

# JACK REVIGLIO MEMORIAL PARK CITY OF SPARKS

7130 TRUTH DRIVE, SPARKS, NEVADA 89436

APN: 526-274-01

PWP # WA-2021-168, BID # 20/21-013



**OWNER:**

CITY OF SPARKS  
431 PRATER WAY, SPARKS, NV 89431  
(775) 353-5555

**CIVIL:**



**LANDSCAPE ARCHITECT:**

L.A. STUDIO NEVADA  
1552 C ST., SPARKS, NV 89431  
(775) 323-2223

**ELECTRICAL ENGINEER:**

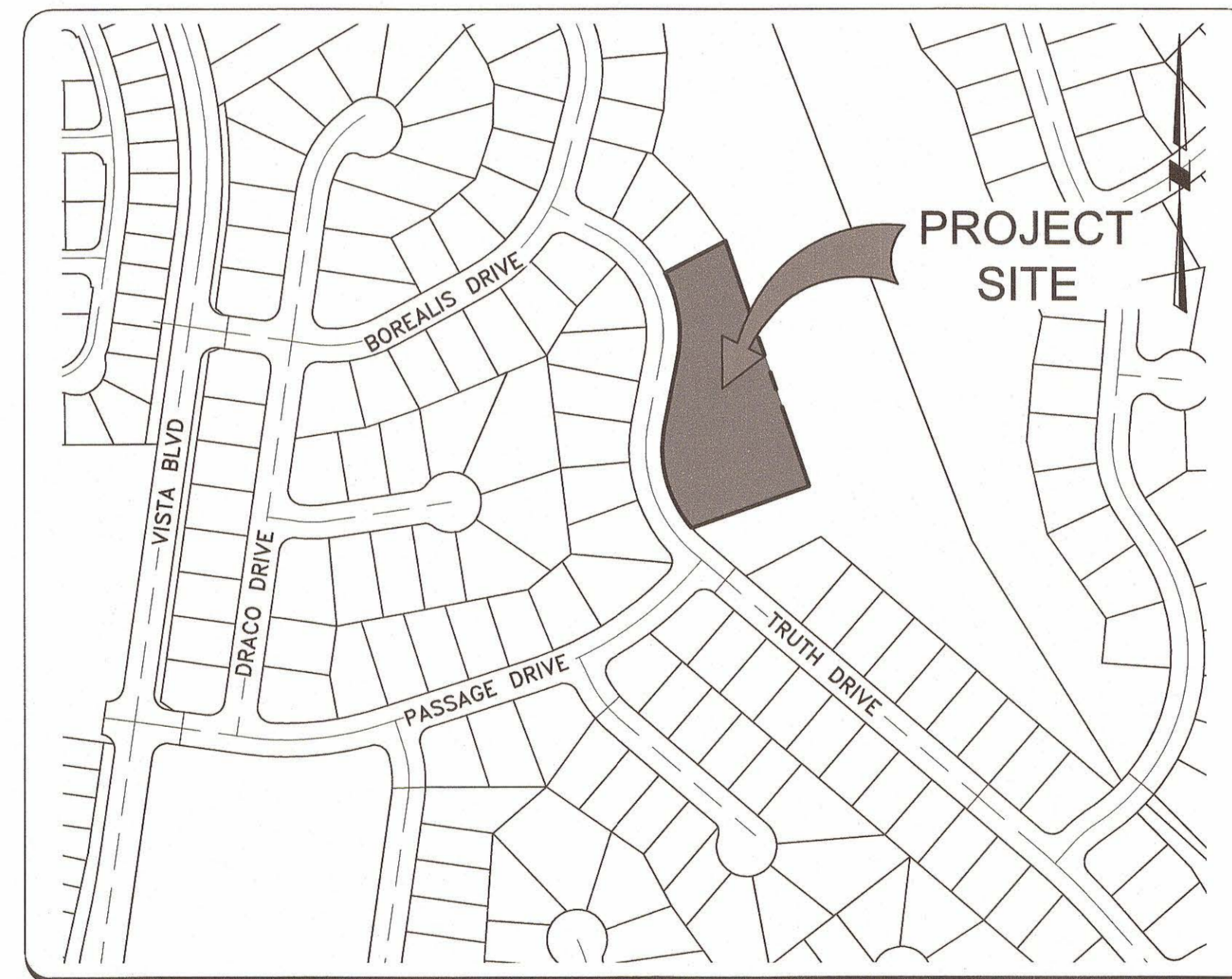
JENSEN ENGINEERING, INC.  
9655 GATEWAY DRIVE, RENO, NV 89521-2968  
(775) 852-2288

**BASIS OF BEARING:**

THE BASIS OF BEARINGS FOR THIS SURVEY IS NEVADA STATE PLANE, WEST ZONE NAD83(94) BASED ON REAL TIME KINEMATIC (RTK) GPS OBSERVATIONS UTILIZING CORRECTIONS FROM THE NORTHERN NEVADA COOPERATIVE REAL TIME NETWORK. COORDINATES AND DISTANCES HEREON ARE AT GROUND LEVEL BASED ON A COMBINED GRID TO GROUND FACTOR OF 1.000197939.

**BASIS OF ELEVATION:**

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED UPON CITY OF SPARKS BENCHMARK #135 WITH AN ELEVATION OF 4525.73. BEING A CITY OF SPARKS ALUMINUM DISK W/NAIL IN CONCRETE STAMPED WITH BENCHMARK NUMBER.



VICINITY MAP

SCALE: NTS

**SHEET INDEX:**

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2	C1.1	GENERAL NOTES
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4	C3.0	SITE & UTILITY PLAN
5	C4.0	GRADING PLAN
6	C4.1	SWPPP
7	C5.0	CIVIL DETAILS
8	C5.1	CIVIL DETAILS
9	C6.0	TEST PIT LOG
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11	L2	REFERENCE PLAN
12	L3	IRRIGATION PLAN
13	L4	IRRIGATION DETAILS
14	L5	DETAILS
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17	E1	ELECTRICAL SPECIFICATIONS
18	E2	ELECTRICAL SCHEDULE
19	E3	SITE PLAN - ELECTRICAL

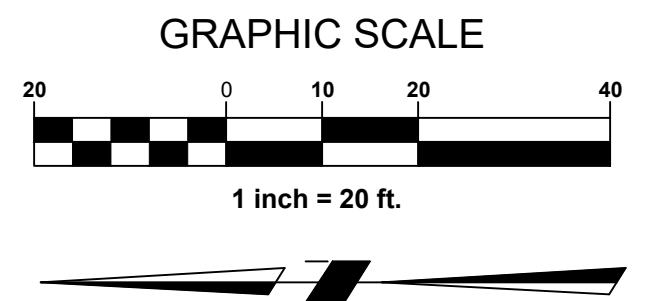
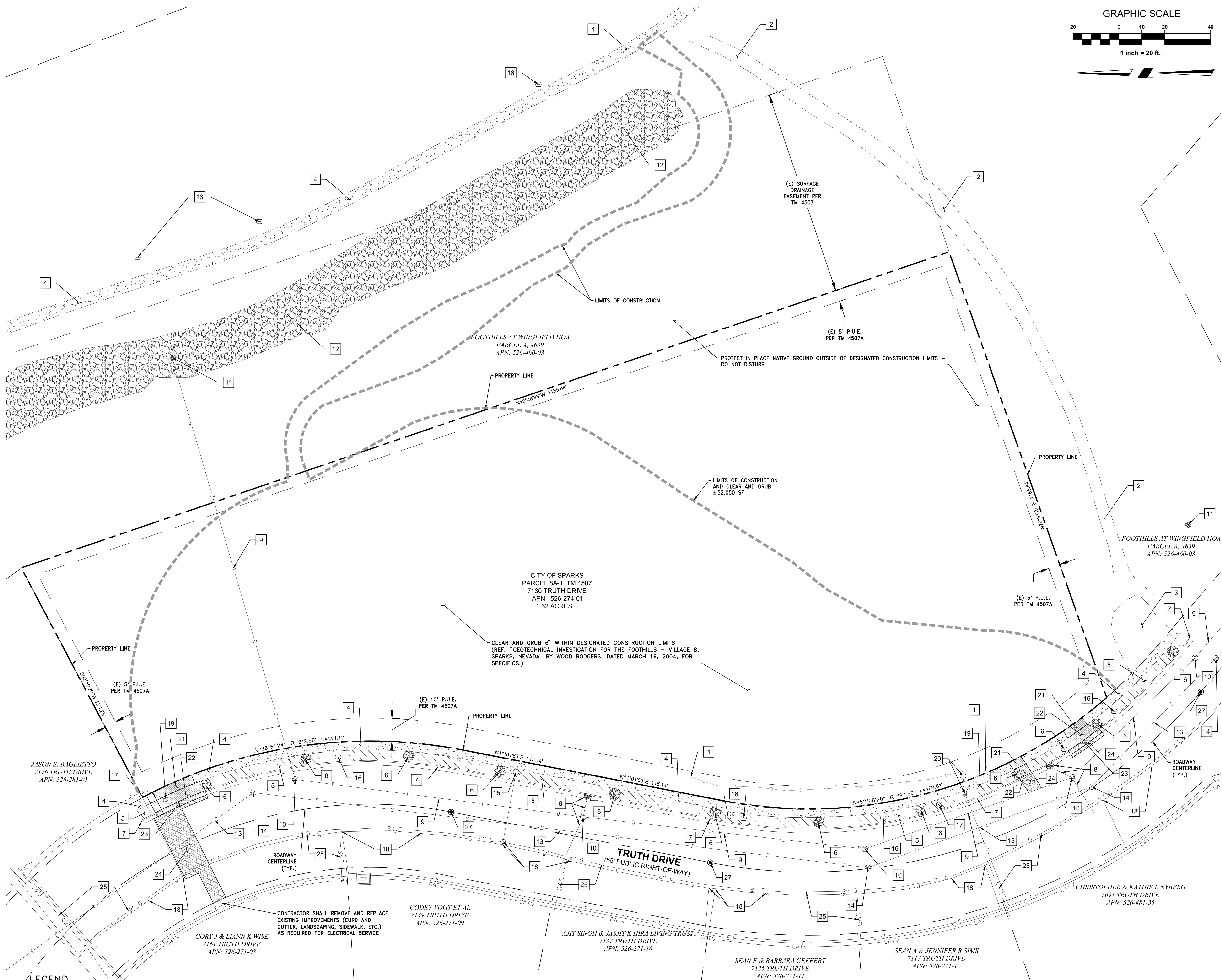
*Tony Pehle*

TONY PEHLE  
ACTING DIRECTOR PARKS AND RECREATION DEPARTMENT

2/12/2021  
02/10/2021

FOR BID/CONSTRUCTION  
02/10/2021





- ### # DEMOLITION NOTES
- 1 REMOVE (E) FENCE
  - 2 PROTECT IN PLACE (E) GRAVEL PATH
  - 3 PROTECT IN PLACE (E) ROCK/GRAVEL AREA
  - 4 PROTECT IN PLACE (E) PCC SIDEWALK
  - 5 PROTECT IN PLACE (E) LANDSCAPING
  - 6 PROTECT IN PLACE (E) TREES
  - 7 PROTECT IN PLACE (E) TYPE 1 PCC CURB & GUTTER
  - 8 PROTECT IN PLACE (E) TYPE 4R CATCH BASIN AND STORM DRAIN LATERAL PIPE
  - 9 PROTECT IN PLACE (E) STORM DRAIN MAIN
  - 10 PROTECT IN PLACE (E) STORM DRAIN MANHOLE
  - 11 PROTECT IN PLACE (E) STORM DRAIN DROP INLET
  - 12 PROTECT IN PLACE (E) RIP RAP DRAINAGE CHANNEL
  - 13 PROTECT IN PLACE (E) SANITARY SEWER MAIN
  - 14 PROTECT IN PLACE (E) SANITARY SEWER MANHOLE
  - 15 PROTECT IN PLACE (E) FIRE HYDRANT
  - 16 PROTECT IN PLACE (E) WATER IRRIGATION BOX
  - 17 PROTECT IN PLACE (E) WATER METER
  - 18 PROTECT IN PLACE (E) WATER MAIN, LATERALS, AND VALVES. REF. TMWA PLANS.
  - 19 PROTECT IN PLACE (E) LIGHT POLE.
  - 20 PROTECT IN PLACE (E) ELECTRICAL PEDESTAL AND BOX.
  - 21 REMOVE (E) CONCRETE SIDEWALK.
  - 22 REMOVE (E) TURF/GRASS.
  - 23 REMOVE (E) CURB AND GUTTER.
  - 24 REMOVE (E) ASPHALT CONCRETE PAVEMENT.
  - 25 PROTECT IN PLACE (E) GAS MAIN AND LATERALS.
  - 26 PROTECT IN PLACE (E) GAS MAIN AND LATERALS.
  - 27 PROTECT IN PLACE (E) SURVEY MONUMENT.

NO.	DATE	REVISIONS

PROFESSIONAL SEAL:

02/10/2021

**CFA, INC.**  
**LAND SURVEYORS**  
**CIVIL ENGINEERS**  
**LAND USE PLANNERS**  
 1150 CORPORATE BOULEVARD • RENO, NEVADA 89502  
 775-856-1150 FAX • 775-856-1160 FAX • CFA@CFAINC.COM



Know what's below.  
Call before you dig.

**CAUTION – NOTICE TO CONTRACTOR**

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND FEATURES AS SHOWN ON THESE PLANS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS AND/OR ELEVATIONS AT THE PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OR RELOCATE ALL EXISTING UTILITIES AND FEATURES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. CONTRACTOR SHALL OBTAIN APPROVALS FROM THE GOVERNING AGENCIES, THE ENGINEER, AND THE UTILITY COMPANIES PRIOR TO SUCH REMOVAL AND/OR RELOCATION.
4. THE CONTRACTOR ASSUMES ALL RISK FOR ANY CONSTRUCTION PERFORMED WITH PRELIMINARY OR NON-APPROVED PLANS.
5. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN CONFORMANCE WITH THE LATEST EDITION OF MUTCD WHENEVER CONSTRUCTION IS IN PROGRESS WITHIN THE PUBLIC TRAVEL WAY.

**LEGEND**

- |  |                                        |  |                              |  |                                     |  |                                        |
|--|----------------------------------------|--|------------------------------|--|-------------------------------------|--|----------------------------------------|
|  | PROTECT IN PLACE (E) CONCRETE SIDEWALK |  | REMOVE (E) CONCRETE SIDEWALK |  | REMOVE (E) CONCRETE CURB AND GUTTER |  | PROPOSED SAWCUT                        |
|  | PROTECT IN PLACE (E) LANDSCAPING       |  | REMOVE (E) LANDSCAPING       |  | REMOVE (E) ASPHALT CONCRETE         |  | (E) SURVEY MONUMENT – PROTECT IN PLACE |

WARNING: WRITTEN CONSENT IS REQUIRED OF CFA, OWNER OF DESIGNS & DRAWINGS AS INSTRUMENTS OF SERVICE, FOR DUPLICATION AND/OR DISTRIBUTION OF DOCUMENTS.

NEVADA

JACK REVIGLIO MEMORIAL PARK  
CITY OF SPARKS

**DEMOLITION PLAN**

SPARKS

JOB NO. 18-067.00  
 DESIGNED BY BEH/CH  
 CHECKED BY MW  
 DATE 10-31-2019

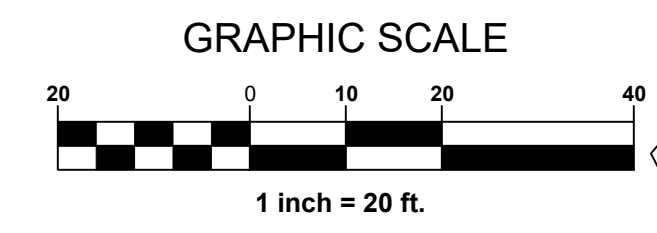
SHEET  
**C2.0**  
 OF 8

**CAUTION — NOTICE TO CONTRACTOR**

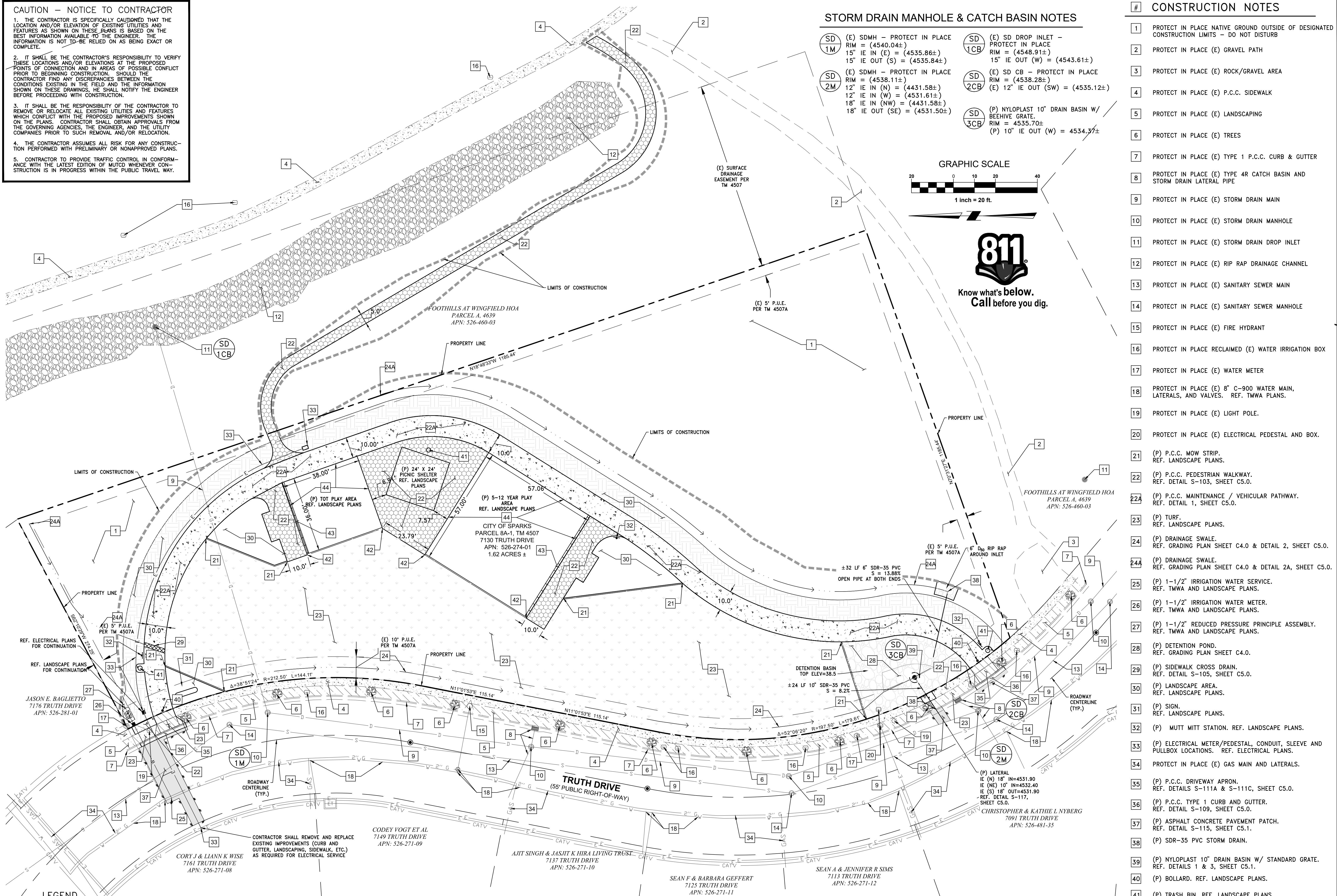
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**STORM DRAIN MANHOLE & CATCH BASIN NOTES**

- (E) SDMH - PROTECT IN PLACE  
RIM = (4540.04±)  
15" IE IN (E) = (4535.86±)  
15" IE OUT (S) = (4535.84±)
- (E) SD DROP INLET - PROTECT IN PLACE  
RIM = (4548.91±)  
15" IE OUT (W) = (4543.61±)
- (E) SDMH - PROTECT IN PLACE  
RIM = (4538.11±)  
12" IE IN (N) = (4431.58±)  
12" IE IN (W) = (4531.61±)  
18" IE IN (NW) = (4431.58±)  
18" IE OUT (SE) = (4531.50±)
- (E) SD CB - PROTECT IN PLACE  
RIM = (4538.28±)  
(E) 12" IE OUT (SW) = (4535.12±)
- (P) NYLOPLAST 10" DRAIN BASIN W/ BEEHIVE GRATE.  
RIM = 4535.70±  
(P) 10" IE OUT (W) = 4534.37±



Know what's below.  
Call before you dig.



**CONSTRUCTION NOTES**

1. PROTECT IN PLACE NATIVE GROUND OUTSIDE OF DESIGNATED CONSTRUCTION LIMITS - DO NOT DISTURB
2. PROTECT IN PLACE (E) GRAVEL PATH
3. PROTECT IN PLACE (E) ROCK/GRAVEL AREA
4. PROTECT IN PLACE (E) P.C.C. SIDEWALK
5. PROTECT IN PLACE (E) LANDSCAPING
6. PROTECT IN PLACE (E) TREES
7. PROTECT IN PLACE (E) TYPE 1 P.C.C. CURB & GUTTER
8. PROTECT IN PLACE (E) TYPE 4R CATCH BASIN AND STORM DRAIN LATERAL PIPE
9. PROTECT IN PLACE (E) STORM DRAIN MAIN
10. PROTECT IN PLACE (E) STORM DRAIN MANHOLE
11. PROTECT IN PLACE (E) STORM DRAIN DROP INLET
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13. PROTECT IN PLACE (E) SANITARY SEWER MAIN
14. PROTECT IN PLACE (E) SANITARY SEWER MANHOLE
15. PROTECT IN PLACE (E) FIRE HYDRANT
16. PROTECT IN PLACE RECLAIMED (E) WATER IRRIGATION BOX
17. PROTECT IN PLACE (E) WATER METER
18. PROTECT IN PLACE (E) 8" C-900 WATER MAIN, LATERALS, AND VALVES. REF. TMWA PLANS.
19. PROTECT IN PLACE (E) LIGHT POLE.
20. PROTECT IN PLACE (E) ELECTRICAL PEDESTAL AND BOX.
21. (P) P.C.C. MOW STRIP. REF. LANDSCAPE PLANS.
22. (P) P.C.C. PEDESTRIAN WALKWAY. REF. DETAIL S-103, SHEET C5.0.
- 22A. (P) P.C.C. MAINTENANCE / VEHICULAR PATHWAY. REF. DETAIL 1, SHEET C5.0.
23. (P) TURF. REF. LANDSCAPE PLANS.
24. (P) DRAINAGE SWALE. REF. GRADING PLAN SHEET C4.0 & DETAIL 2, SHEET C5.0.
- 24A. (P) DRAINAGE SWALE. REF. GRADING PLAN SHEET C4.0 & DETAIL 2A, SHEET C5.0.
25. (P) 1-1/2" IRRIGATION WATER SERVICE. REF. TMWA AND LANDSCAPE PLANS.
26. (P) 1-1/2" IRRIGATION WATER METER. REF. TMWA AND LANDSCAPE PLANS.
27. (P) 1-1/2" REDUCED PRESSURE PRINCIPLE ASSEMBLY. REF. TMWA AND LANDSCAPE PLANS.
28. (P) DETENTION POND. REF. GRADING PLAN SHEET C4.0.
29. (P) SIDEWALK CROSS DRAIN. REF. DETAIL S-105, SHEET C5.0.
30. (P) LANDSCAPE AREA. REF. LANDSCAPE PLANS.
31. (P) SIGN. REF. LANDSCAPE PLANS.
32. (P) MUTT MITT STATION. REF. LANDSCAPE PLANS.
33. (P) ELECTRICAL METER/PEDESTAL, CONDUIT, SLEEVE AND PULLBOX LOCATIONS. REF. ELECTRICAL PLANS.
34. PROTECT IN PLACE (E) GAS MAIN AND LATERALS.
35. (P) P.C.C. DRIVEWAY APRON. REF. DETAILS S-111A & S-111C, SHEET C5.0.
36. (P) P.C.C. TYPE 1 CURB AND GUTTER. REF. DETAIL S-109, SHEET C5.0.
37. (P) ASPHALT CONCRETE PAVEMENT PATCH. REF. DETAIL S-115, SHEET C5.1.
38. (P) SDR-35 PVC STORM DRAIN.
39. (P) NYLOPLAST 10" DRAIN BASIN W/ STANDARD GRATE. REF. DETAILS 1 & 3, SHEET C5.1.
40. (P) BOLLARD. REF. LANDSCAPE PLANS.
41. (P) TRASH BIN. REF. LANDSCAPE PLANS.
42. (P) P.C.C. PLAY CURB. REF. LANDSCAPE PLANS.
43. (P) PLAY YARD DRAIN LOCATION. REF. LANDSCAPE PLANS.
44. (P) P.C.C. SIDEWALK AT PLAY AREAS WITH THICKENED EDGE. REF. LANDSCAPE PLANS.

