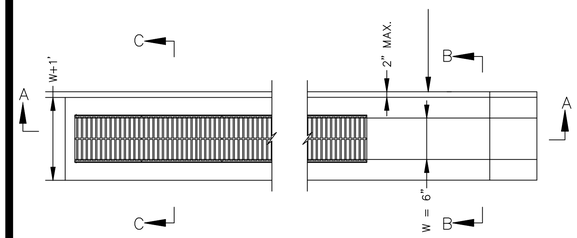
DETAIL A



SECTION B–B



SECTION C–C

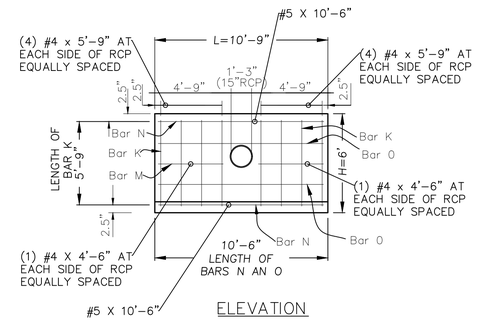


PLAN

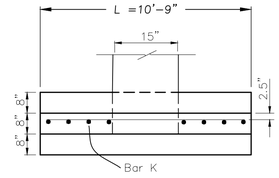
TRENCH DRAIN NOTES:

1. TRENCH DRAIN PRODUCTS SHALL BE ABT TRENCHFORMER OR APPROVED EQUAL. PRODUCTS SHALL BE FROM NDOT QUALIFIED PRODUCT LIST (QPL) FOUND AT http://www.nevadadot.com/About_NDOT/NDOT_Divisions/Planning/Research/Qualified_Products_List.aspx
2. REVISIONS REQUIRE APPROVAL BY THE ENGINEER IN WRITING PRIOR TO CONSTRUCTION.
3. CONSTRUCTION OF THE TRENCH DRAIN SHALL FOLLOW THE MANUFACTURERS RECOMMENDATIONS.
4. TRENCH DRAIN GRATE TO BE 1/4" TO 3/8" BELOW ADJACENT PAVEMENT SURFACE.
5. ALL CONCRETE SHALL BE CLASS A OR AA.
6. GRATE SHALL BE H–20 LOAD RATED AND BICYCLE SAFE.
7. ALL GRATES SHALL BE REMOVABLE. USE TWO–PIECE GRATES THROUGHOUT.
8. TRENCH DRAIN SHALL BE CONNECTED DIRECTLY INTO ROCK LINED CHANNEL. OUTLET SHALL BE AT LEAST 0.5 FT ABOVE CHANNEL FLOWLINE.
9. FORM TRENCH DRAIN OUTLET TO BLEND WITH ROCK LINE CHANNEL SIDE SLOPE.

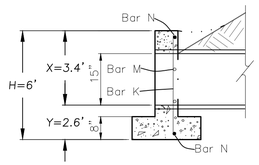
TRENCH DRAIN
SCALE: N.T.S.
1
D-5



ELEVATION



PLAN



SECTION

MODIFIED NDOT STANDARD HEADWALL DIMENSIONS AND REINFORCING STEEL							
0 DEGREE SKEW, H(total)= 5'- 4", L(total) =10'- 9", 15" RCP							
				BARS			
H [FT- IN]	L [FT-IN]	X [FT]	Y [FT]	K No 4 [# @FT -IN]	N No 5 [# @FT-IN]	M No 4 [# @FT-IN]	O No 4 [# @FT-IN]
5' -4"	10'-9"	3.4'	2.6'	8 @ 5' - 9"	2 @ 10'-6"	2 @ 4'- 6"	2 @ 10'- 6"

NDOT STANDARD HEADWALL NOTES:
1. CONCRETE SHALL BE NDOT CLASS A OR AA.
2. REINFORCING STEEL SHALL BE DEFORMED BARS WITH MAXIMUM SPACING OF 18" SET 2.5" CLEAR OF SURFACE OF CONCRETE EXCEPT AS NOTED. BAR ENDS SHALL BE KEPT 1.5" CLEAR OF SURFACE OF CONCRETE. REINFORCING BARS MAY BE CUT AND BENT IN FIELD.
3. FOOTINGS SHOWN ARE OF MINIMUM DEPTH AND SHALL BE EXTENDED IF SOIL IS UNSUITABLE OR LIABLE TO SCOUR.

MODIFIED NDOT STANDARD HEADWALL
SCALE: N.T.S.
2
D-5

Nevada Tahoe Conservation District

DETAILS
PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

DESIGNED/DRAWN
MBG/CFW
CHECKED
MCK
DATE
05/2018
SCALE
AS SHOWN
PROJECT
PT
SHEET
D-5
13 OF 13