**LEGEND**

- (P) P.C.C. MAINTENANCE / VEHICULAR PATHWAY REF. DETAIL 2, SHEET C5.0.
- (P) P.C.C. PEDESTRIAN WALKWAY REF. DETAIL 1, SHEET C5.0.
- (P) LANDSCAPE AREA REF. LANDSCAPE PLANS.
- (P) P.C.C. DRIVEWAY APRON REF. DETAILS 5 & 6, SHEET C5.0.
- (P) RIP RAP REF. LANDSCAPE PLANS.
- PROTECT IN PLACE (E) CONCRETE SIDEWALK
- PROTECT IN PLACE (E) LANDSCAPING
- (P) TURF. REF. LANDSCAPE PLANS.
- PROPOSED SAWCUT
- (E) SURVEY MONUMENT - PROTECT IN PLACE

PROFESSIONAL SEAL: KATHLEEN KNIGHT CIVIL Exp. 06-30-21 No. 26935

02/10/2021

CFA, INC. LAND SURVEYORS CIVIL ENGINEERS LAND USE PLANNERS 1150 CORPORATE BOULEVARD • RENO, NEVADA 89502 775-856-1150 MAIN • 775-856-1160 FAX • CFARENCO.COM

JACK REVILGIO MEMORIAL PARK CITY OF SPARKS

**SITE & UTILITY PLAN**

NEVADA SPARKS

JOB NO. 18-067.00  
DESIGNED BY BEH/CH  
CHECKED BY MW  
DATE 10-31-2019

SHEET **C3.0**

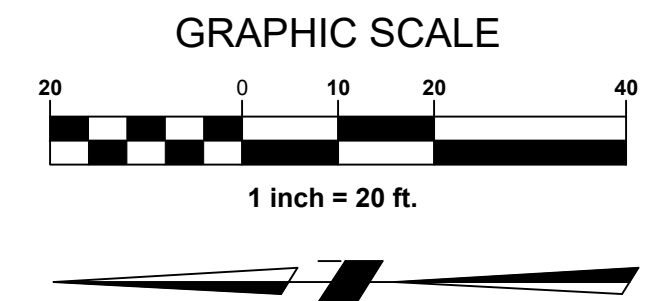
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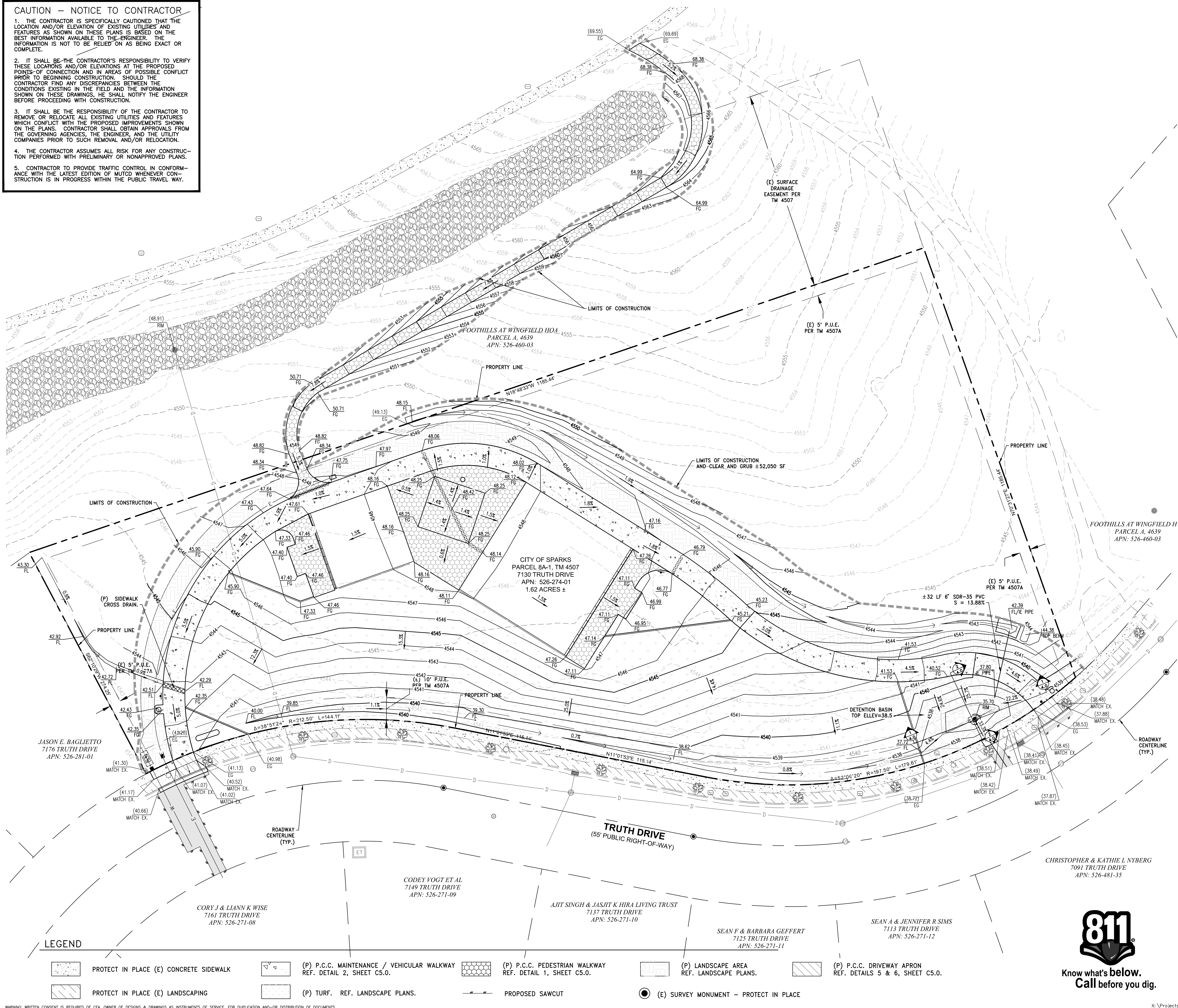
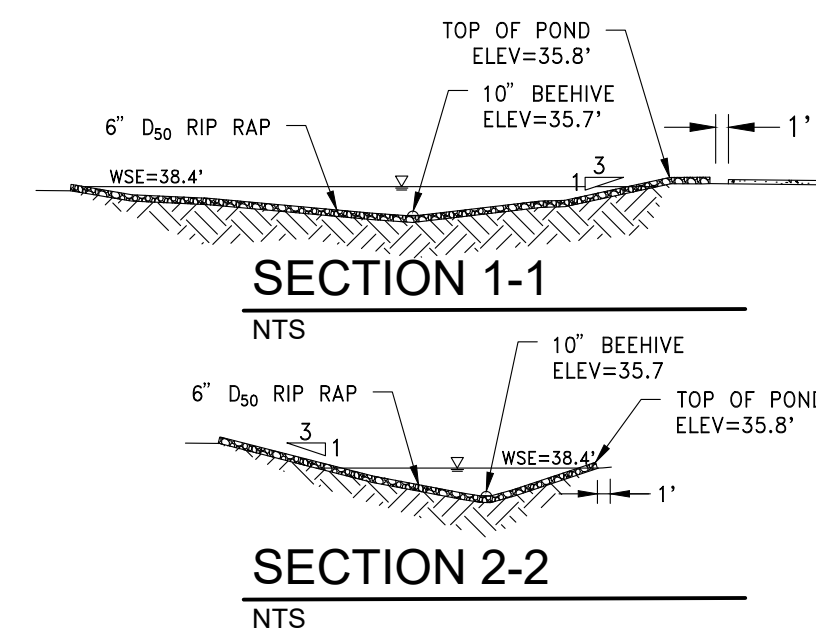


**GRADING NOTES**

- 1) ADD 4500 FEET TO ALL ELEVATIONS.

CUT/FILL SCHEDULE	
CUT	1,587 CY
FILL	540 CY
NET (CUT)	1,048 CY

**DETENTION BASIN SECTIONS**



**LEGEND**

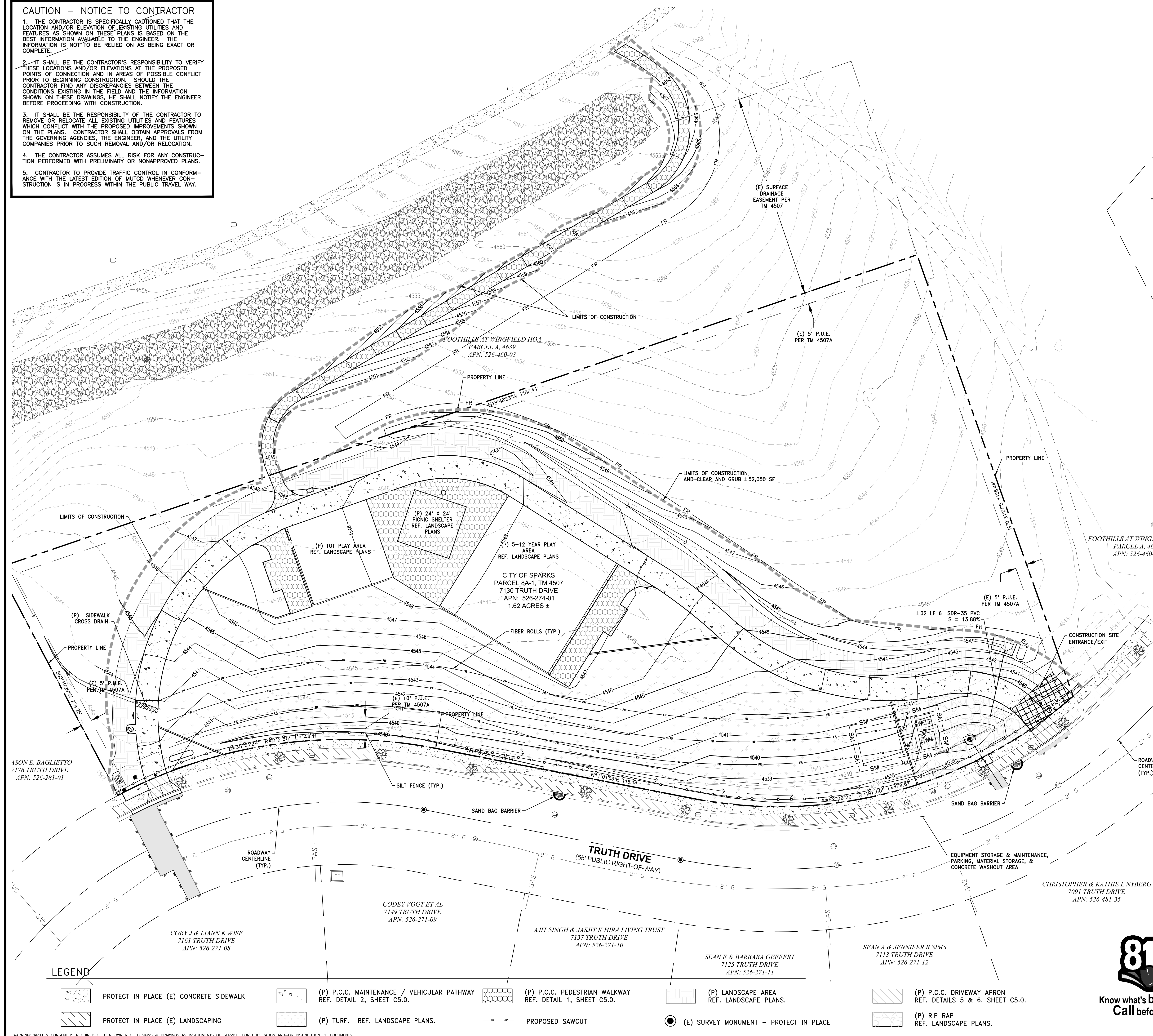
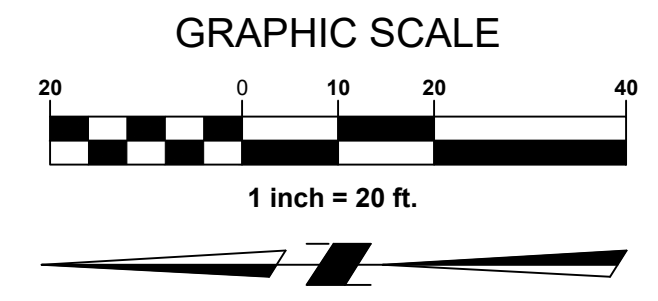
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- (P) P.C.C. PEDESTRIAN WALKWAY REF. DETAIL 1, SHEET C5.0.
- (P) LANDSCAPE AREA REF. LANDSCAPE PLANS.
- (P) P.C.C. DRIVEWAY APRON REF. DETAILS 5 & 6, SHEET C5.0.
- PROPOSED SAWCUT
- (E) SURVEY MONUMENT - PROTECT IN PLACE



<p>PROFESSIONAL SEAL:</p> <p>02/10/2021</p> <p><b>CFA, INC.</b> LAND SURVEYORS CIVIL ENGINEERS LAND USE PLANNERS 1150 CORPORATE BOULEVARD • RENO, NEVADA 89502 775-856-1150 MAIN • 775-856-1160 FAX • CFA@CFAINC.COM</p>	<p>JACK REVIGLIO MEMORIAL PARK CITY OF SPARKS</p> <p><b>GRADING PLAN</b></p> <p>NEVADA SPARKS</p> <p>JOB NO. 18-067.00 DESIGNED BY BEH/CH CHECKED BY MW DATE 10-31-2019</p> <p>SHEET <b>C4.0</b> 8</p>
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BMP NO.	BMP NAME	MAP SYMBOL
SC-8	CONSTRUCTION SITE ENTRANCE & EXIT	
DP-3	SAND BAG BARRIERS (STORM DRAIN INLET PROTECTION)	
GM-2	STOCK PILE MANAGEMENT	
GM-5	STREET SWEEPING	
GM-8	VEHICLE AND EQUIPMENT MAINTENANCE AND FUELING	
GM-9	HANDLING AND DISPOSAL OF CONCRETE AND CEMENT	
GM-10	MATERIAL DELIVERY, HANDLING, STORAGE, AND USE	
SC-1	FIBER ROLLS (WATTLES)	
SC-5	SILT FENCE (MAY BE ATTACHED TO TEMPORARY CONSTRUCTION FENCE)	

**STORMWATER QUALITY NOTES**

1. STANDARD NOTE NO. 1: THE OWNER, SITE DEVELOPER, 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 PUBLIC RIGHTS OF WAYS OF THE CITY OF RENO OR WASHOE COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. STANDARD NOTE NO. 2: ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN WASHOE COUNTY CODE AND THE TRUCKEE MEADOWS CONSTRUCTION SITE BEST MANAGEMENT PRACTICES HANDBOOK.
3. STANDARD NOTE NO. 3: TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO STORMWATER GENERAL PERMIT NVR100000, SECTION 1.B.1.b.(2).
4. STANDARD NOTE NO. 4: 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 BMPs WEEKLY, PRIOR TO A FORECASTED RAIN EVENT AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS FROZEN GROUND CONDITIONS OR SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO STORMWATER GENERAL PERMIT NVR100000, SECTION 1.B.1.g.
5. STANDARD NOTE NO. 5: ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.
6. STANDARD NOTE NO. 6: UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL PERMANENTLY REVEGETATE ALL AREAS DISTURBED WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED.
7. TEMPORARY BMPs SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.

REVISIONS

NO.	DATE	BY

PROFESSIONAL SEAL:

02/10/2021

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LAND SURVEYORS  
CIVIL ENGINEERS  
LAND USE PLANNERS  
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CITY OF SPARKS

**SWPPP**

NEVADA  
SPARKS

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DESIGNED BY BEH/CH  
CHECKED BY MW  
DATE 10-31-2019

SHEET **C4.1**

8

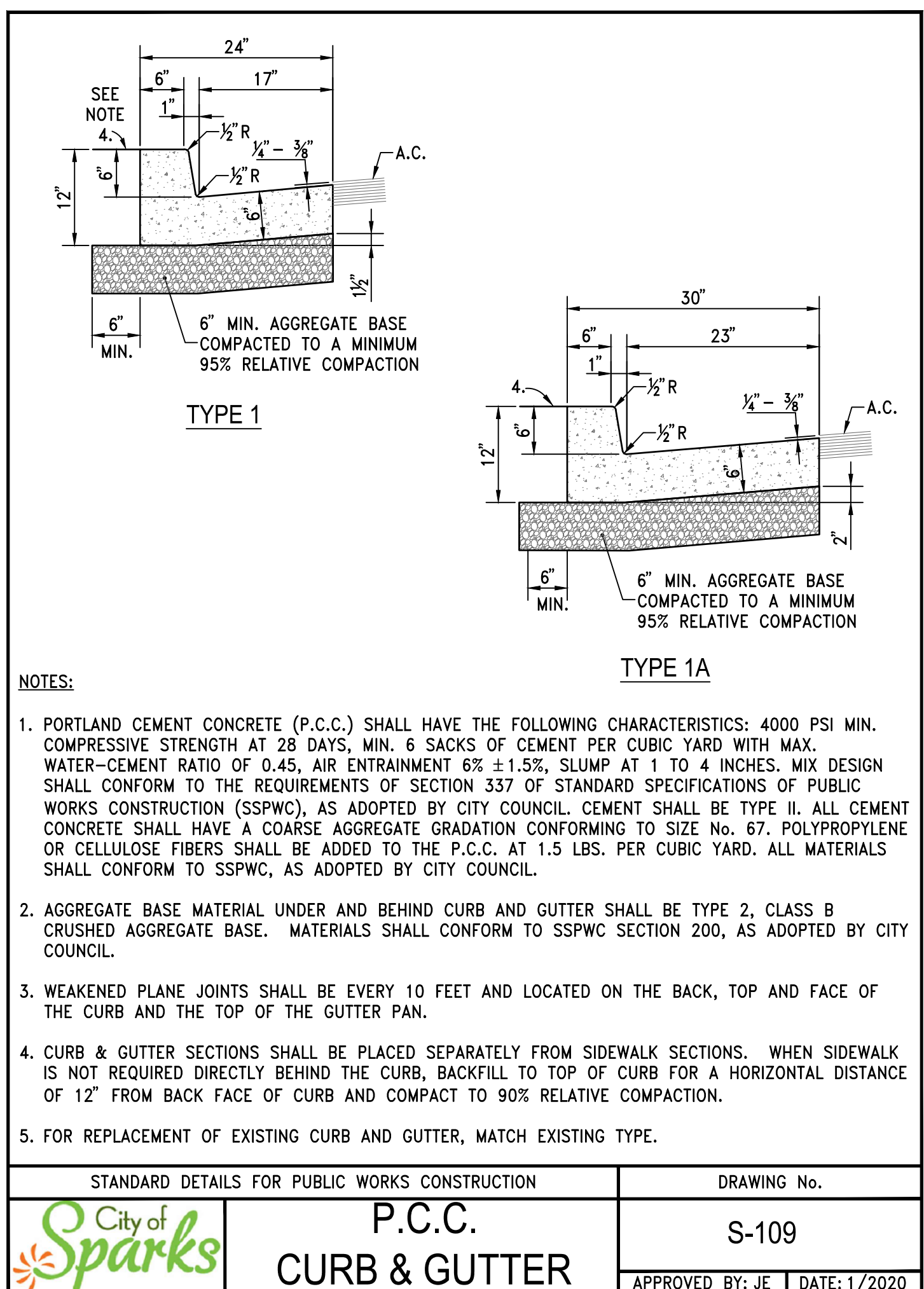
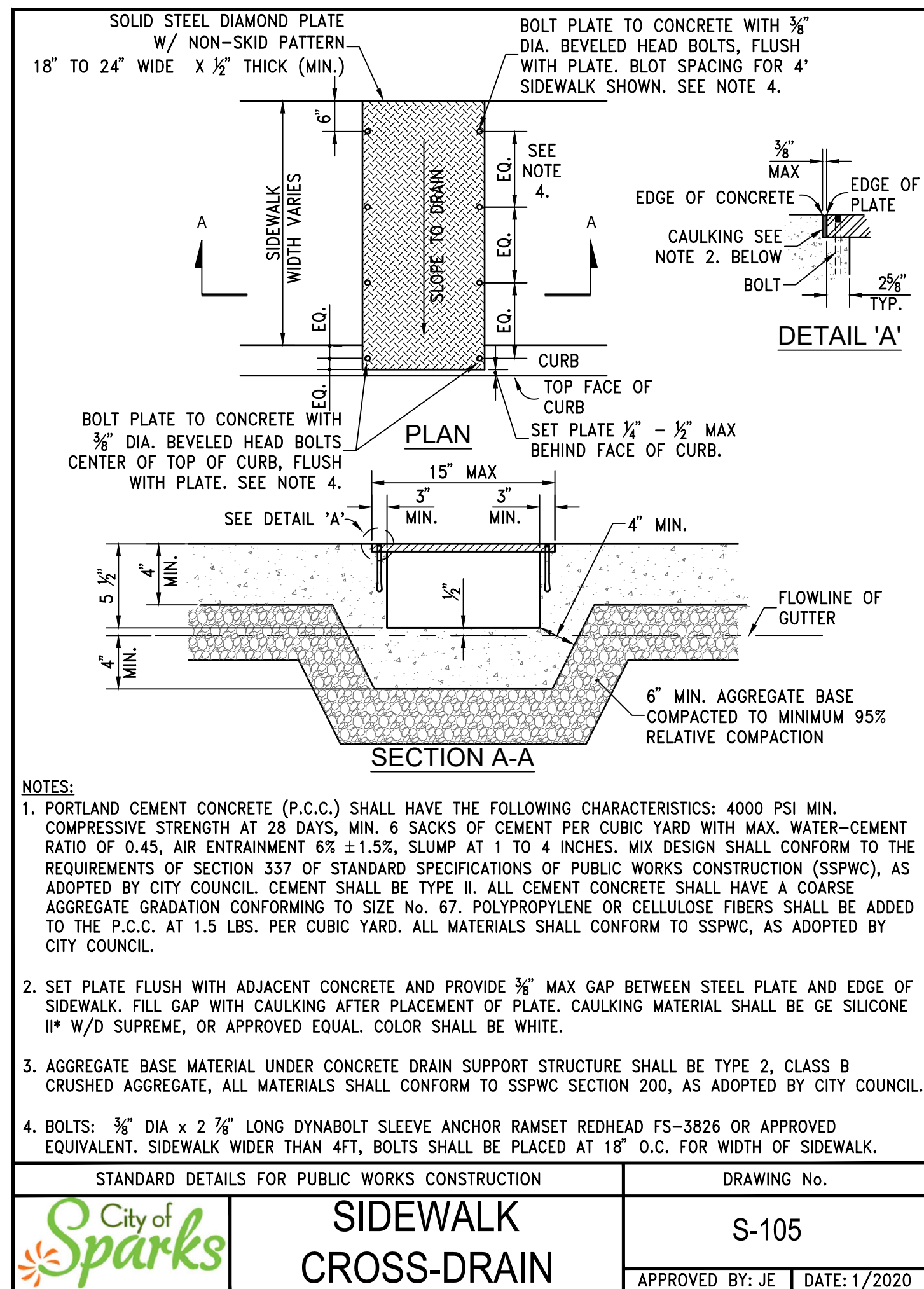
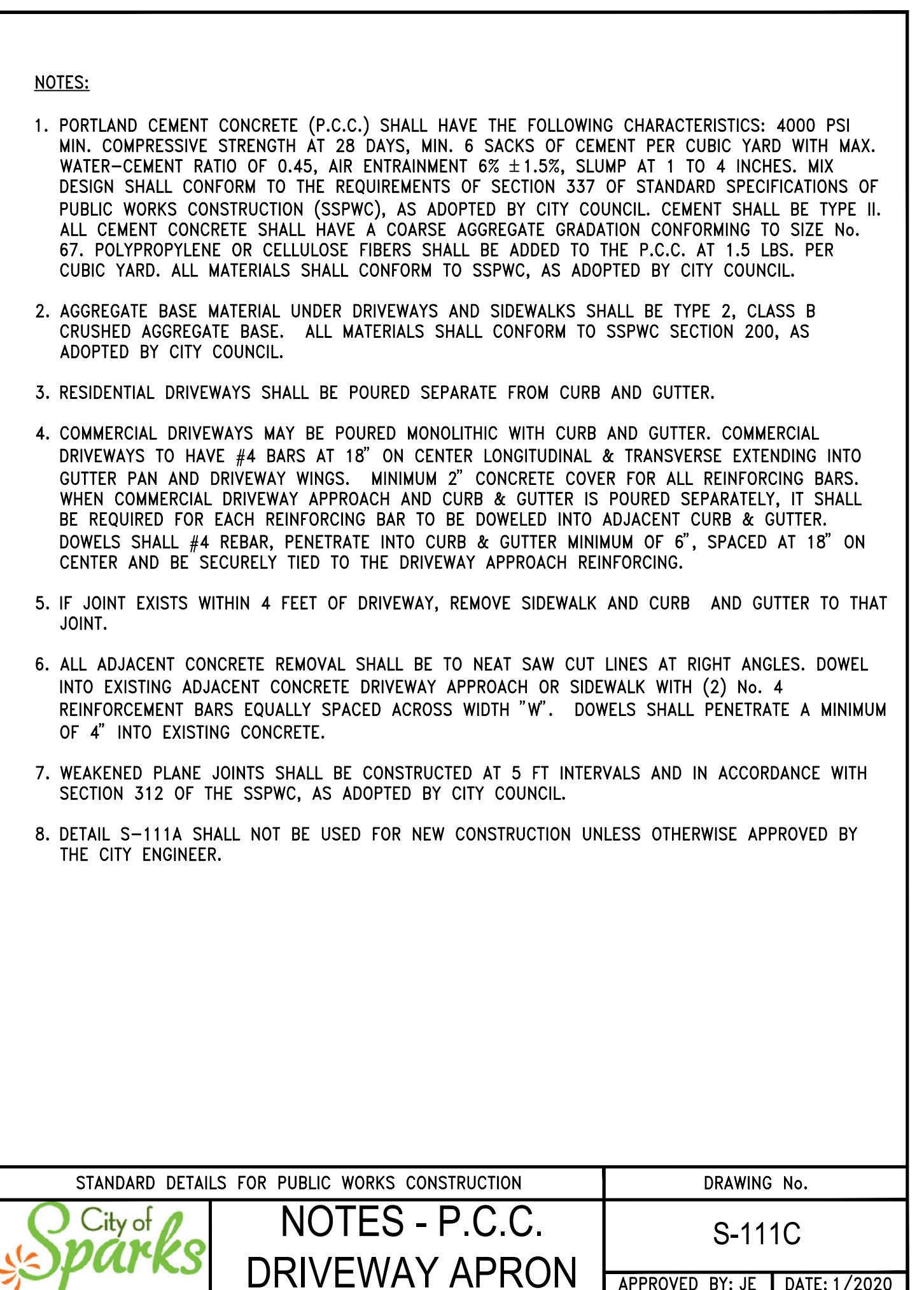
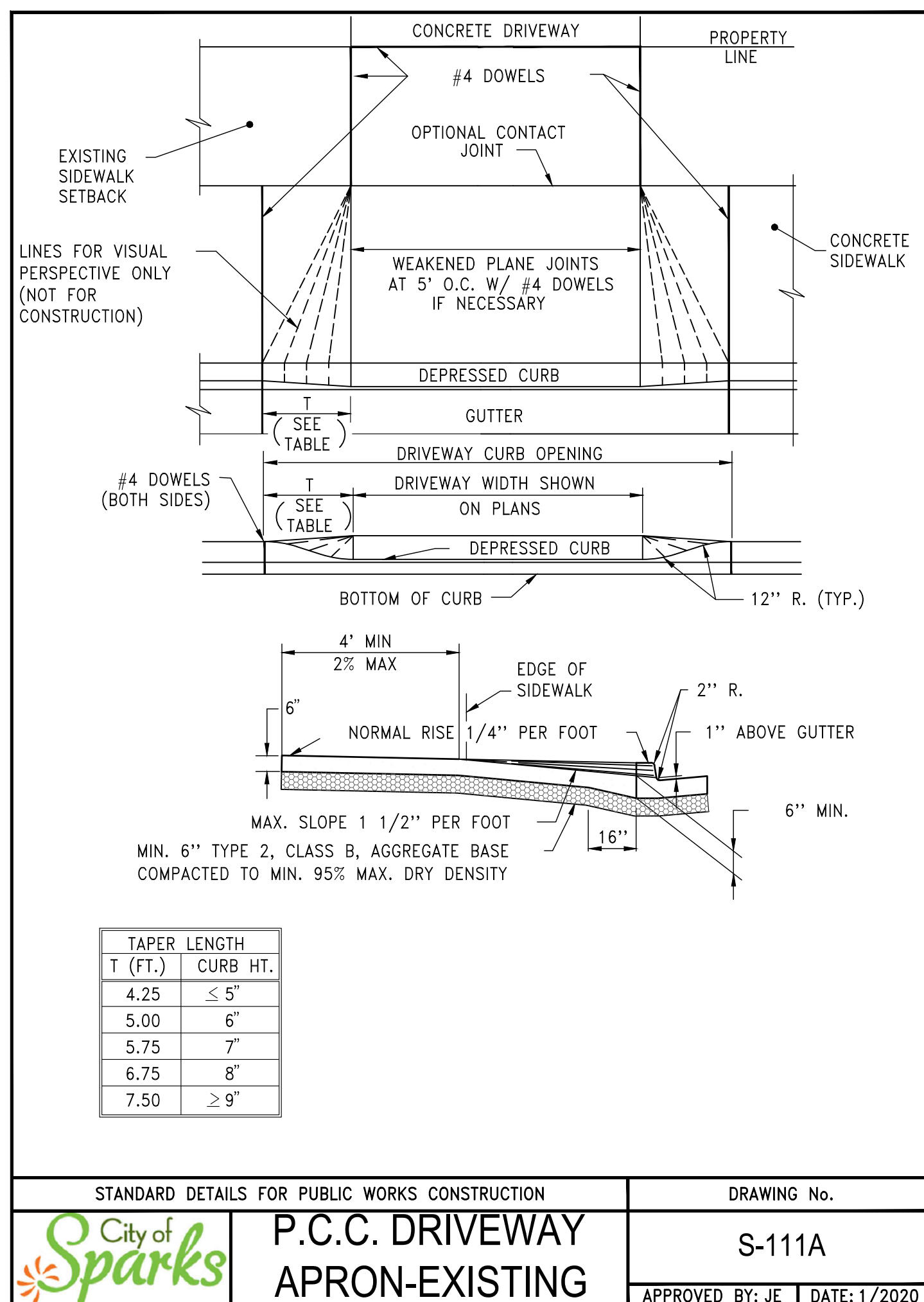
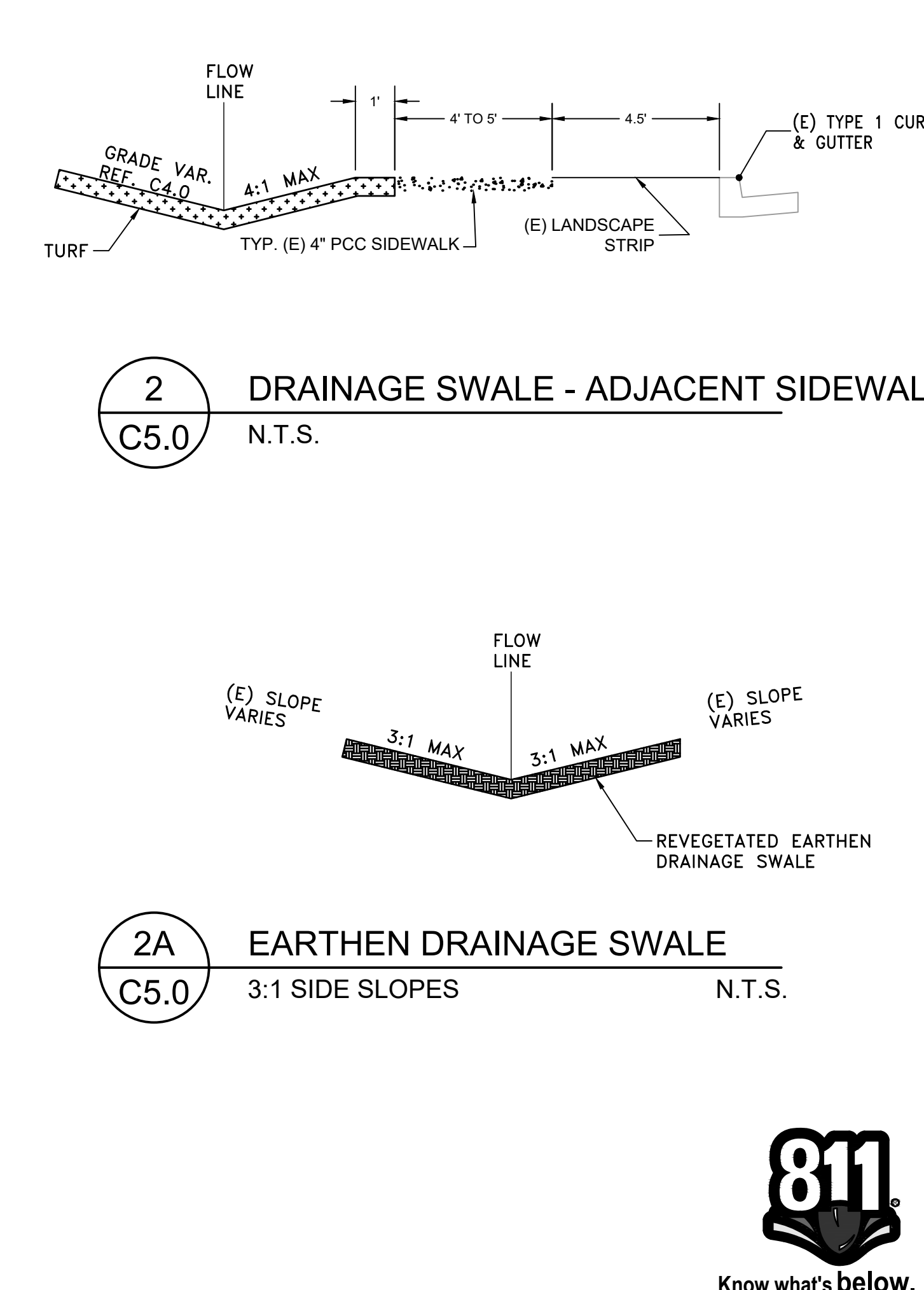
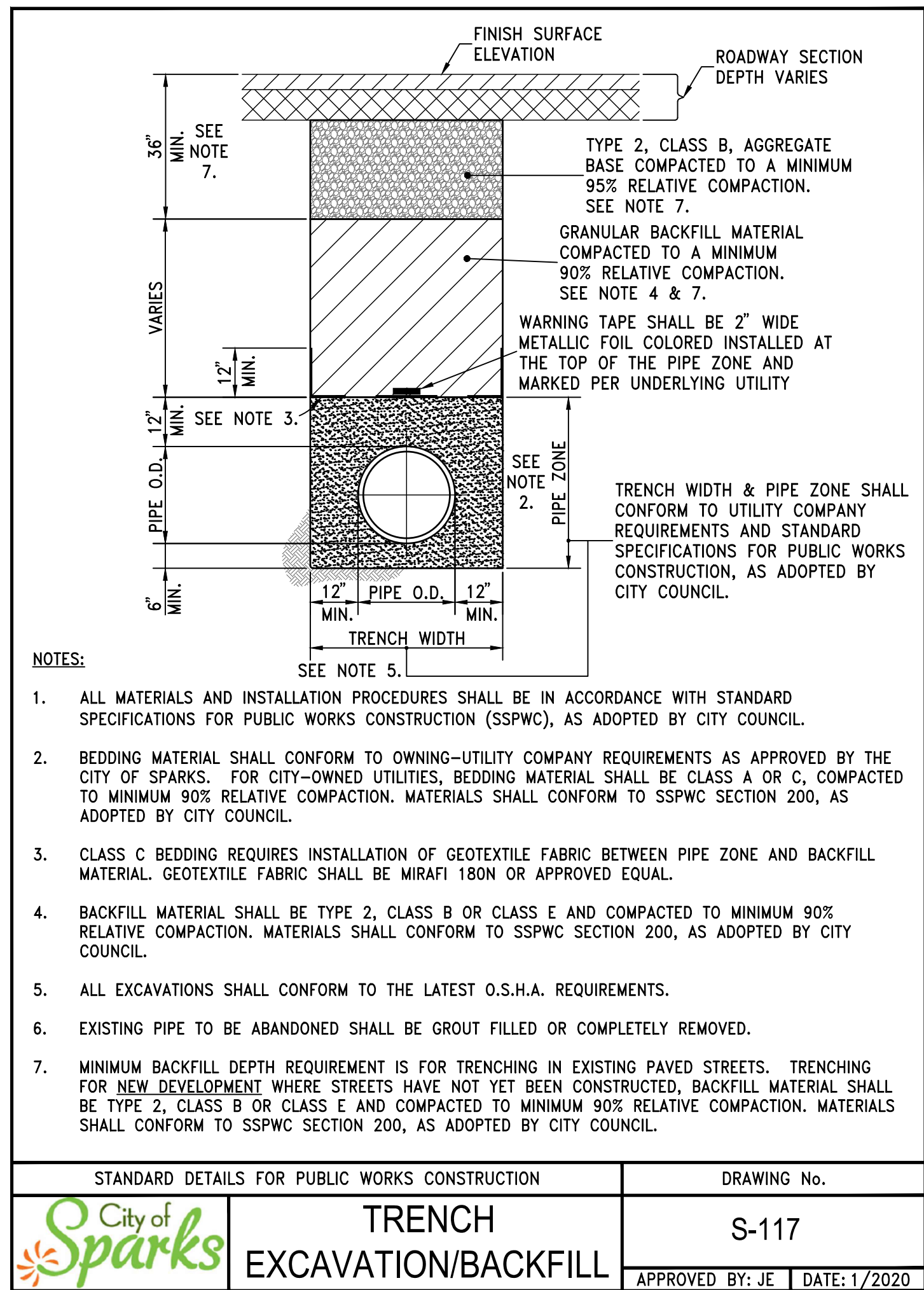
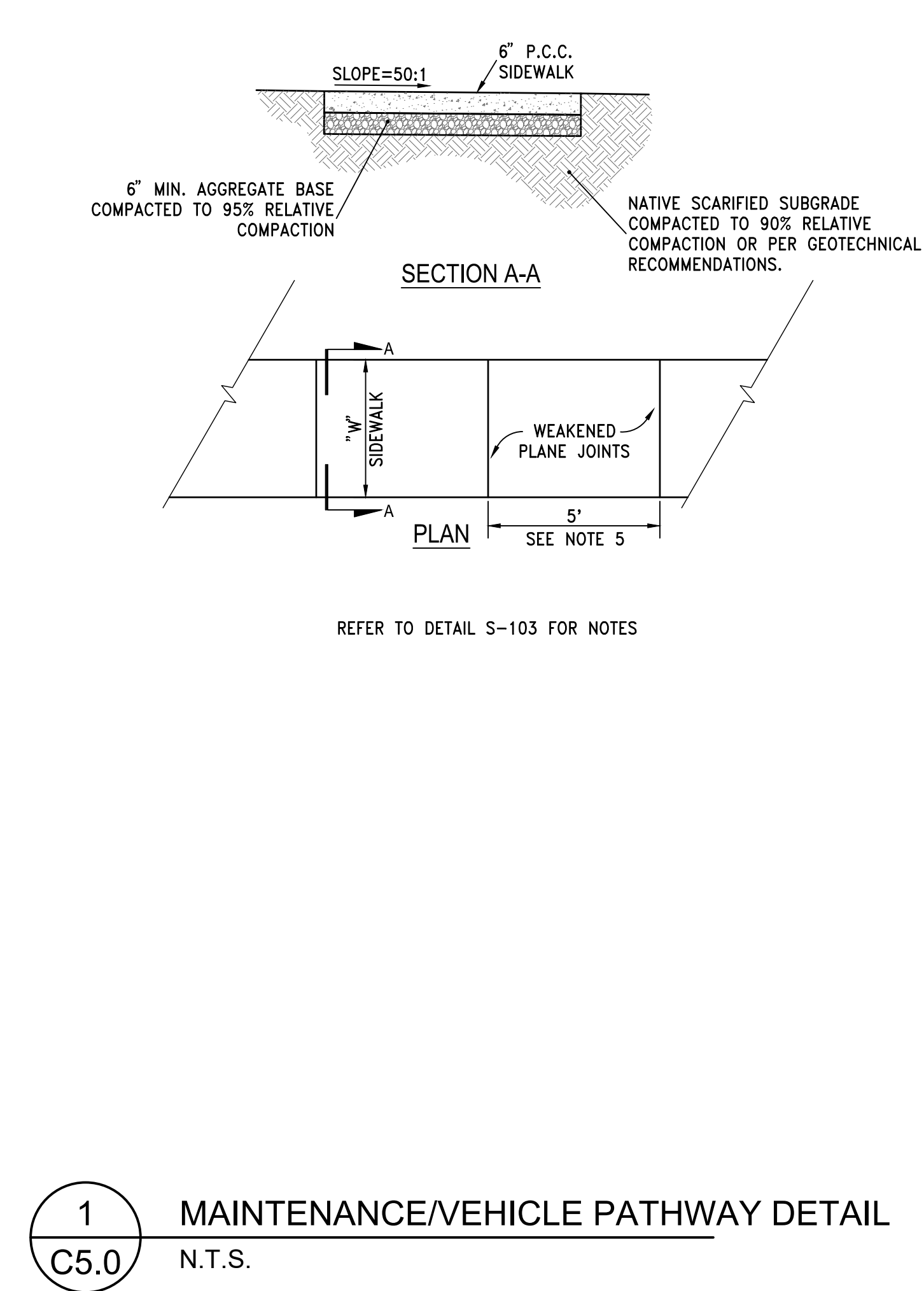
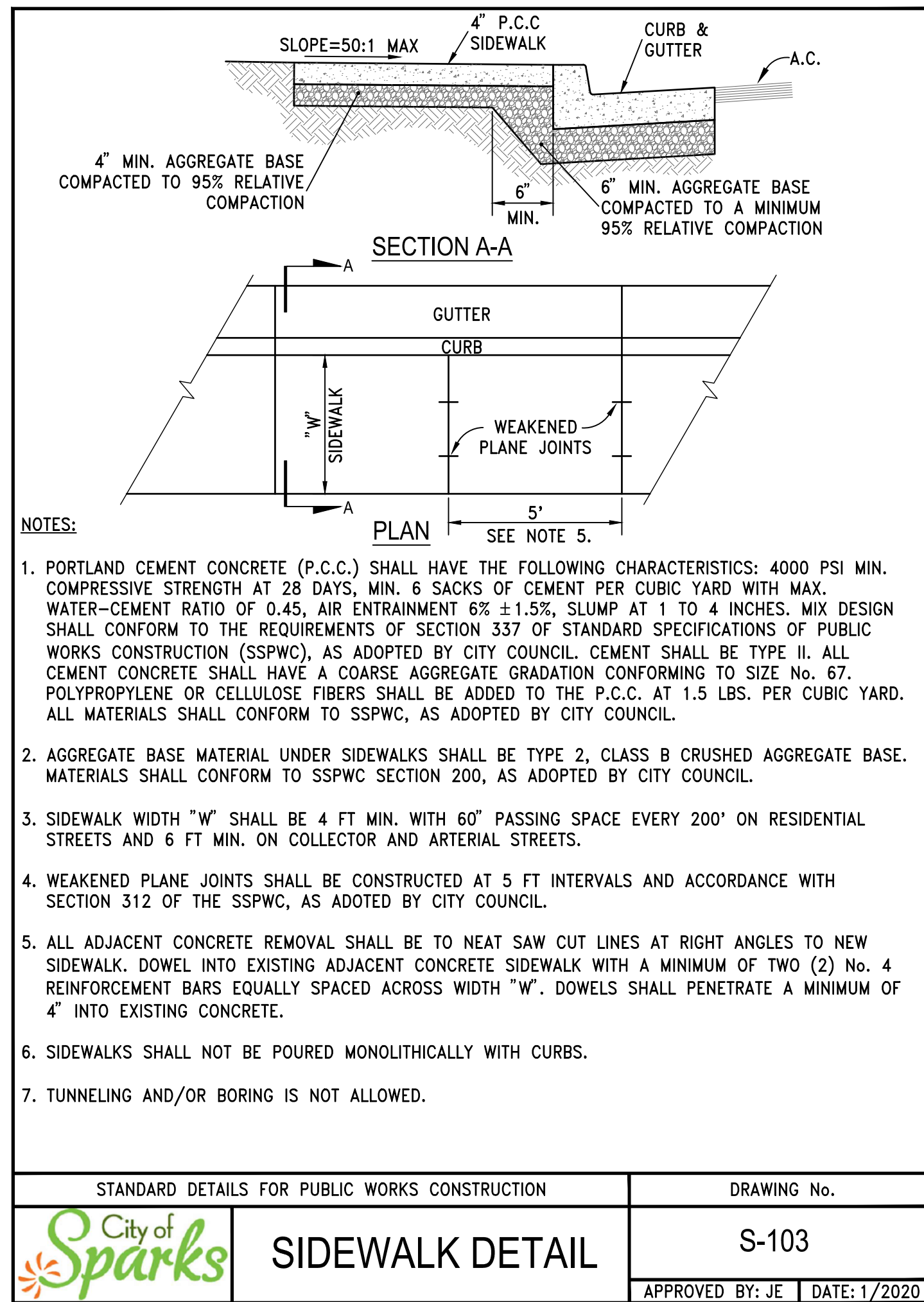
**LEGEND**

- PROTECT IN PLACE (E) CONCRETE SIDEWALK
- PROTECT IN PLACE (E) LANDSCAPING
- (P) P.C.C. MAINTENANCE / VEHICULAR PATHWAY REF. DETAIL 2, SHEET C5.0.
- (P) TURF. REF. LANDSCAPE PLANS.
- (P) P.C.C. PEDESTRIAN WALKWAY REF. DETAIL 1, SHEET C5.0.
- (P) LANDSCAPE AREA REF. LANDSCAPE PLANS.
- (P) P.C.C. DRIVEWAY APRON REF. DETAILS 5 & 6, SHEET C5.0.
- (P) RIP RAP REF. LANDSCAPE PLANS.
- PROPOSED SAWCUT
- (E) SURVEY MONUMENT - PROTECT IN PLACE



REFERENCE TRUCKEE MEADOWS CONSTRUCTION SITE BEST MANAGEMENT PRACTICES (BMP) HANDBOOK FOR DETAILS ON INSTALLATION, INSPECTION AND MAINTENANCE PROCEDURE.

WARNING: WRITTEN CONSENT IS REQUIRED OF CFA, OWNER OF DESIGNS & DRAWINGS AS INSTRUMENTS OF SERVICE, FOR DUPLICATION AND/OR DISTRIBUTION OF DOCUMENTS.



REVISIONS

DATE

MARK

PROFESSIONAL SEAL:

KATHLEEN KNIGHT  
Exp. 06-30-21  
CIVIL  
No. 28935

02/10/2021

811  
Know what's below.  
Call before you dig.

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LAND SURVEYORS  
CIVIL ENGINEERS  
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1150 CORPORATE BOULEVARD • RENO, NEVADA 89502  
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JACK REVIGLIO MEMORIAL PARK  
CITY OF SPARKS  
CIVIL DETAILS

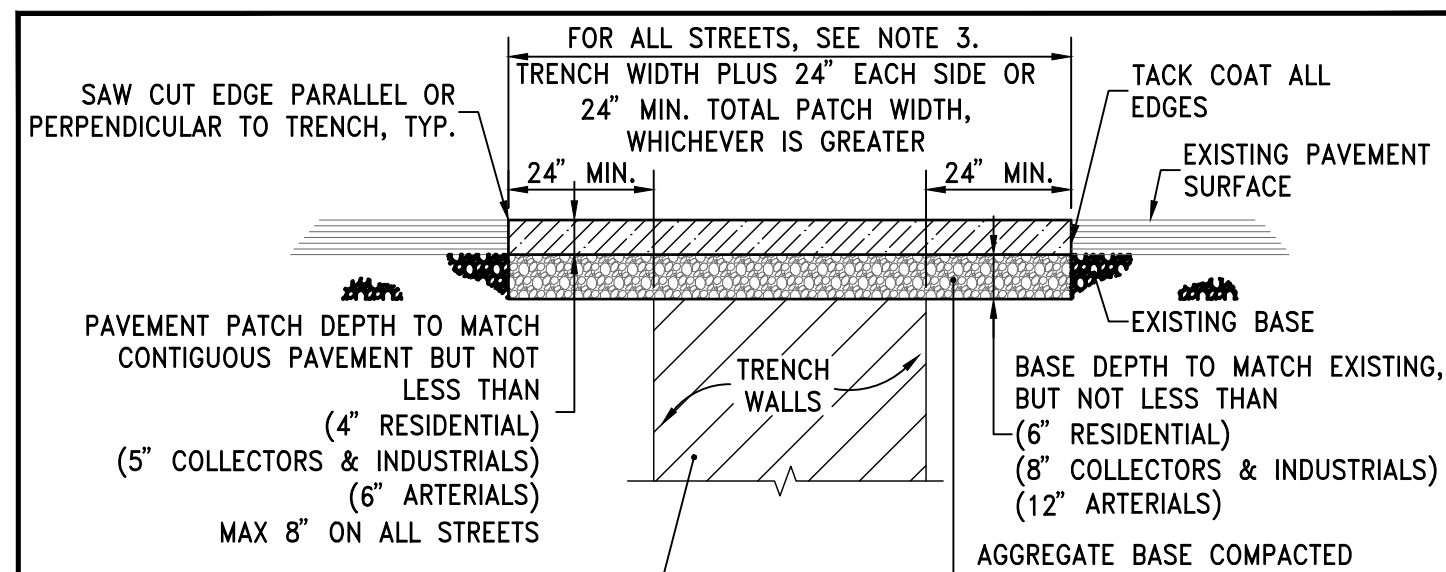
NEVADA

SPARKS

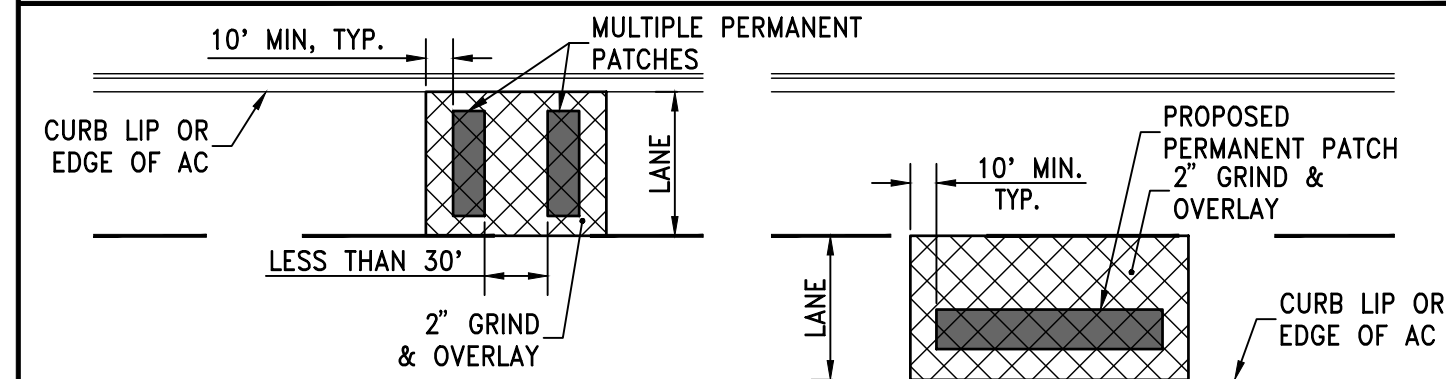
JOB NO. 18-067.00  
DESIGNED BY BEH/CH  
CHECKED BY MW  
DATE 10-31-2019

SHEET C5.0

8



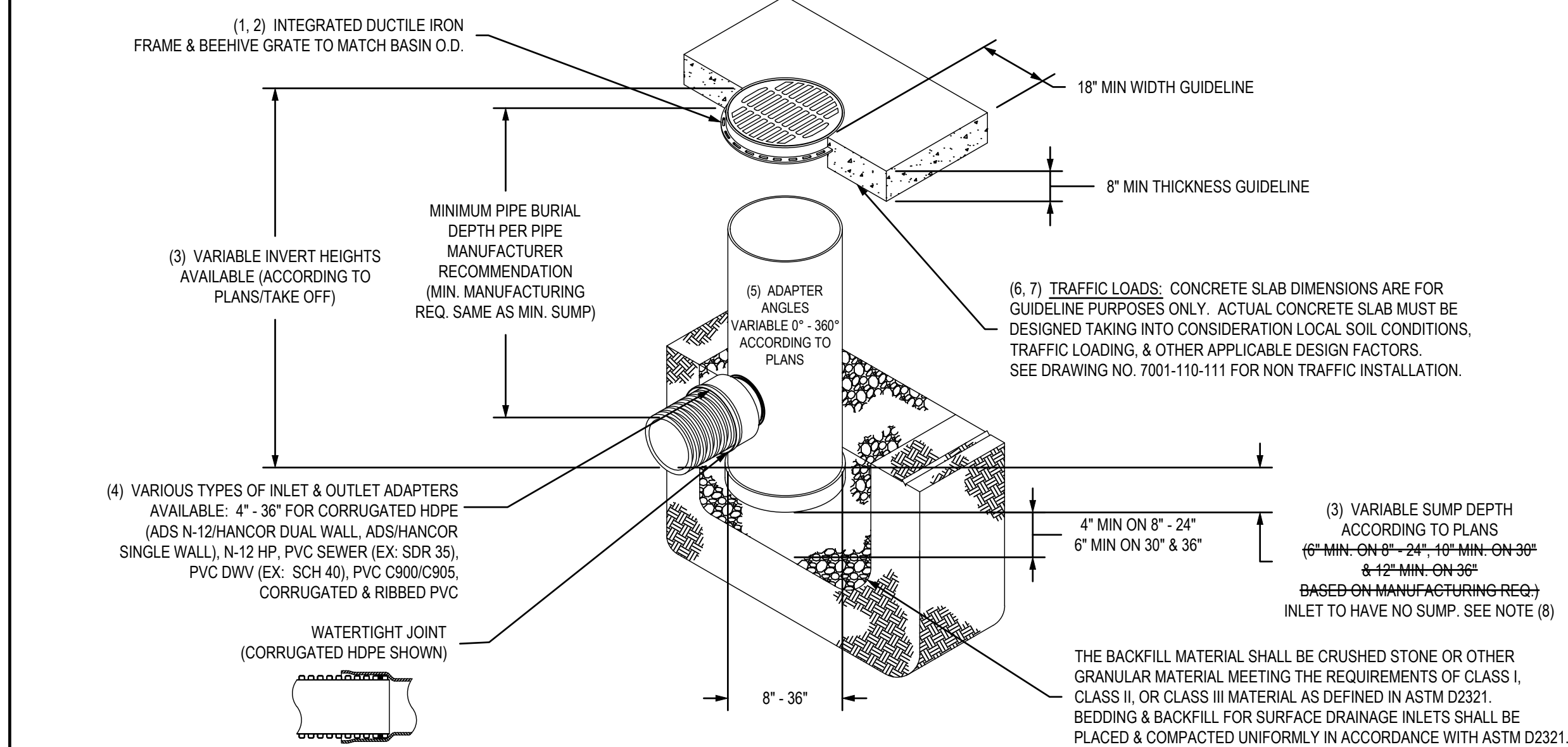
- NOTES:**
- AN EXCAVATION/ENCROACHMENT PERMIT MUST BE OBTAINED FROM CITY OF SPARKS PRIOR TO CUTTING ANY PUBLIC RIGHT-OF-WAY.
  - IF SAW CUT IS WITHIN 2 FEET OF AN EXISTING PAVEMENT EDGE OR EXISTING PAVEMENT PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
  - ALL PERMANENT PATCH REQUIREMENTS ARE MINIMUM WIDTHS ONLY AND INCLUDES ALL AREAS WHERE THE ASPHALT PAVEMENT HAS BEEN UNDERMINED. THE CITY ENGINEER MAY REQUIRE WIDER PATCH SECTIONS OR OTHERWISE ALTER THESE REQUIREMENTS.
  - AGGREGATE BASE MATERIAL UNDER BITUMINOUS PAVEMENT PATCH SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF LOOP DETECTORS, ADJUSTMENT OF UTILITIES AND SURVEY MONUMENTS TO GRADE AND INSTALLATION OF PERMANENT PAVEMENT MARKINGS.
  - FOR P.C.C. CURB REPLACEMENT, SAW CUT EXISTING PAVEMENT 18 INCHES MIN. FROM GUTTER LIP LINE, REMOVE AND REPLACE PAVEMENT TO SAW CUT EDGES. CONCRETE MAY BE POURED NEAT AGAINST EXISTING EDGE OF ASPHALT IF APPROVED BY CITY ENGINEER.



- ALL STREETS WITH PAVEMENT CONDITION INDEX (PCI) GREATER THAN 65:
- TRANSVERSE PATCHES SHALL INCLUDE A GRIND AND OVERLAY WHEREVER THERE ARE MULTIPLE PATCHES WITHIN 30 FEET OF EACH OTHER. 2\"/>
  - LONGITUDINAL PATCHES SHALL INCLUDE GRIND AND OVERLAY TO THE LANE LINES (BIKE, PARKING, OR TRAVEL). 2\"/>
  - DRIVEWAY & INTERSECTION LIMITS TO BE DETERMINED BY STREET CUT COORDINATOR.

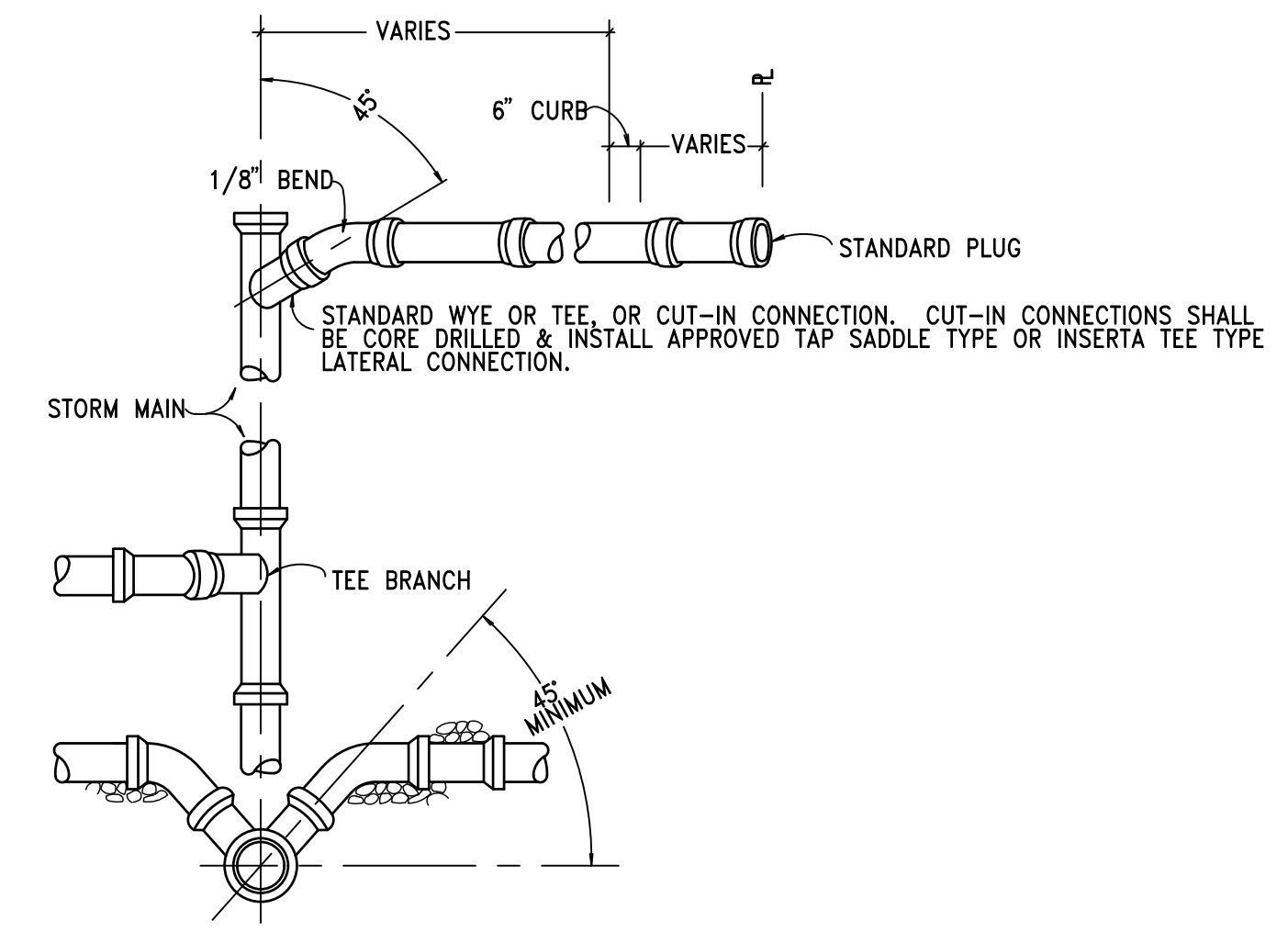
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>PERMANENT BITUMINOUS PAVEMENT PATCH</b>	<b>S-115</b>
APPROVED BY: JE	DATE: 1/2020

**NYLOPLAST DRAIN BASIN WITH BEEHIVE GRATE/DOME**



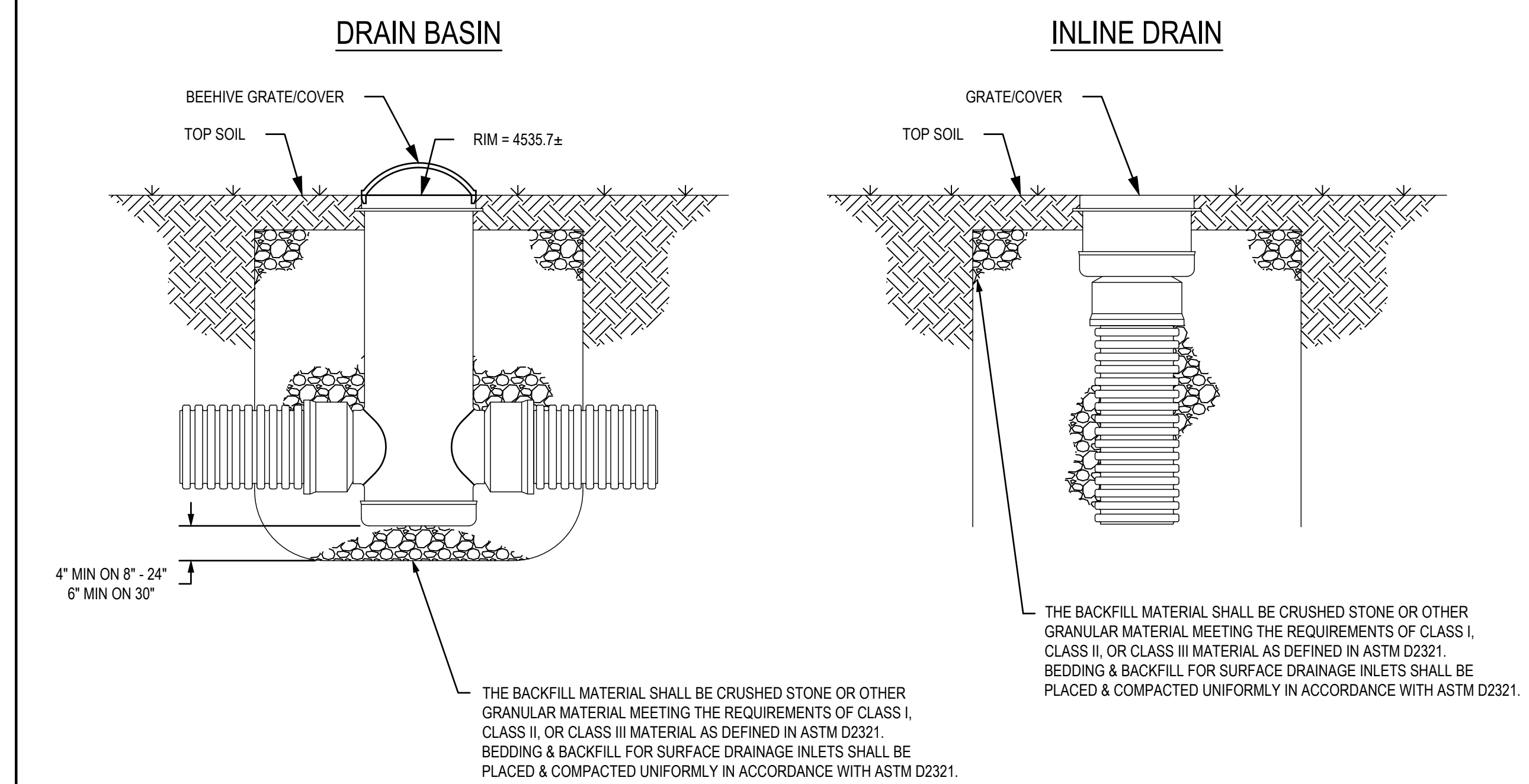
- 8\"/>
- 12\"/>
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84\"/>
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D2322 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4\"/>
- ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0\"/>
- 12\"/>
- 8\"/>
- FILL BOTTOM OF CATCH BASIN WITH CONCRETE AND SLOPE TO DRAIN IN ORDER TO ELIMINATE STANDING WATER.

1	NYLOPLAST DRAIN BASIN DETAIL
C5.1	N.T.S.



2	STROM DRAIN LATERAL
C5.1	N.T.S.

**NON TRAFFIC INSTALLATION**



THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.	DRAWN BY: CJA DATE: 9-30-99 REVISED BY: NMH DATE: 03-11-16 DWG SIZE: A SCALE: 1:25 SHEET: 1 OF 1	MATERIAL: PROJECT NO./NAME: TITLE: DWG NO.: 7001-110-111 REV: E	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------

3	NYLOPLAST NON TRAFFIC INSTALLATION
C5.1	N.T.S.

BY	
REVISIONS	
MARK	
DATE	
PROFESSIONAL SEAL:	

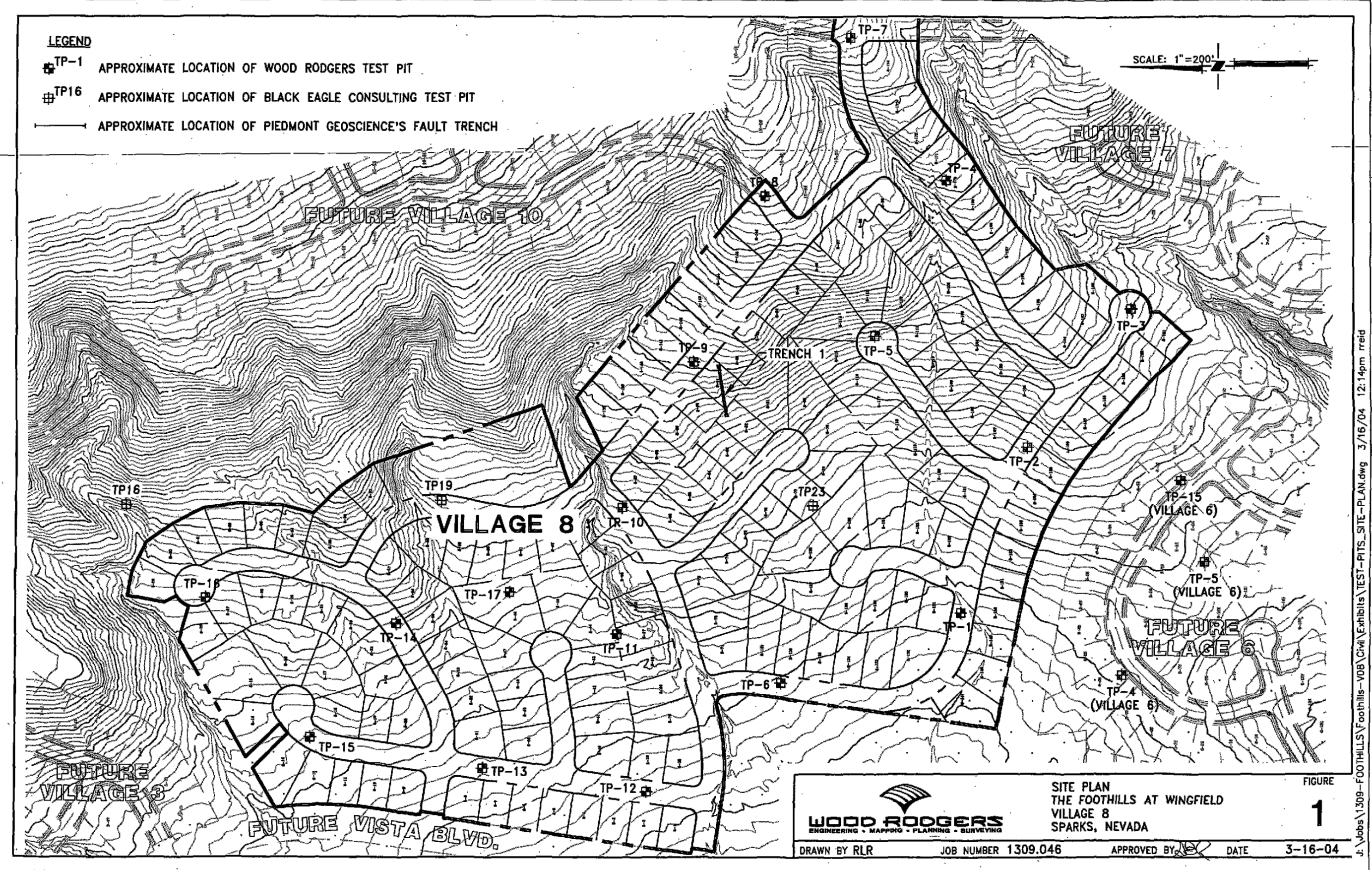
PROFESSIONAL SEAL:  
  
 02/10/2021  
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JACK REVIGLIO MEMORIAL PARK  
 CITY OF SPARKS  
**CIVIL DETAILS**  
 NEVADA  
 SPARKS

JOB NO.	18-067.00
DESIGNED BY	BEH/CH
CHECKED BY	MW
DATE	10-31-2019
SHEET	C5.1
OF	8







### TEST PIT LOG

TEST PIT NO.: TP19 DATE: 12/13/2002  
 TYPE OF HOE: Case 580E DEPTH TO GROUND WATER (ft): NE  
 LOGGED BY: DGB GROUND ELEVATION (ft): 4545

SAMPLE NO.	SAMPLE TYPE	PENETROMETER (MP)	MOISTURE (%)	PLASTICITY INDEX	DEPTH (ft)	USCS SYMBOL	LITHOLOGY	DESCRIPTION
19A	GRAB				0.0' - 0.5'	SP-SM		0.0' - 0.5': POORLY GRADED SAND with SILT and GRAVEL moist, dark brown, loose to medium dense, with estimated 5-10% non-plastic fines, 65-70% fine to medium sand, and 15-20% subrounded gravel to 3". Cobbles to 12-inch diameter comprise approximately 5-10% of the total soil mass.
19B	GRAB				0.5' - 1.8'	GM		0.5' - 1.8': CLAYEY SAND moist, reddish brown, very dense, with estimated 35-40% medium plasticity fines, 40-45% fine to medium sand, and 5-10% subangular gravel to 3". Cobbles to 6-inch diameter comprise approximately 5-10% of the total soil mass.
					1.8' - 5.5'	GM		1.8' - 5.5': SILTY GRAVEL with SAND slightly moist, light brown, very dense, cemented, with estimated 10-15% non-plastic plasticity fines, 30-40% fine to coarse sand, and 40-50% subangular gravel to 3". Cobbles to 12-inch diameter comprise approximately 35% of the total soil mass. Difficult to dig.
					5.5' - 16.0'	SC		5.5' - 16.0': SILTY SAND with GRAVEL slightly moist, tan, dense, moderately cemented, with estimated 20-25% low to medium plasticity fines, 50-60% mostly fine to coarse sand, and 20-25% subangular to angular gravel to 1-1/2".

Black Eagle Consulting, Inc.  
 1345 Capitol Blvd., Suite A  
 Reno, Nevada 89502-7140  
 (775) 359-6600

Wingfield Springs  
 750 Acre Tucker Parcel  
 Sparks, Nevada

PROJECT NO.: 0102-04-1  
 PLATE: 3s  
 SHEET 1 OF 1



BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

REVISIONS

MARK

DATE

PROFESSIONAL SEAL:  
  
 11-02-2020

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**cfa**

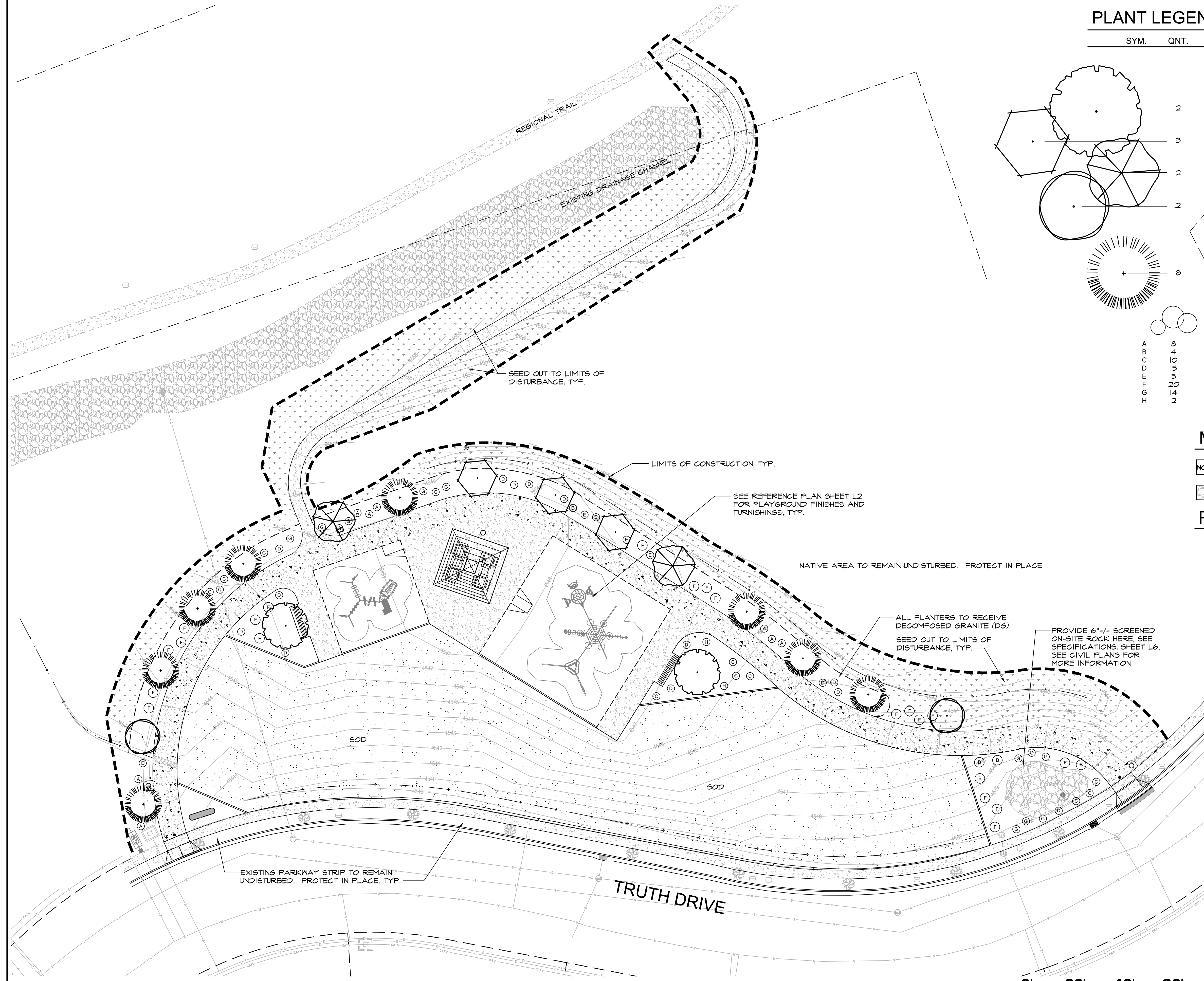
NEVADA

SPARKS

JACK REVIGLIO MEMORIAL PARK  
 CITY OF SPARKS  
**TEST PIT LOG**

JOB NO. 18-067.00  
 DESIGNED BY BEH/CH  
 CHECKED BY MW  
 DATE 10-31-2019

SHEET  
**C6.0**  
 8



### PLANT LEGEND

SYM.	QNT.	BOTANICAL NAME/Common Name	MIN. SIZE
<b>DECIDUOUS TREES</b>			
(Symbol)	2	ACER SACCHARINUM/SILVER MAPLE	2-1/2" CAL.
(Symbol)	3	PRUNUS VIRGINIANA 'CANADA RED'/CANADA RED CHOKECHERRY	2-1/2" CAL.
(Symbol)	2	PYRUS CALLERYANA 'ARISTOCRAT' ARISTOCRAT FLOWERING PEAR	2-1/2" CAL.
(Symbol)	2	TILIA CORDATA/LITTLE LEAF LINDEN	2-1/2" CAL.
<b>EVERGREEN TREE</b>			
(Symbol)	8	PINUS NEGRA/AUSTRIAN PINE	10 MIN. HT.
<b>SHRUBS &amp; ORNAMENTAL GRASSES</b>			
A	8	BERBERIS THUNBERGII 'CRIMSON PYGMY'/CRIMSON PYGMY BARBERRY	5 GAL.
B	4	PRUNUS X GIBBYANA/DWARF SAND CHERRY	5 GAL.
C	10	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'/FEATHER REED GRASS	5 GAL.
D	15	CORNUS ALBA 'SIBIRICA'/RED TWIG DOGWOOD	5 GAL.
E	5	JUNIPERUS CHINENSIS 'MONLEP'/MINT JULEP JUNIPER	5 GAL.
F	20	MISCANTHUS SINENSIS 'GRACILLIMUS'/MAIDEN GRASS	5 GAL.
G	14	RIBES AUREUM/GOLDEN CURRANT	5 GAL.
H	2	PRUNUS TOMENTOSA/NANKING CHERRY	5 GAL.

### MULCH LEGEND

(No Hatch)	DECOMPOSED GRANITE (DG)
(Rock Pattern)	ROCK-SCREENED ONSITE ROCK 6" +/-

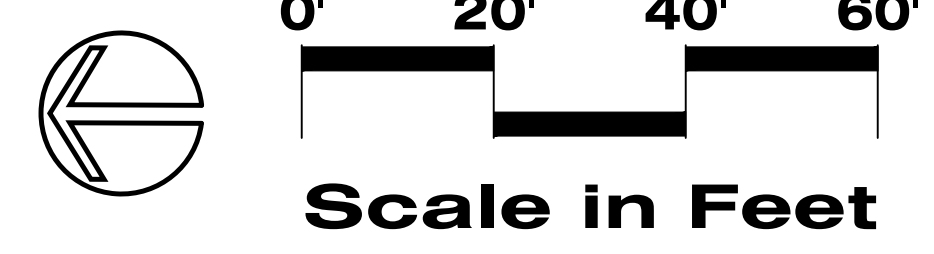
### REVEGETATION SPECIFICATIONS

- WHERE POSSIBLE, STRIP & STOCKPILE EXISTING 6" OF NATIVE SITE TOPSOIL. CONTRACTOR SHALL PROVIDE DUST CONTROL FOR STOCKPILED TOPSOIL AS REQUIRED BY REGULATORY AGENCIES.
- FOLLOWING COMPLETION OF ROUGH GRADING RE-APPLY A MINIMUM OF 6" OF STOCKPILED TOPSOIL (IF AVAILABLE) TO REVEGETATION AREAS. TOPSOIL SHALL CONSIST OF NATURAL SURFACE SOIL, FRIABLE, AND LOAMY IN CHARACTER. TOPSOIL SHALL BE FREE OF LARGE BRUSH OR STUMPS, OBJECTIONABLE WEEDS, LARGE STONES OR ROCKS (EXCEPT AS DEPICTED ON PLANS) AND SUBSTANCES TOXIC TO PLANTS.
- SCARIFY PLACED TOPSOIL TO CREATE FRIABLE CONDITIONS, EVENLY BLENDING PLACED TOPSOIL WITH TOP 6" OF SUBGRADE SOIL MATERIAL.
- REVEGETATION SEEDING IS RECOMMENDED TO TAKE PLACE IN THE FALL TO ALLOW WINTER MOISTURE TO GERMINATE SEEDS. REVEGETATION SEED BLENDS MAY BE APPLIED IN HYDROSEED SLURRY. THE APPLICATION RATE (LBS PER ACRE) IN THE FALL SHALL BE APPLIED AT A MINIMUM RATE OF 32 PLS LBS/ACRE.
- REVEGETATION SEEDING IN THE SUMMER SHALL BE APPLIED AT 125% OF THE FALL APPLICATION RATE, IMMEDIATELY FOLLOWED BY A TACKIFIER APPLICATION USING 150% OF THE MANUFACTURERS RECOMMENDED RATE
- FOLLOWING SEEDING, APPLY HYDRO-SLURRY MIX OVER SEEDED SLOPE PER MFG'S SPECIFICATIONS. SLURRY SHALL CONSIST OF THE FOLLOWING:  
 FERTILIZER: 0-10-10 @ 200 LBS/ACRE  
 TACKIFIER: M-BINDER @ 60 LBS/ACRE  
 MULCH: FIBER MULCH @ 1650 LBS/ACRE  
 SEED: REVEGETATION SEED BLEND
- CONTRACTOR SHALL MAINTAIN SEEDING UNTIL ESTABLISHED. REPAIR ANY SURFACE EROSION/RILLING UPON DISCOVERY.
- COVERAGE REQUIREMENT: NON-IRRIGATED REVEG SEEDING RELIES ON NATURAL PRECIPITATION. ADDITIONAL ANNUAL SEEDING APPLICATIONS (INCLUDING APPROPRIATE TACKIFIER TREATMENTS) MAY BE REQUIRED TO INSURE SUCCESSFUL GERMINATION AND ESTABLISHMENT. FURTHER APPLICATIONS WILL BE REQUIRED UNTIL COVERAGE REQUIREMENTS (CONSISTENT WITH NON-DISTURBED NATURAL CONDITIONS) ARE ACHIEVED AND ACCEPTED BY THE REVIEW AGENCY.

#### DRYLAND (NON-IRRIGATED) SEED BLEND

SPECIES	PLS #/ACRE
<b>Grasses</b>	
Wheatgrass streambank	4.00
Bluegrass sandberg	3.00
Wildrye Great Basin	2.00
Fescue sheep	3.00
Indian ricegrass	5.00
<b>Shrubs</b>	
Sagebrush Wyoming	.50
Rabbitbrush rubber	.50
Saltbush fourwing	2.00
Mormon tea Green	.50
Bitterbrush	1.00
Spry hopsage	.50
Desert Peach	1.00
<b>Flowers</b>	
Dryland aggressive blend	2.00
<b>Nurse crop</b>	
Ryegrass annual	6.00
Total PLS #/acre:	31.00

SEED AVAILABLE FROM COMSTOCK SEED, MINDEN NV



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 the landscape architecture studio

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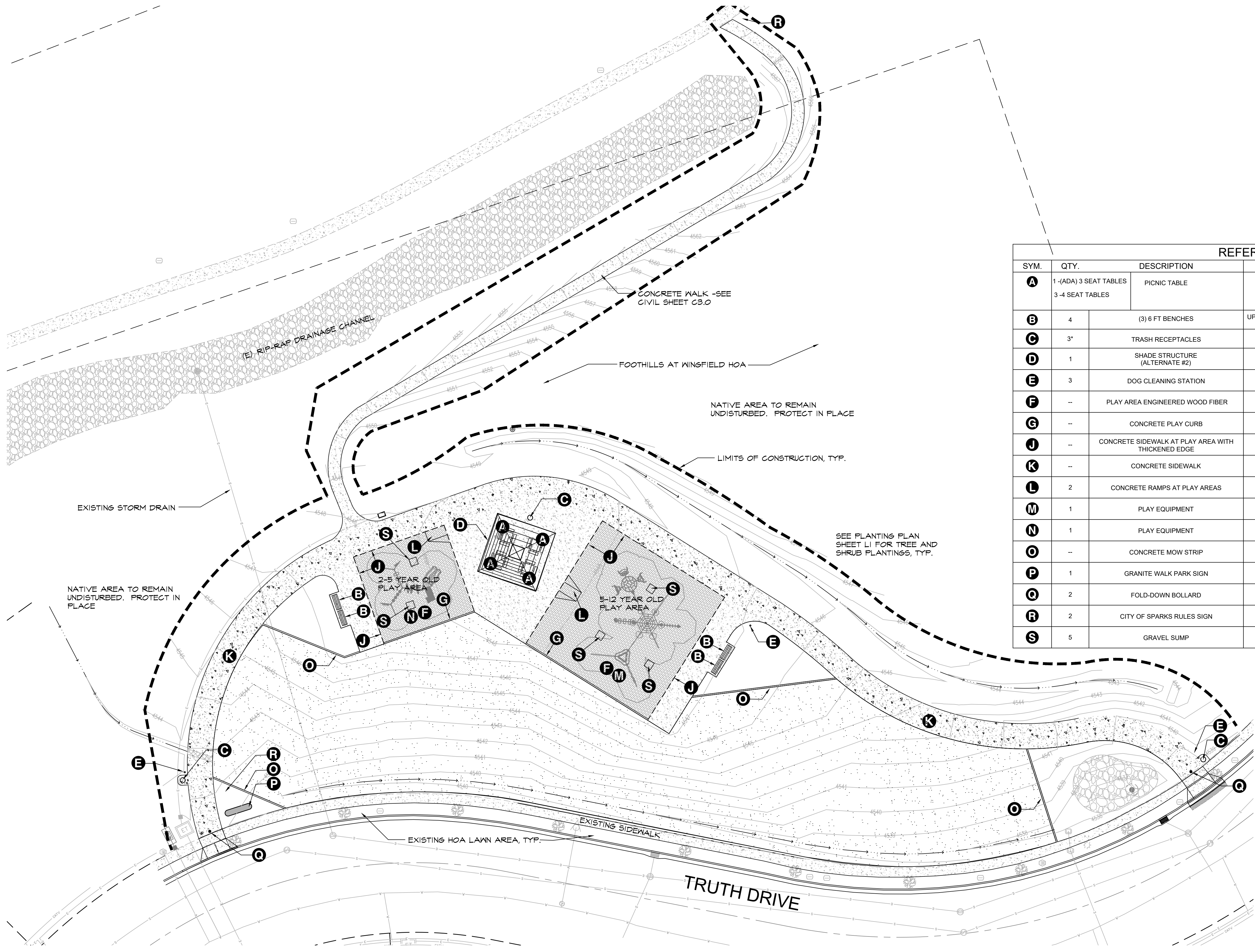
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**BID/CONSTRUCTION SET PLANTING PLAN**  
**JACK REVIGLIO MEMORIAL PARK**  
 CITY OF SPARKS

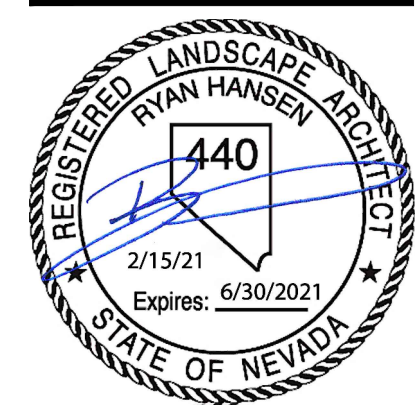
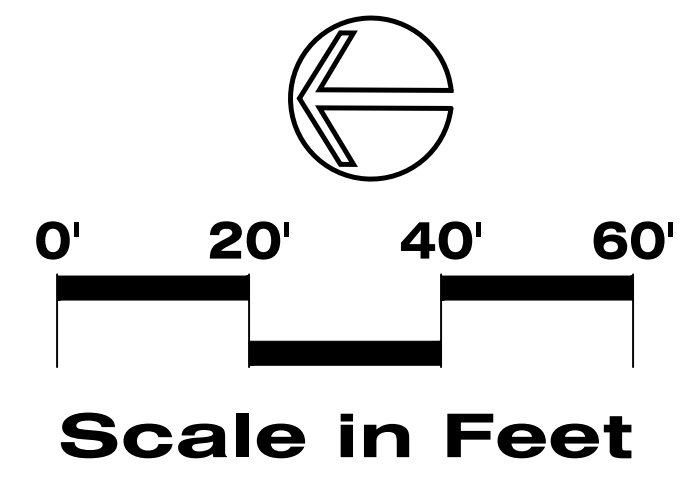
Washoe County  
 Sparks

No.	Revision Date

LA No. 251-SOT-06-18  
 Designed: DP  
 Drawn: LE  
 Checked: DP  
 Date: 10/30/18

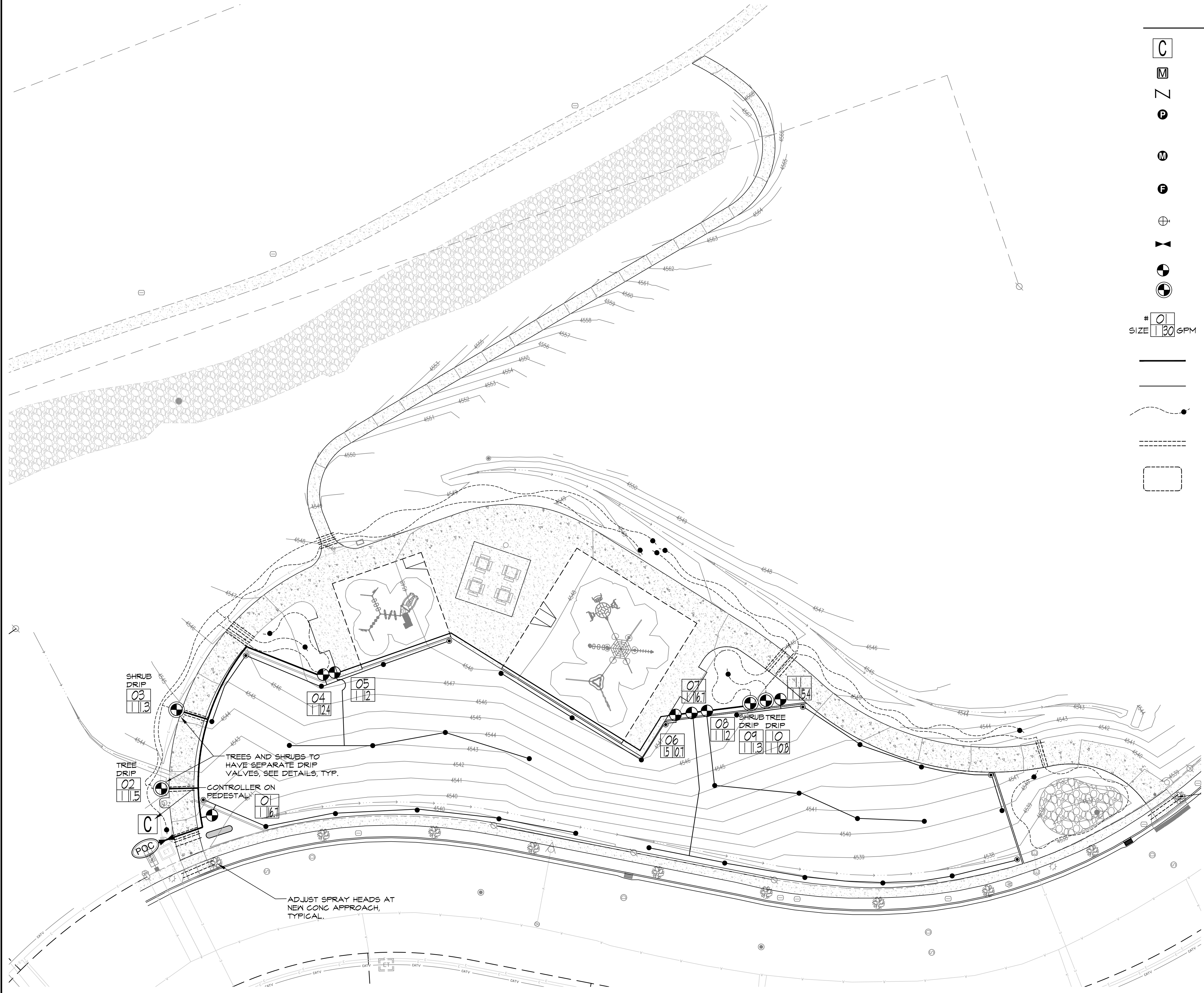


REFERENCE CHART				
SYM.	QTY.	DESCRIPTION	MFG/MODEL NUMBER	COLOR
A	1-(ADA) 3 SEAT TABLES 3-4 SEAT TABLES	PICNIC TABLE	UPBEAT SITE FURNISHINGS - 1-EXPANDED STEEL 3 SEAT ADA TABLE # D2016 3-EXPANDED STEEL 4 SEAT TABLE #F2015	BROWN SEAT AND BACK BLACK FRAME/POST
B	4	(3) 6 FT BENCHES	UPBEAT SITE FURNISHINGS - VICTORY 6' EXPANDED STEEL BENCH SM # D1062	BROWN SEAT AND BACK BLACK FRAME/POST
C	3*	TRASH RECEPTACLES	CITY OF SPARKS TO PROVIDE AND INSTALL	-
D	1	SHADE STRUCTURE (ALTERNATE #2)	RCP SHELTERS, INC. STEEL SHADE STRUCTURE SLF-SG24-04	TBD
E	3	DOG CLEANING STATION	POOPY POUCH PP-DSP-3R200	GREEN
F	--	PLAY AREA ENGINEERED WOOD FIBER	PER DETAIL SHEET	-
G	--	CONCRETE PLAY CURB	PER DETAIL 11/L15	FLOAT FINISH
J	--	CONCRETE SIDEWALK AT PLAY AREA WITH THICKENED EDGE	PER DETAIL 10/L15	-
K	--	CONCRETE SIDEWALK	PER CIVIL DETAILS	-
L	2	CONCRETE RAMPS AT PLAY AREAS	PER DETAIL 12/L15	-
M	1	PLAY EQUIPMENT	SELECTED AND PURCHASED BY CITY COORDINATE WITH PROJECT MANAGER	-
N	1	PLAY EQUIPMENT	SELECTED AND PURCHASED BY CITY COORDINATE WITH PROJECT MANAGER	-
O	--	CONCRETE MOW STRIP	PER DETAIL 8/L15	-
P	1	GRANITE WALK PARK SIGN	STONEHENGE SIGNS, INC. (BY OTHERS)	-
Q	2	FOLD-DOWN BOLLARD	TRAFFICGUARD DOUBLE POST HINGED BOLLARD	SAFETY YELLOW
R	2	CITY OF SPARKS RULES SIGN	SUPPLIED BY CITY, INSTALLED BY CONTRACTOR ON TRAFFIC RATED UNISTRUT COORDINATE LOCATION WITH PROJECT MANAGER	-
S	5	GRAVEL SUMP	PER DETAIL 13/L15	-



**BID/CONSTRUCTION SET REFERENCE PLAN**  
**JACK REVIGLIO MEMORIAL PARK**  
 CITY OF SPARKS

No.	Revision Date



# IRRIGATION LEGEND

- C** IRRIGATION CONTROL CLOCK; RAINBIRD ESP-LXME/F CONTROLLER WITH CELL CARD, W/ RAINBIRD ANEMOMETER WIND SENSOR. INSTALL CLOCK AND SENSOR PER MFG'S SPECIFICATIONS.
- M** 1-1/2" WATER METER - VERIFY SIZE AND LOCATION PER CIVIL DWGS.
- Z** 1-1/2" REDUCED PRESSURE TYPE BACKFLOW PREVENTER; WILKENS 915XL (OAE). INSTALL PER DETAIL(S).
- P** IN-LINE PRESSURE REGULATOR; WILKENS 500 SERIES (OAE). INSTALL IF AVAILABLE WATER PRESSURE EXCEEDS 80 PSI. SIZE TO MATCH MAINLINE. INSTALL AS NEEDED ALONG MAINLINE TO MAINTAIN MAXIMUM SYSTEM OPERATING PRESSURE OF 80 PSI.
- M** MASTER VALVE  
• BUCKNER SUPERIOR 3300 NORMALLY OPEN W/ "NO MINIMUM FLOW FEATURE". AVAILABLE IN SIZES 1-1/2" TO 3"
- F** RAINBIRD FLOW SENSOR AND TRANSMITTERS - SIZE AND INSTALLATION PER MFG'S SPECIFICATIONS.
- $\oplus$  MANUAL DRAIN VALVE; 3/4" BRASS GATE VALVE. (GRINNELL OR OAE) INSTALL AT ALL LOW POINTS ALONG MAINLINE
- $\times$  BRASS GATE VALVE; GRINNELL (OAE) FOR MAINLINE ISOLATION. SAME SIZE AS MAINLINE.
- $\odot$  SPRAY VALVE; HUNTER IGV. SIZE PER PLAN.
- $\odot$  DRIP VALVE ASSEMBLY; HUNTER IGV COMMERCIAL WIDE FLOW DRIP KIT
- #  $\frac{01}{130}$  VALVE I.D. - STATION #, VALVE SIZE, AND APPROX. G.P.M.
- 2" MAINLINE; ALL MAINLINES SHALL BE SCH. 40 PVC. INSTALL ALL MAINLINES AT 24" MINIMUM DEPTH. SIZE PER PLAN.
- LATERAL PIPES; SCH. 40 PVC LATERAL - SIZE PER CHART. INSTALL AT 18" MINIMUM DEPTH. (1" FOR DRIP, SIZE PER CHART FOR SPRAY).
- - - DRIP DISTRIBUTION TUBING; SEE DETAIL
- - - SLEEVES; ALL IRRIGATION SLEEVES UNDER STREETS AND DRIVEWAYS SHALL BE 4" MINIMUM SCH. 40 PVC. SLEEVES FOR DRIP TUBING UNDER SIDEWALKS MAY BE 2" MINIMUM SCH. 40. PROVIDE ONE SLEEVE PER PIPE AND ONE SLEEVE FOR WIRING.
- VALVE BOXES (NOT SHOWN); ALL VALVES SHALL BE LOCATED IN RAINBIRD PVB PROFESSIONAL SERIES VALVE BOXES PER DETAILS.

## EMITTER SCHEDULE

DECIDUOUS TREES; SEE DETAIL  
 EVERGREEN TREES; SEE DETAIL  
 #5 AND #1 SHRUBS; (2) RAINBIRD XERI-BUG | 6GPH PRESSURE COMPENSATING EMITTERS  
 GROUND COVER/PERENNIALS; (1) RAINBIRD XERI-BUG | 6GPH PRESSURE COMPENSATING EMITTER.

## SPRINKLER HEADS

CONTRACTOR SHALL SELECT SPECIFIC ARC AND NOZZLE AS REQUIRED FOR OPTIMUM SPRAY COVERAGE.

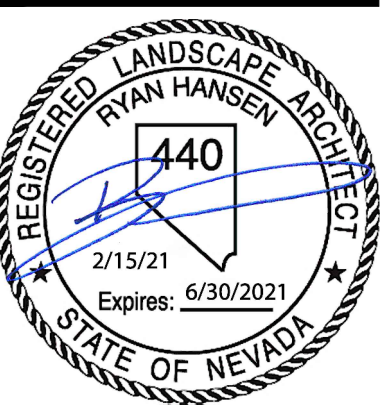
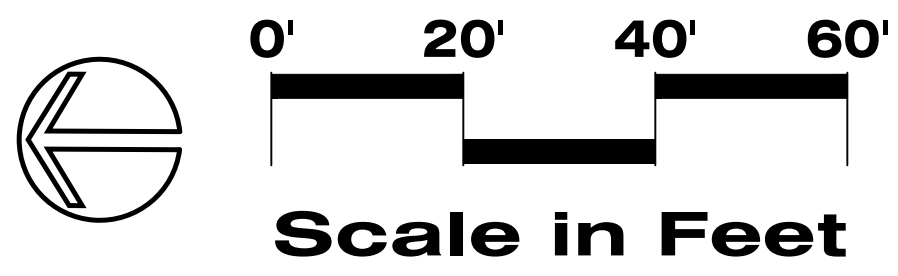
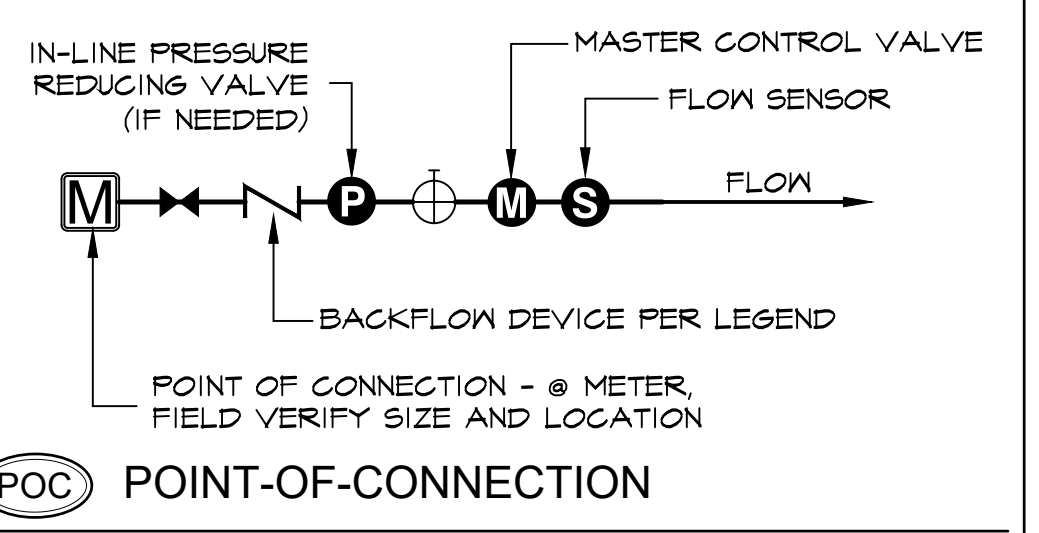
- SYM SPRINKLER HEAD DESCRIPTION**
- HUNTER 1-20 PRB, 33' Rad. @45 PSI (1.70 GPM) W/ 2.0 BLUE NOZZLE
  - HUNTER 1-20 PRB, 37' Rad. @45 PSI (3.0 GPM) W/ 3.0 BLUE NOZZLE

## DESIGN PRESSURE NOTE:

ASSUMED AVAILABLE WATER PRESSURE AT P.O.C. IS 50-60 PSI. ASSUMED FLOW IS 30 GPM @ 5 FPS. CONTRACTOR TO VERIFY PRIOR TO SYSTEM INSTALLATION. FUTURE PRESSURES MAY VARY DUE TO NEW DEVELOPMENT AND/OR OTHER UNFORESEEN CIRCUMSTANCES. LANDSCAPE ARCHITECT SHALL BEAR NO RESPONSIBILITY FOR FUTURE DEVIATIONS IN PRESSURE AND ANY RESULTING EFFECTS ON THE PERFORMANCE OF THE IRRIGATION SYSTEM.

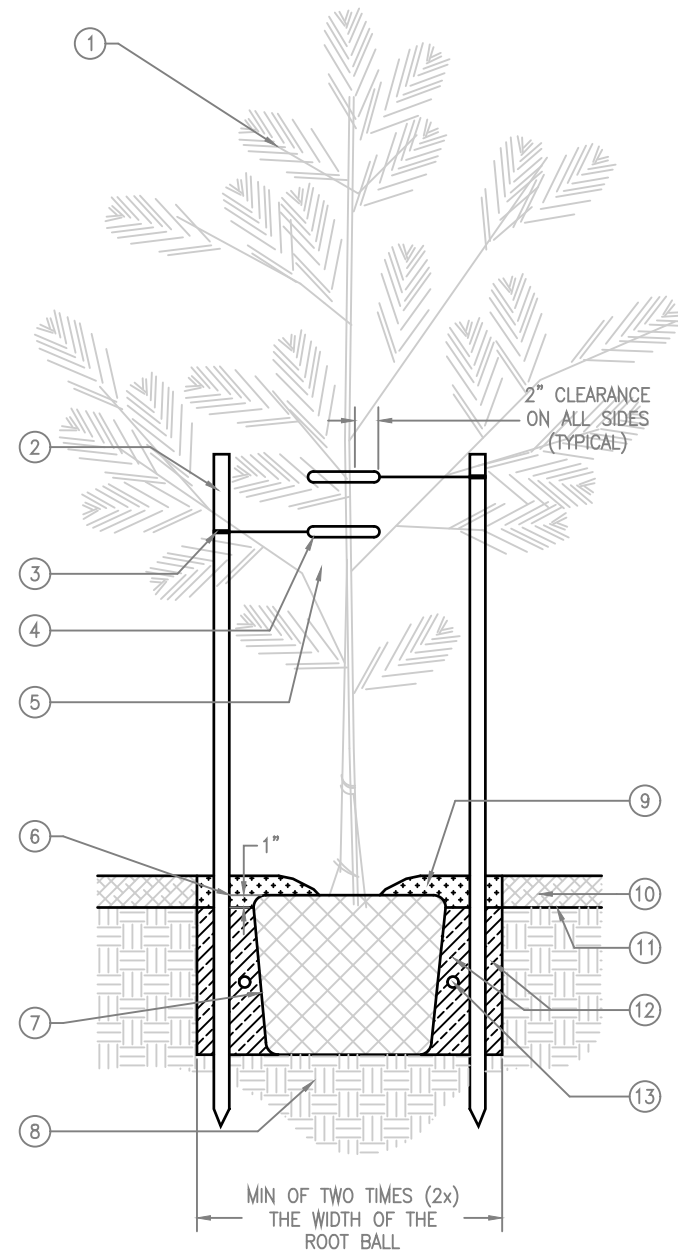
IRRIGATION MAINLINES ARE SHOWN IN STREET/PAVED AREAS FOR GRAPHIC CLARITY ONLY. WHERE POSSIBLE, ALL IRRIGATION COMPONENTS SHALL BE LOCATED IN PLANTING BEDS.

PIPE SIZE	FLOW RATE
3/4" SCH 40	1-8 GPM
1" SCH 40	9-11 GPM
1-1/4" SCH 40	12-22 GPM
1-1/2" SCH 40	23-30 GPM
2" SCH 40	31-50 GPM
2-1/2" SCH 40	51-70 GPM
3" SCH 40	71-110 GPM

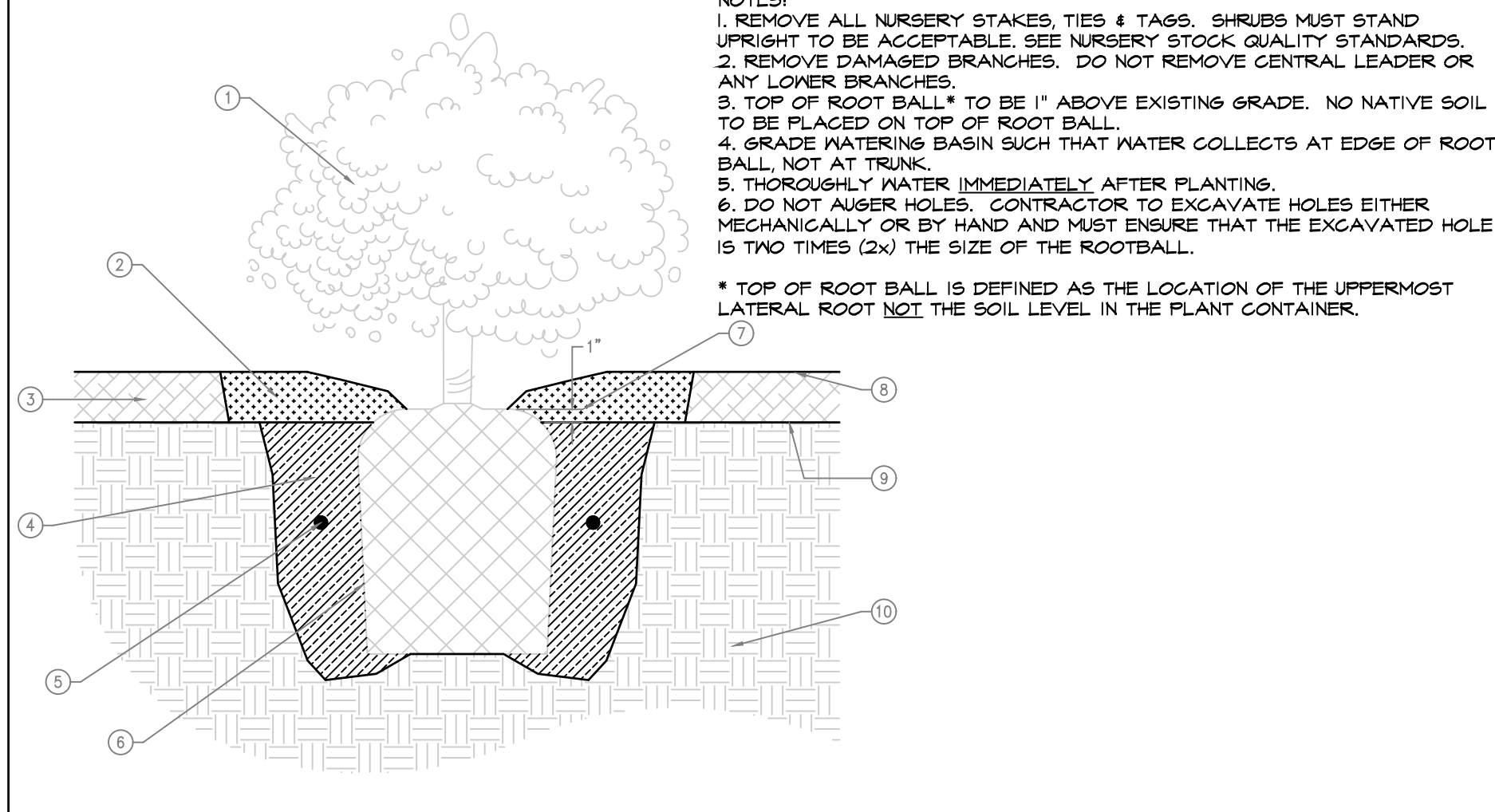
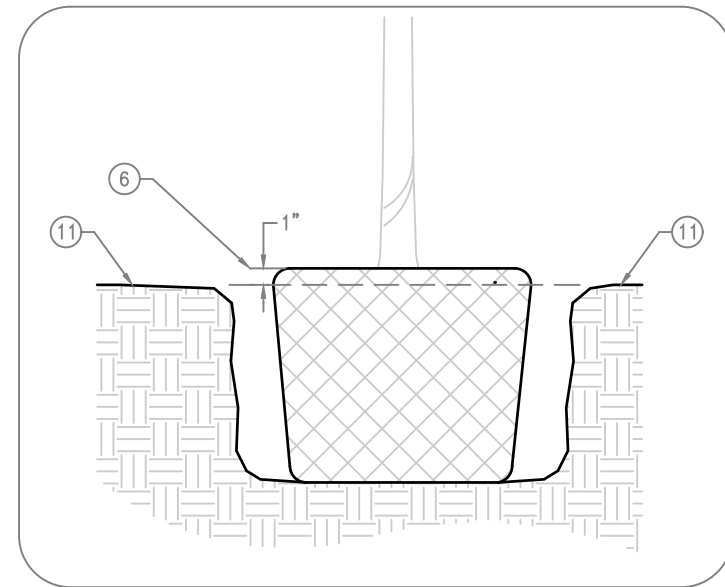


No.	Revision Date

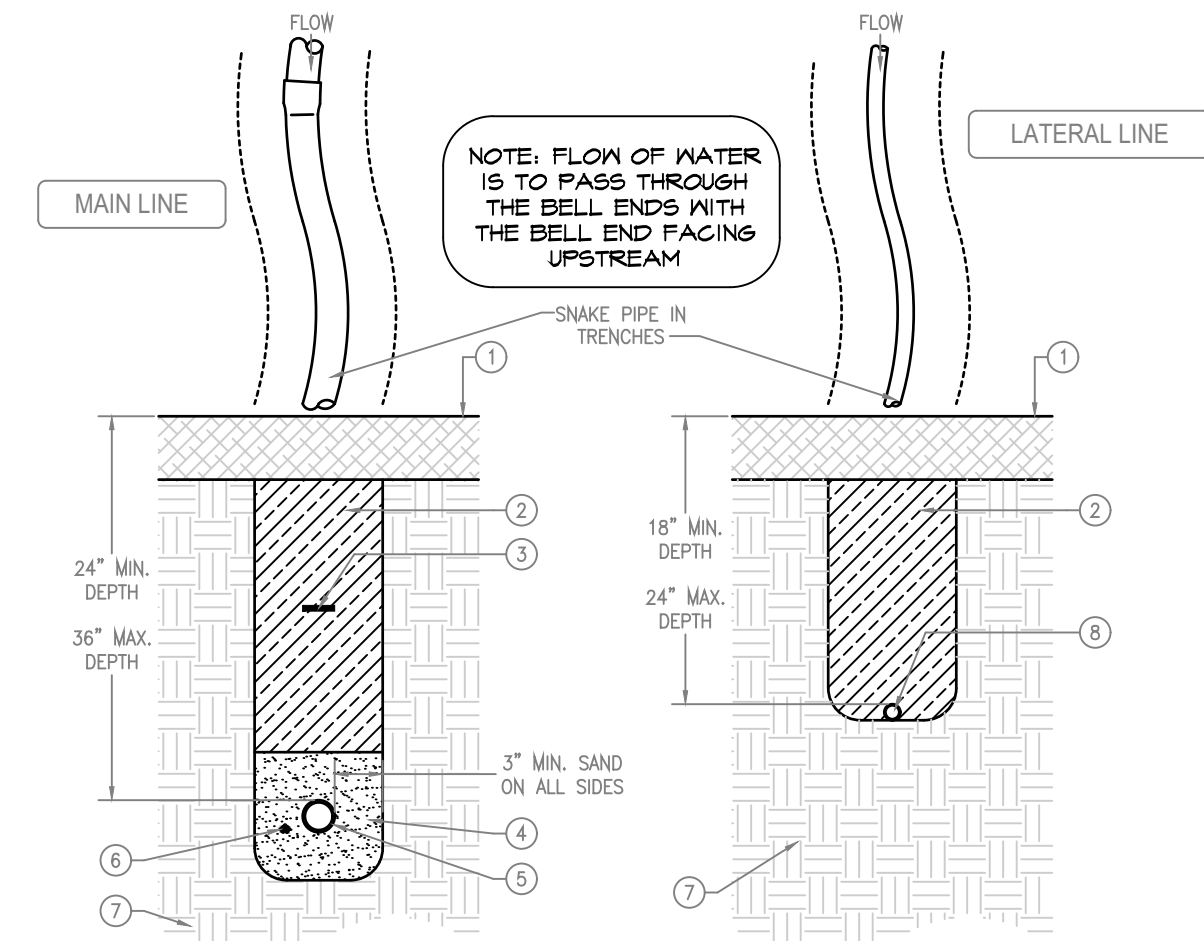
LA No. 251-SOT-06-18  
 Designed: DD  
 Drawn: LE  
 Checked: DD  
 Date: 10/30/18



NOTES:  
 1. REMOVE ALL NURSERY STAKES, TIES & TAGS. TREES MUST STAND UPRIGHT TO BE ACCEPTABLE. SEE NURSERY STOCK QUALITY STANDARDS.  
 2. REMOVE DAMAGED BRANCHES. DO NOT REMOVE CENTRAL LEADER OR ANY LOWER BRANCHES.  
 3. TOP OF ROOT BALL\* TO BE 1" ABOVE EXISTING GRADE. NO NATIVE SOIL TO BE PLACED ON TOP OF ROOT BALL.  
 4. GRADE WATERING BASIN SUCH THAT WATER COLLECTS AT EDGE OF ROOT BALL, NOT AT TRUNK.  
 5. THOROUGHLY WATER IMMEDIATELY AFTER PLANTING.  
 6. ORIENT GRAFT UNION TO FACE NORTH.  
 \* TOP OF ROOT BALL IS DEFINED AS THE LOCATION OF THE UPPERMOST LATERAL ROOT NOT THE SOIL LEVEL IN THE PLANT CONTAINER.



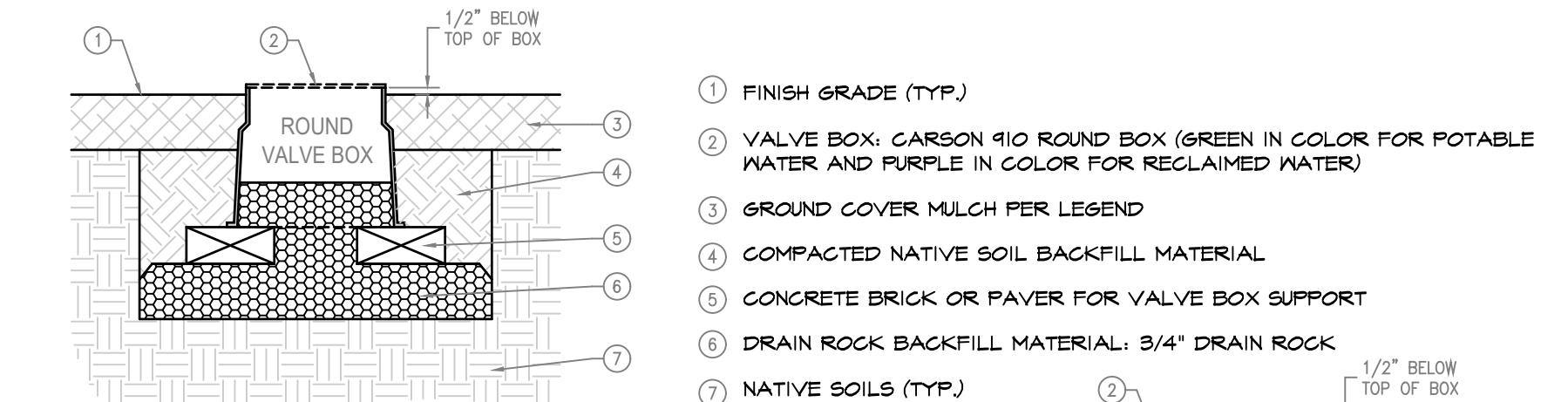
NOTES:  
 1. REMOVE ALL NURSERY STAKES, TIES & TAGS. SHRUBS MUST STAND UPRIGHT TO BE ACCEPTABLE. SEE NURSERY STOCK QUALITY STANDARDS.  
 2. REMOVE DAMAGED BRANCHES. DO NOT REMOVE CENTRAL LEADER OR ANY LOWER BRANCHES.  
 3. TOP OF ROOT BALL\* TO BE 1" ABOVE EXISTING GRADE. NO NATIVE SOIL TO BE PLACED ON TOP OF ROOT BALL.  
 4. GRADE WATERING BASIN SUCH THAT WATER COLLECTS AT EDGE OF ROOT BALL, NOT AT TRUNK.  
 5. THOROUGHLY WATER IMMEDIATELY AFTER PLANTING.  
 6. DO NOT AUGER HOLES. CONTRACTOR TO EXCAVATE HOLES EITHER MECHANICALLY OR BY HAND AND MUST ENSURE THAT THE EXCAVATED HOLE IS TWO TIMES (2X) THE SIZE OF THE ROOTBALL.  
 \* TOP OF ROOT BALL IS DEFINED AS THE LOCATION OF THE UPPERMOST LATERAL ROOT NOT THE SOIL LEVEL IN THE PLANT CONTAINER.



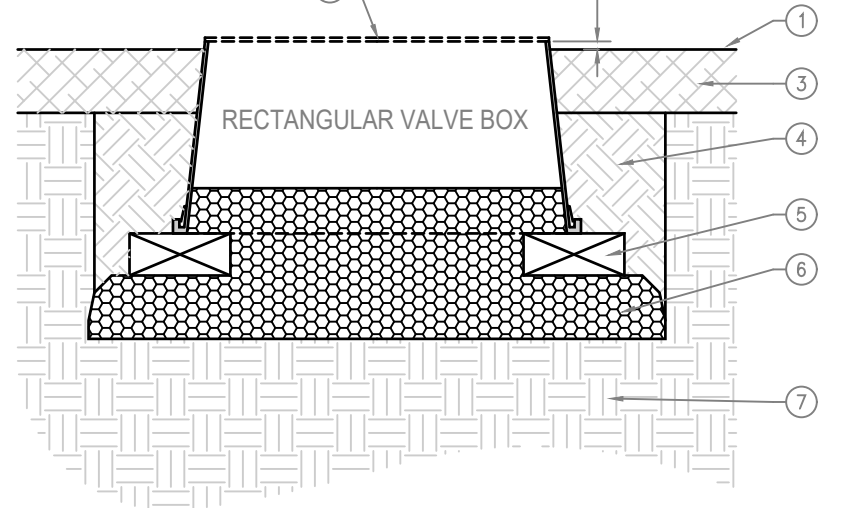
NOTES:  
 1. FINISH GRADE (TYPICAL) GROUND COVER MULCH PER LEGEND  
 2. BACKFILL TO BE WATERED DOWN NATIVE SOIL. REMOVE ROCKS 1.5" DIAMETER IN SIZE OR LARGER AND LEGALLY DISPOSE OF SPILLS. COMPACT TRENCHES IN 4" TO 6" LIFTS TO A 90% RELATIVE COMPACTION.  
 3. CONTINUOUS DETECTABLE WARNING TAPE INSTALLED 12" MIN. ABOVE MAIN LINE AND CONTROL WIRES.  
 4. SPFCO SAND BACKFILL MATERIAL. INSTALL MIN. 3" ON ALL SIDES OF PIPE AND BOTTOM OF TRENCH.  
 5. MAIN LINE PER LEGEND. INSTALL 24" MIN TO 36" MAX DEPTH FROM FINISH GRADE TO TOP OF PIPE. SNAKE ALL PIPING IN TRENCHES.  
 6. CONTROL WIRE: TO BE BURIED SIDE BY SIDE AND 1" MIN AND 3" MAX. DISTANCE FROM MAIN LINE PIPING. TAPE WIRES TOGETHER USING ELECTRICAL TAPE EVERY 15" ON CENTER. DO NOT INSTALL WIRE UNDER THE MAIN LINE PIPE AND DO NOT TAPE THE WIRE TO THE MAIN LINE PIPING.  
 7. NATIVE SOIL.  
 8. LATERAL LINE PER LEGEND. INSTALL 18" MIN TO 24" MAX DEPTH FROM FINISH GRADE TO TOP OF PIPE. SNAKE ALL PIPING IN TRENCHES.

**1 EVERGREEN TREE PLANTING**

**2 SHRUB PLANTING**

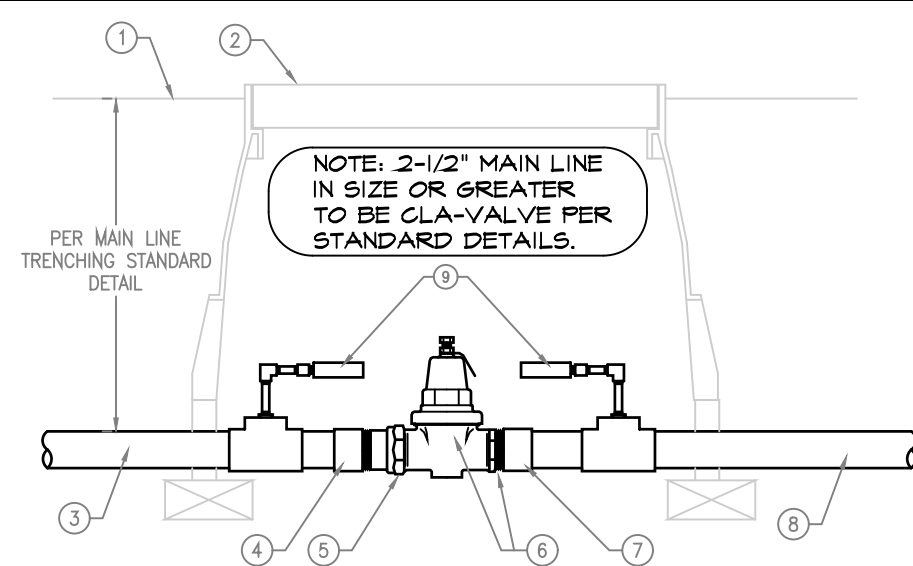


1 FINISH GRADE (TYP)  
 2 VALVE BOX: CARSON 1220 RECTANGULAR BOX (GREEN IN COLOR FOR POTABLE WATER AND PURPLE IN COLOR FOR RECLAIMED WATER)  
 3 GROUND COVER MULCH PER LEGEND  
 4 COMPACTED NATIVE SOIL BACKFILL MATERIAL  
 5 CONCRETE BRICK OR PAVER FOR VALVE BOX SUPPORT  
 6 DRAIN ROCK BACKFILL MATERIAL: 3/4" DRAIN ROCK  
 7 NATIVE SOILS (TYP)



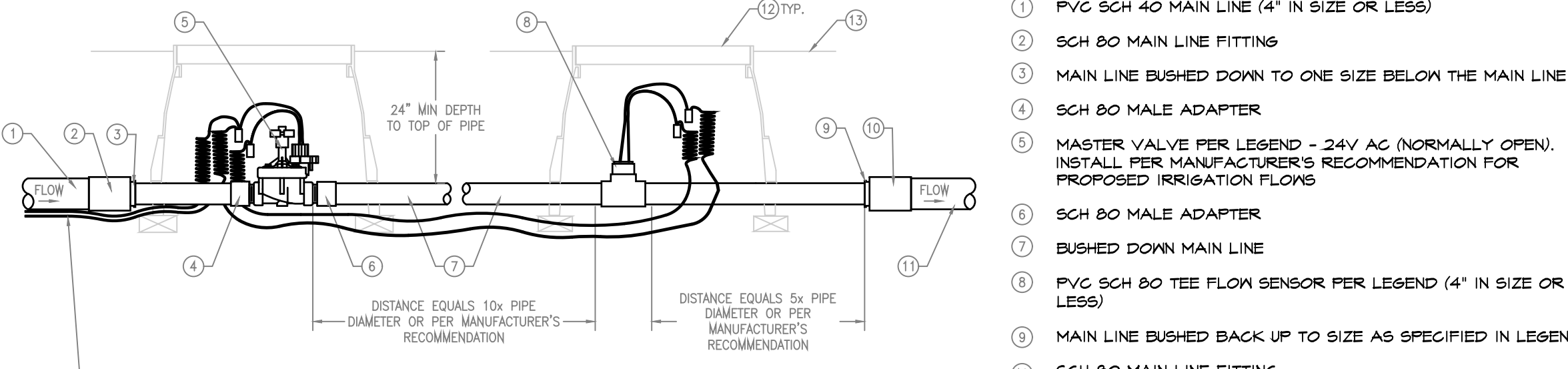
CARSON 1220 EXTENSION AS NEEDED TO MEET FINISH GRADE

**4 VALVE BOX INSTALLATION**



NOTE: 2-1/2" MAIN LINE IN SIZE OR GREATER TO BE CLA-VALVE PER STANDARD DETAILS.  
 PRESSURE NOTE:  
 1) CONTRACTOR TO RUN PRESSURE TEST ON THE IRRIGATION POINT OF CONNECTION PRIOR TO INSTALLATION OF IRRIGATION MAIN LINE. CONTRACTOR TO PROVIDE WRITTEN DOCUMENTATION OF AVAILABLE PRESSURE AT THE POINT OF CONNECTION TO THE CITY 12 HOURS PRIOR TO ORDERING OF ANY MAIN LINE MATERIALS.  
 2) IF ANY DISCREPANCIES ARE FOUND OR LOW PRESSURE, THE CONTRACTOR IS TO COORDINATE WITH THE CITY PRIOR TO PURCHASING AND INSTALLATION OF ANY IRRIGATION COMPONENTS TO REMEDY THE LOW PRESSURE ISSUES.  
 3) INSTALL PRESSURE REGULATOR PER MANUFACTURER'S RECOMMENDATIONS.

**7 PRESSURE REGULATOR**

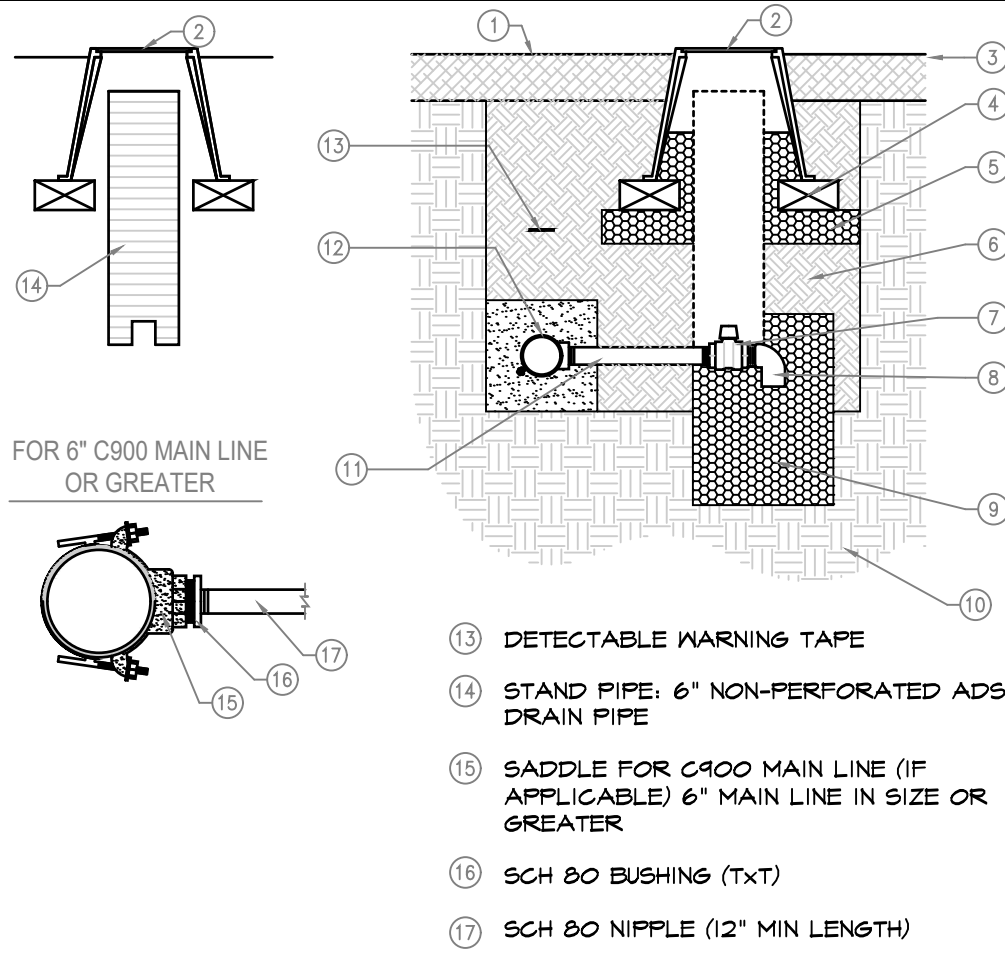


WIRING NOTE: CONTRACTOR TO INSTALL SEPARATE COMMUNICATION CABLE FROM THE CONTROLLER TO THE MASTER VALVE AND FLOW SENSOR LOCATION. CABLE TO BE PE-04 CABLE OR APPROVED EQUAL.

MASTER VALVE AND FLOW SENSOR NOTES:  
 1) CONTRACTOR TO VERIFY IRRIGATION PLAN PROPOSED FLOWS WITH MANUFACTURER'S RECOMMENDED FLOW RANGE.  
 2) CONTRACTOR TO INSTALL PER MANUFACTURER'S RECOMMENDATION AND PROVIDE THE CITY WITH WRITTEN DOCUMENTATION THAT THE MASTER VALVE AND FLOW SENSOR HAS BEEN INSTALLED PER MANUFACTURER'S RECOMMENDATIONS FOR AVAILABLE FLOW AND PRESSURE.  
 3) IF ANY DISCREPANCIES ARE FOUND WITH THE PROPOSED FLOW RANGE THE CONTRACTOR IS TO PROVIDE THE CITY WITH WRITTEN DOCUMENTATION 12 HOURS PRIOR TO ORDERING EQUIPMENT FOR FURTHER INQUIRY.  
 4) WIRING NOTE: CONTRACTOR TO INSTALL SEPARATE COMMUNICATION CABLE FROM THE CONTROLLER TO THE MASTER VALVE FLOW SENSOR LOCATION. CABLE TO BE PE-04 CABLE OR APPROVED EQUAL.

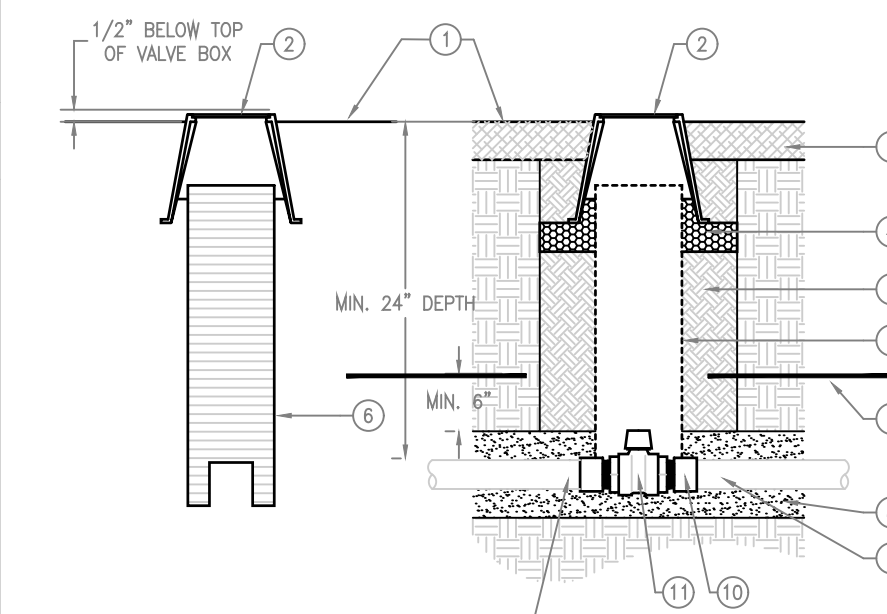
**5 MASTER VALVE AND FLOW SENSOR**

1 FINISH GRADE (TYP)  
 2 CARSON 910 VALVE BOX (GREEN FOR POTABLE AND PURPLE FOR RECLAIMED)  
 3 GROUND COVER MULCH OR TURF PER LEGEND  
 4 CONCRETE BRICK OR PAVER  
 5 GRAVEL BACKFILL (3/4" DRAIN ROCK)  
 6 NATIVE SOIL BACKFILL MATERIAL. COMPACTED TO 45% RELATIVE COMPACTION  
 7 CURB STOP GATE VALVE (3/4" MANUAL DRAIN VALVE)  
 8 SCH 40 STREET 90 ELBOW OR MARLEX (3/4" IN SIZE)  
 9 DRAIN ROCK BACKFILL (3/4" DRAIN ROCK) 1 CUBIC FOOT OF DRAIN ROCK PER DRAIN  
 10 NATIVE SOILS  
 11 SCH 80 NIPPLE (12" MIN LENGTH)  
 12 SCH 80 MAIN LINE FITTING PER LEGEND (FOR 4" MAIN LINE OR LESS IN SIZE)



**8 MANUAL DRAIN VALVE**

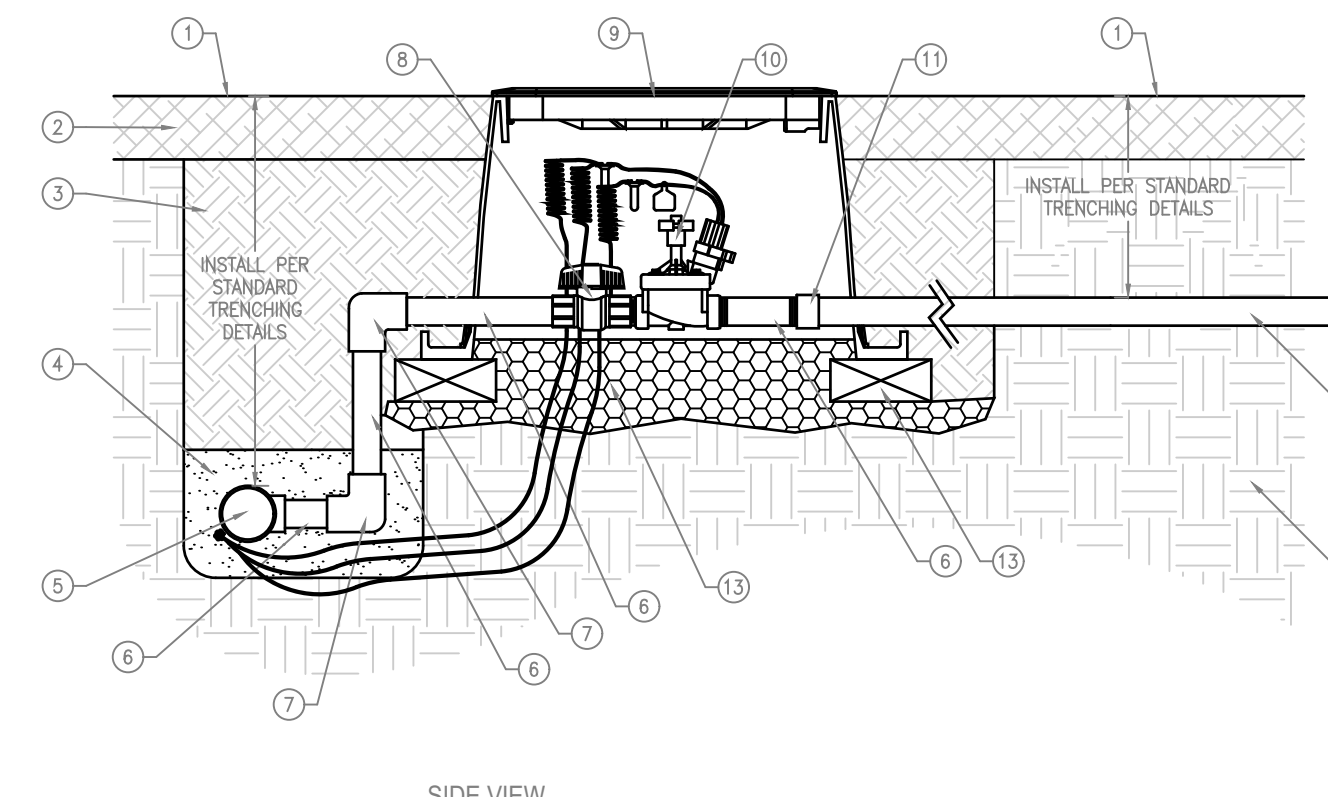
**3 TRENCHING**



48" OF STRAIGHT PIPE OFF OF EACH SIDE WITH NO FITTINGS OR ANGLE CHANGES (BOTH SIDES - TYP)

1 FINISH GRADE (TYPICAL)  
 2 ROUND BOX: CARSON 910 (GREEN FOR POTABLE OR PURPLE FOR RECLAIMED)  
 3 GROUND COVER MULCH OR TURF PER LEGEND  
 4 DRAIN ROCK BACKFILL MATERIAL: 3/4" DRAIN ROCK (4" MIN DEPTH)  
 5 COMPACTED NATIVE SOILS PER TRENCHING DETAIL AND SPECIFICATION  
 6 STAND PIPE: 6" CORRUGATED ADS NON-PERFORATED DRAIN PIPE  
 7 DETECTABLE WARNING TAPE PER TRENCHING DETAIL AND SPECIFICATION  
 8 SAND BACKFILL AROUND MAIN LINE (MIN 3" ON ALL SIDES)  
 9 MAIN LINE PER LEGEND (2" MAIN LINE OR LESS)  
 10 MAIN LINE FITTING: SCHEDULE 80 MALE ADAPTER  
 11 BRASS INLINE CURB STOP GATE VALVE (FIP)

**6 CURB STOP ISOLATION VALVE**



1 FINISH GRADE (TYP)  
 2 GROUND COVER MULCH PER LEGEND  
 3 COMPACTED NATIVE SOIL BACKFILL MATERIAL. COMPACTED TO 90% RELATIVE COMPACTION  
 4 SAND BACKFILL MATERIAL ON MAIN LINE PER STANDARD DETAILS  
 5 SCH 80 MAIN LINE FITTINGS  
 6 1" SCH 40 PVC MAIN LINE (GLUED)  
 7 SCH 80 FITTING (90 DEGREE ELBOW)  
 8 SCH 40 BALL VALVE  
 9 CARSON 1220 VALVE BOX (GREEN IN COLOR FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER)  
 10 COMMERCIAL SPRAY VALVE SIZE PER LEGEND  
 11 SCH 40 FEMALE ADAPTER  
 12 DRAIN ROCK BACKFILL MATERIAL (3/4" IN SIZE)  
 13 CONCRETE BRICK OR PAVER  
 14 LATERAL LINE: SCH 40 PVC PIPING WITH SCH 40 FITTINGS PER LEGEND (SIZED PER PLAN)  
 15 NATIVE SOIL (TYP)  
 16 SADDLE FOR C900 MAIN LINE (IF APPLICABLE) 6" IN SIZE OR GREATER  
 17 SCH 80 BUSHING (TxT)

**9 SPRAY VALVE**

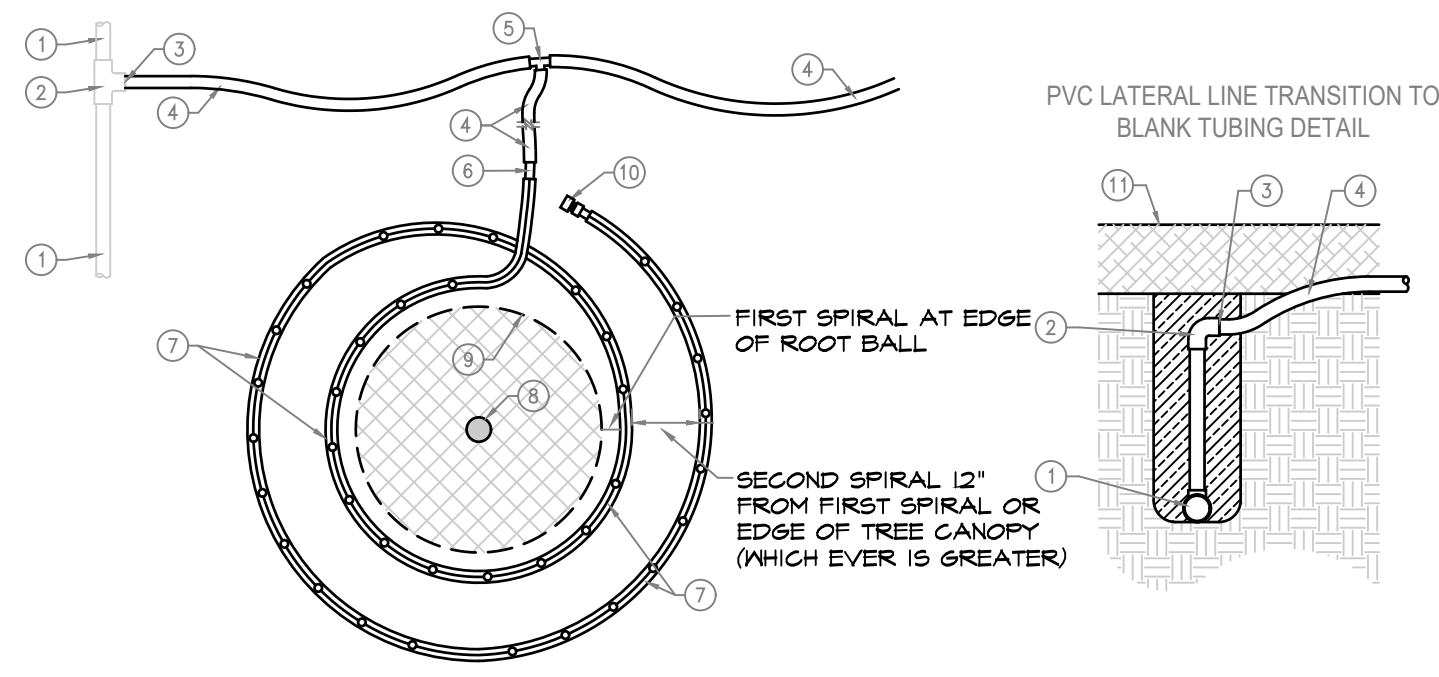


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BID/CONSTRUCTION SET DETAILS  
**JACK REVIGLIO MEMORIAL PARK**  
 CITY OF SPARKS  
 Washoe County  
 Nevada

No.	Revision Date

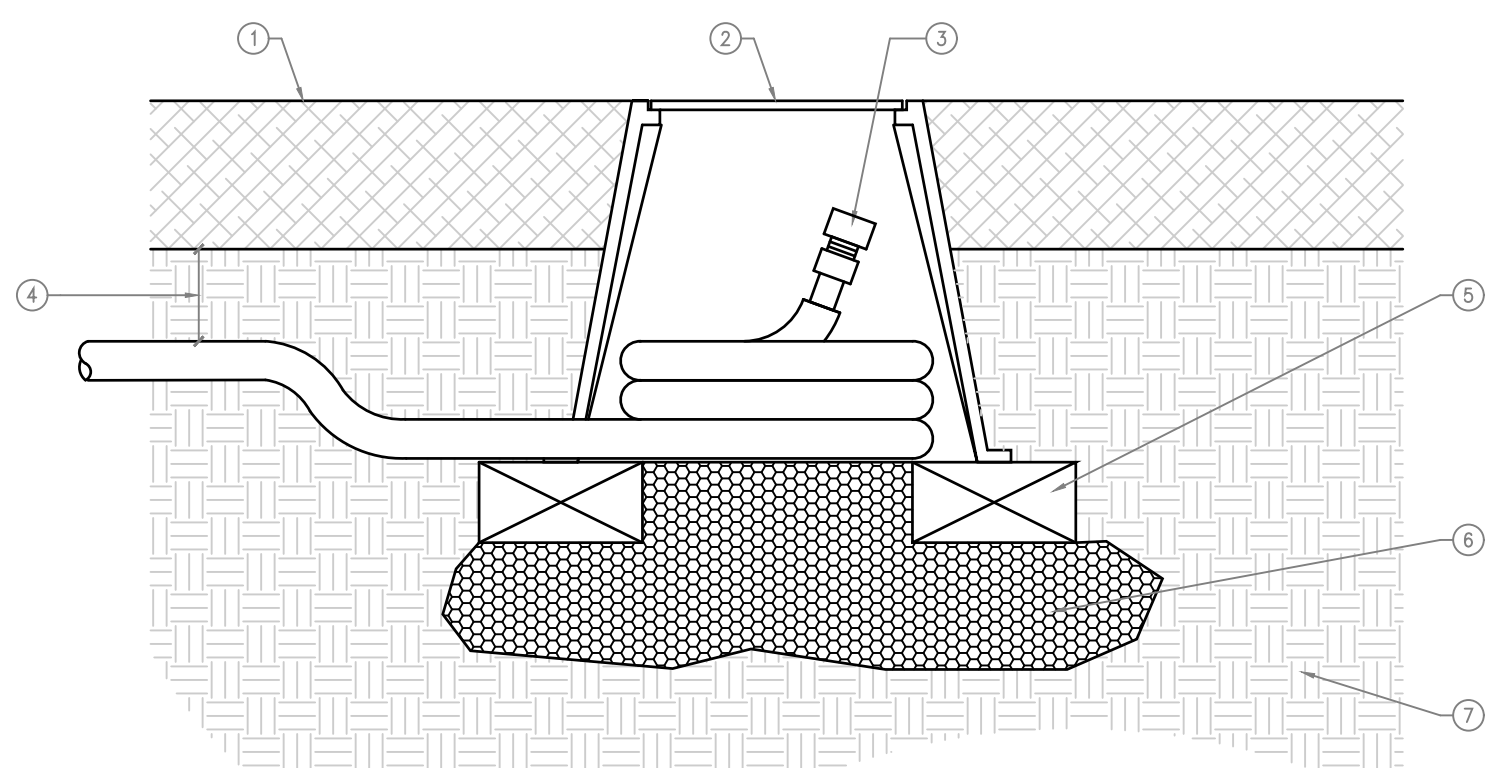
LA No. 251-SOT-06-18  
 Designed: DD  
 Drawn: LE  
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 Date: 10/30/18



- 1 TREE DRIP VALVE LATERAL LINE, PVC SCH 40 DRIP LATERAL LINE PIPING PER IRRIGATION PLAN. INSTALL PER LATERAL LINE TRENCHING STANDARD DETAIL
- 2 SCH 40 DRIP LATERAL LINE FITTINGS (TYP)
- 3 TRANSITION FROM PVC TREE DRIP LATERAL LINE TO RAIN BIRD 17MM X F BLANK TUBING
- 4 DRIP DISTRIBUTION TUBING, RAIN BIRD 17MM X F BLANK TUBING
- 5 DRIP FITTINGS, 17MM BARBED INLINE TEE FITTINGS (TYP)
- 6 DRIP FITTINGS, 17MM BARBED INLINE DRIP TUBING FITTINGS (TYP) DRIP TRANSITION FROM BLANK TUBING TO XFS TUBING - 17MM BARBED FITTING
- 7 DRIP TREE SPIRAL, RAIN BIRD 17MM XFS DRIP TUBING (0.6 GPH AT 18" SPACING)
- 8 EDGE OF TREE ROOT BALL (TYPICAL)
- 9 TRUNK OF TREE (TYPICAL)
- 10 END OF DRIP RUN, THREADED GAP FLUSHING END CAP (17MM BARB X 1/2" MPT MALE ADAPTER WITH SCH 40 THREADED GAP) PER TREE END OF DRIP RUN STANDARD DETAIL (PARK ONLY)
- 11 FINISH GRADE (TYPICAL)

SIZE	GPM
1/2"	4
3/4"	7
1"	12
1-1/4"	22
1-1/2"	30
2"	50
2-1/2"	70
3"	110
4"	190
6"	425

1 DRIP TREE RING NOT TO SCALE



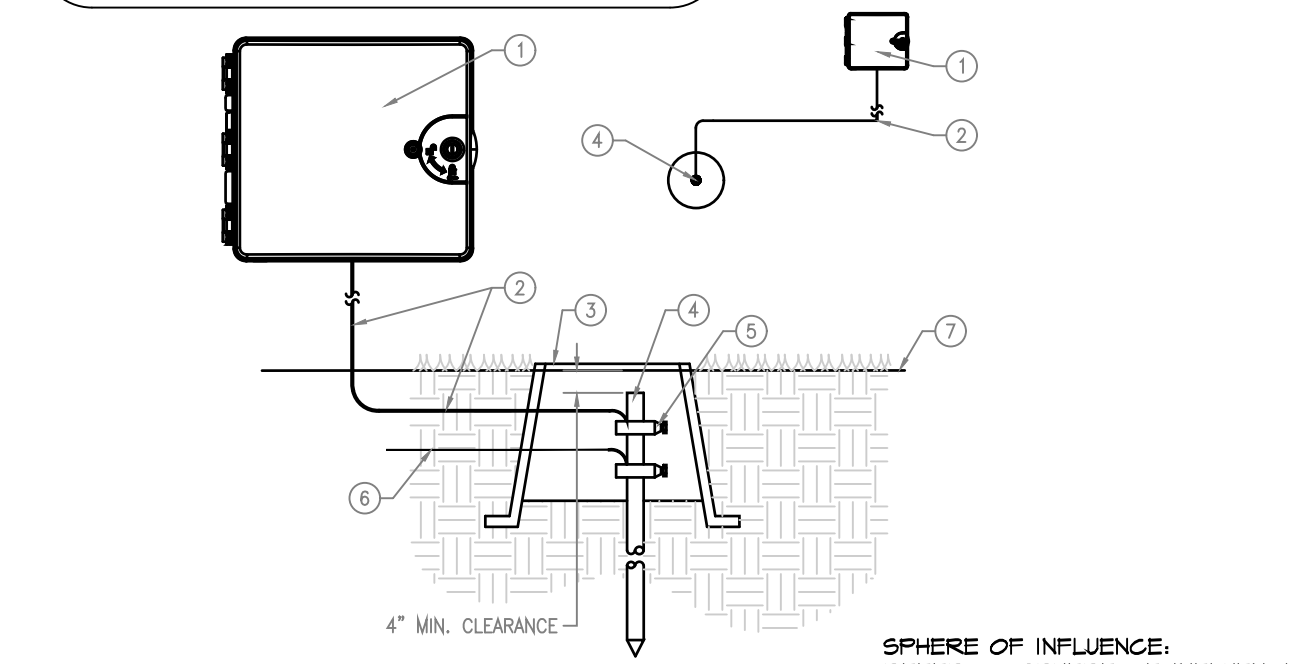
- 1 FINISH GRADE (TYP)
- 2 VALVE BOX, CARSON 910 ROUND BOX (GREEN IN COLOR FOR POTABLE WATER AND PURPLE IN COLOR FOR RECLAIMED WATER)
- 3 END OF DRIP RUN, THREADED GAP FLUSHING END CAP (17MM BARB X 1/2" MPT MALE ADAPTER WITH SCH 40 THREADED GAP) PER TREE END OF DRIP RUN STANDARD DETAIL (PARK ONLY)
- 4 BURY DRIP POLY DISTRIBUTION TUBING MIN. 3" DEPTH INTO THE NATIVE SOILS UNDER ALL GROUND COVER MULCHES THAT DO NOT HAVE FABRIC BENEATH (I.E. BARK OR DG MULCH)
- 5 CONCRETE BRICK OR PAVER FOR VALVE BOX SUPPORT
- 6 DRAIN ROCK BACKFILL MATERIAL, 3/4" DRAIN ROCK SUMP
- 7 NATIVE SOILS

NOTE: FOR ALL TREES AND SHRUBS LOCATED WITHIN A PARK

2 END OF DRIP RUN -FOR PARKS NOT TO SCALE

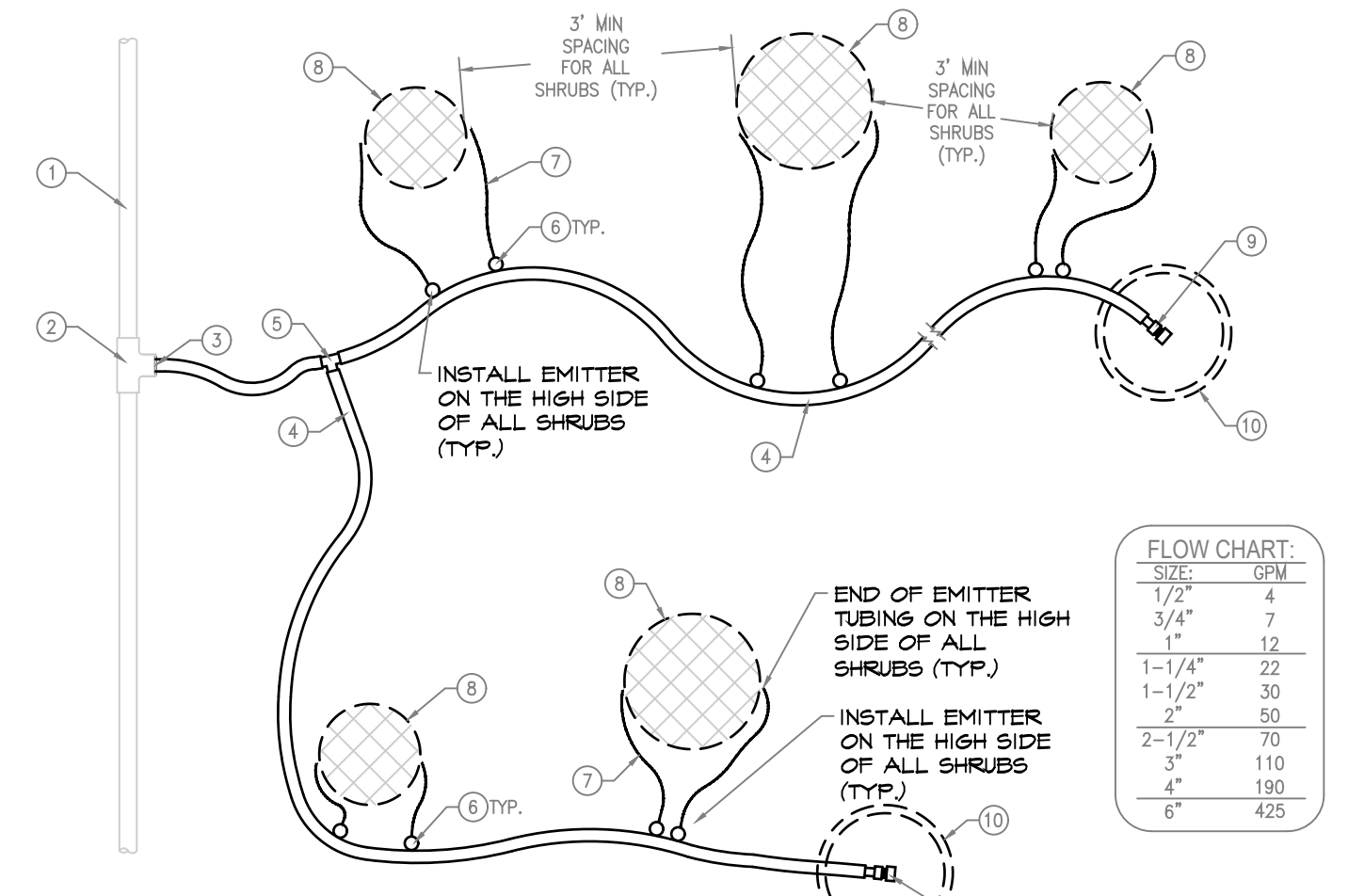
NOTE: CONTRACTOR TO INSTALL SINGLE ROD GROUNDING AND TEST TO SEE IF GROUND RESISTANCE OF 10 OHMS OR LESS IS ACHIEVED. IF 10 OHMS OR LESS IS NOT ACHIEVED INSTALL PER TRIPLE ROD STANDARD DETAIL.

PROVIDE WRITTEN TEST RESULTS TO THE OWNER'S REP PRIOR TO COMPLETION OF CONSTRUCTION.



- 1 CONTROLLER PER LEGEND
- 2 SOLID BARE COPPER WIRE (#10 AWG) FROM CONTROLLER TO GROUNDING ROD AND BETWEEN ALL GROUNDING RODS. MAKE WIRE AS SHORT AND STRAIGHT AS POSSIBLE.
- 3 CARSON 910 ROUND VALVE BOX (GREEN FOR POTABLE OR PURPLE FOR RECLAIMED)
- 4 5/8" X 10 FT COPPER CLAD GROUNDING ROD. INSTALL ROD IN SOIL. GROUNDING ROD TO HAVE A RESISTANCE OF TEN (10) OHMS OR LESS.
- 5 GROUND ROD CLAMP OR WELDS
- 6 BARE COPPER WIRE (#10 AWG MIN) BETWEEN GROUNDING RODS.
- 7 FINISH GRADE

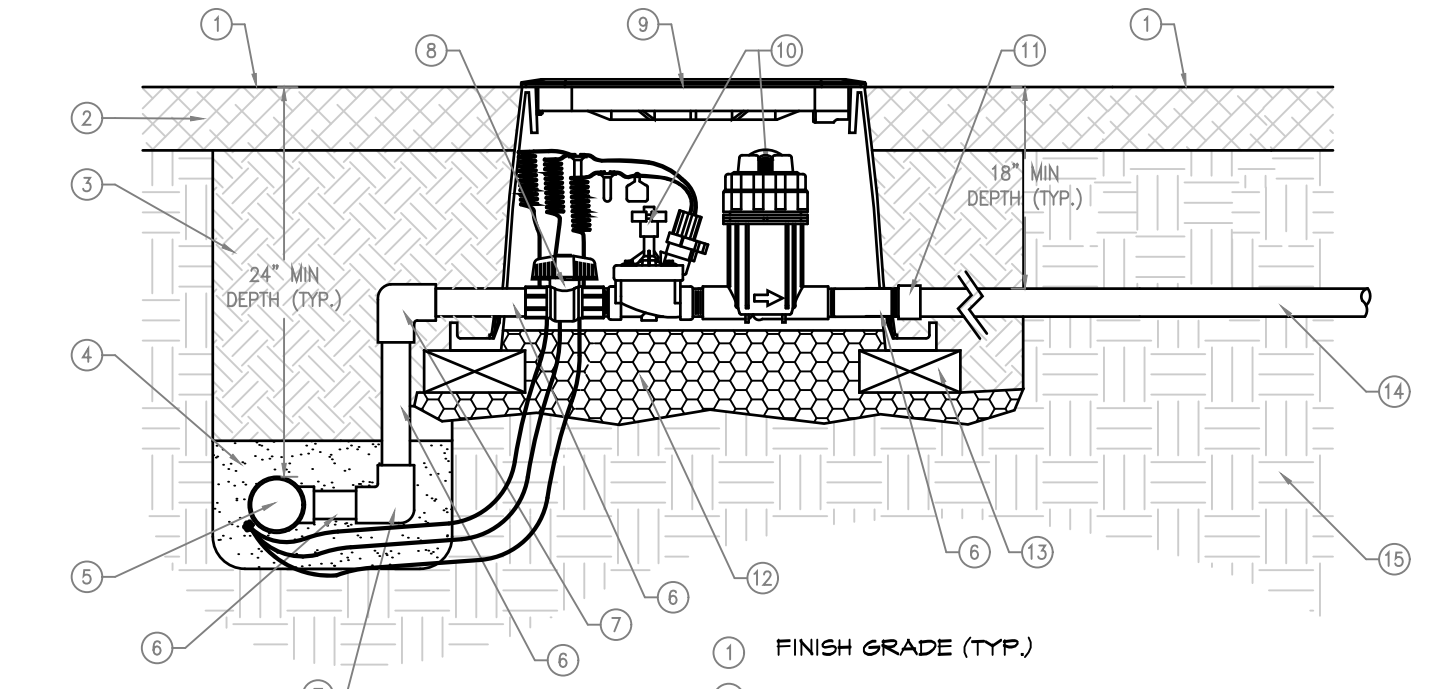
3 CONTROLLER GROUNDING NOT TO SCALE



SIZE	GPM
1/2"	4
3/4"	7
1"	12
1-1/4"	22
1-1/2"	30
2"	50
2-1/2"	70
3"	110
4"	190
6"	425

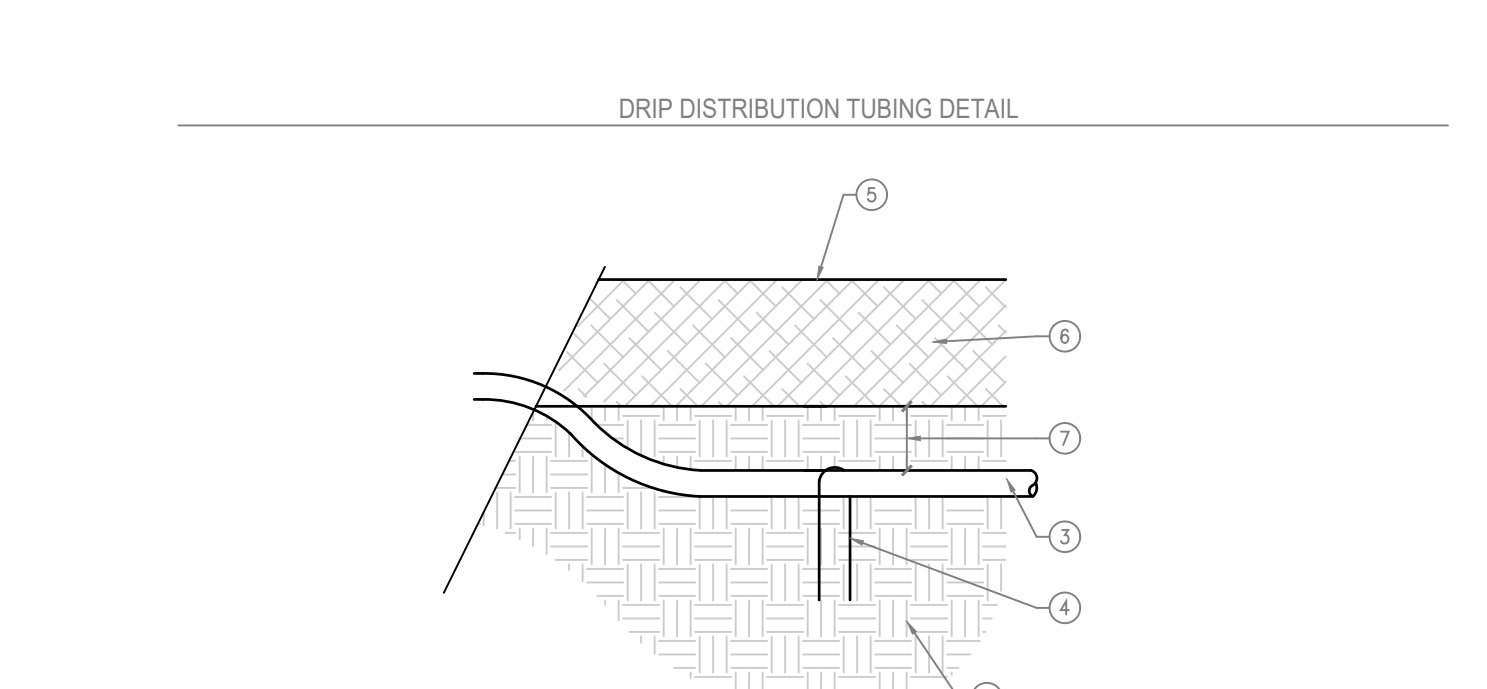
- 1 SHRUB DRIP LATERAL LINE, PVC SCH 40 DRIP LATERAL LINE PIPING PER IRRIGATION PLAN. INSTALL PER LATERAL LINE TRENCHING STANDARD DETAIL
- 2 SCH 40 DRIP LATERAL LINE FITTINGS (TYP)
- 3 TRANSITION FROM PVC TREE DRIP LATERAL LINE TO RAIN BIRD 17MM X F BLANK TUBING
- 4 DRIP DISTRIBUTION TUBING, RAIN BIRD 17MM X F BLANK TUBING
- 5 DRIP FITTINGS, RAIN BIRD 17MM X F BARBED FITTINGS (TYP)
- 6 SHRUB DRIP EMITTER, RAIN BIRD XERI-BUS PRESSURE COMPENSATING EMITTER. INSTALL ALL DRIP EMITTERS ON THE HIGH SIDE OF THE SHRUB.
- 7 EMITTER DISTRIBUTION TUBING, 1/4" POLY DRIP TUBING, MAXIMUM LENGTH OF THE 1/4" POLY DRIP TUBING NOT TO EXCEED 36" IN LENGTH. ALL EMITTER DISTRIBUTION TUBING MUST END ON THE HIGH SIDE OF THE SHRUB (TYPICAL OF ALL SHRUBS)
- 8 EDGE OF SHRUB ROOT BALL (TYPICAL)
- 9 END OF DRIP RUN, THREADED GAP FLUSHING END CAP (17MM BARB X 1/2" MPT MALE ADAPTER WITH SCH 40 THREADED GAP) PER SHRUB END OF DRIP RUN STANDARD DETAIL
- 10 VALVE BOX, STANDARD CARSON 910 (10" ROUND BOX) GREEN FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER
- 11 FINISH GRADE (TYP)

4 DRIP IRRIGATION NOT TO SCALE



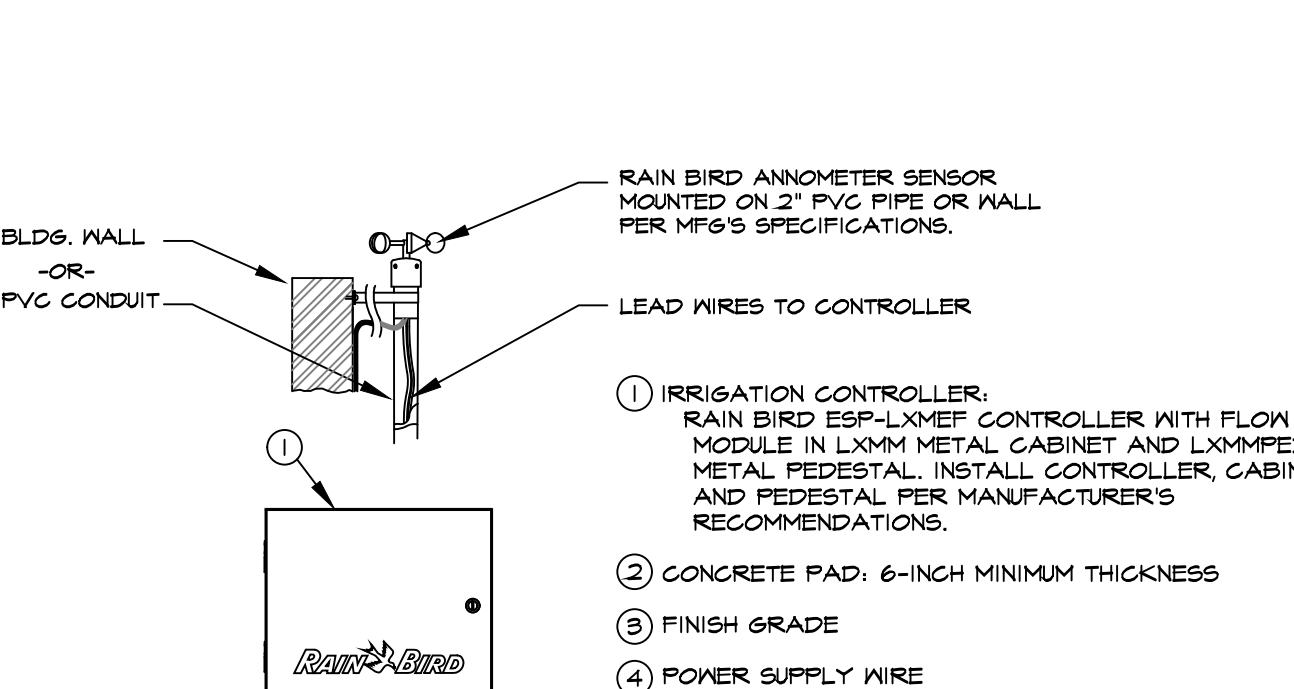
- 1 FINISH GRADE (TYP)
- 2 GROUND COVER MULCH PER LEGEND
- 3 COMPACTED NATIVE SOIL BACKFILL MATERIAL, COMPACTED TO 90% RELATIVE COMPACTION
- 4 SAND BACKFILL MATERIAL ON MAIN LINE PER STANDARD DETAILS
- 5 SCH 80 MAIN LINE FITTINGS
- 6 SCH 40 PVC MAIN LINE (GLUED) SIZE PER LEGEND FOR VALVE SIZE
- 7 SCH 80 FITTINGS (90 DEGREE ELBOW)
- 8 SCH 40 BALL VALVE
- 9 CARSON 1220 VALVE BOX (GREEN IN COLOR FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER)
- 10 COMMERCIAL DRIP VALVE PER LEGEND. FILTER AND PRESSURE REGULATOR ARE TO BE SEPARATE.
- 11 SCH 40 FEMALE ADAPTER
- 12 DRAIN ROCK BACKFILL MATERIAL (3/4" IN SIZE)
- 13 CONCRETE BRICK OR PAVER
- 14 PVC DRIP LATERAL LINE, SCH 40 PVC PIPING WITH SCH 40 FITTINGS PER LEGEND (SIZED PER PLAN)
- 15 NATIVE SOIL (TYP)
- 16 SADDLE FOR GASKETED MAIN LINE (IF APPLICABLE)
- 17 SCH 80 BUSHING (TX7)

5 DRIP VALVE NOT TO SCALE



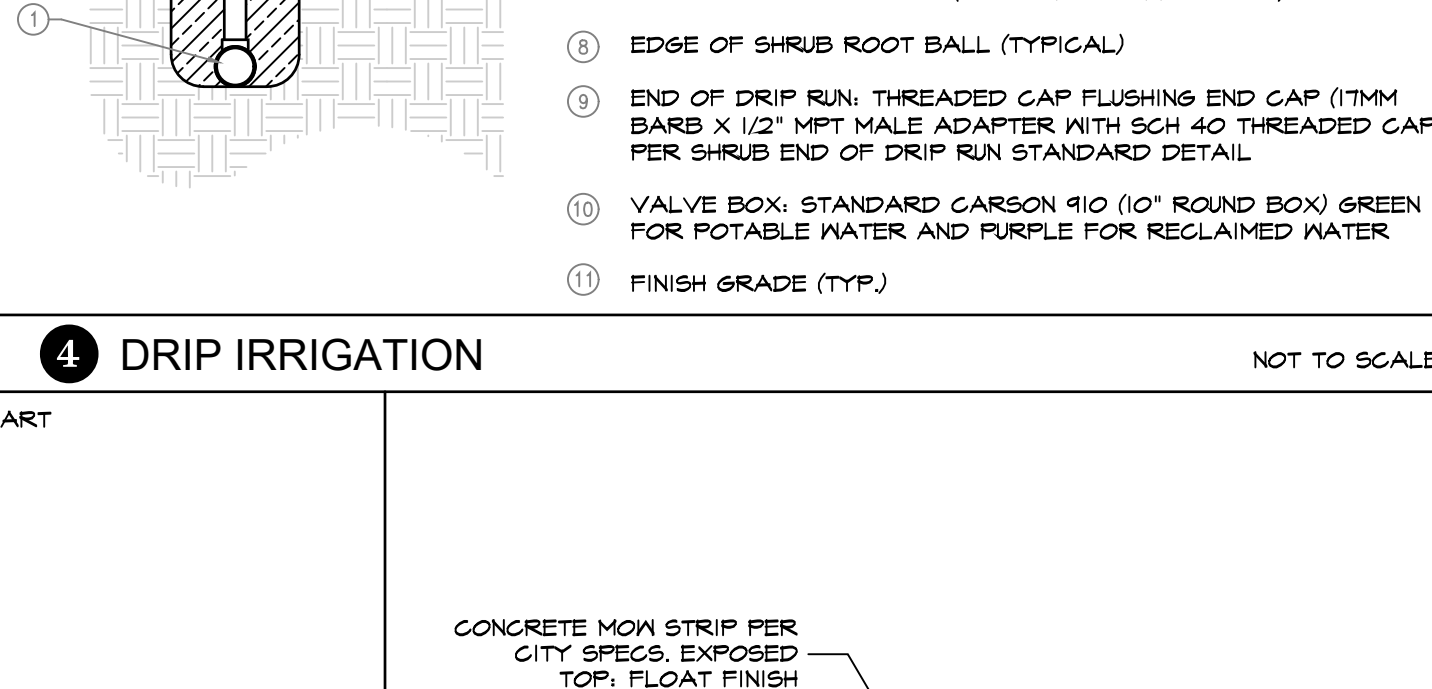
- 1 ROCK GROUND COVER MULCH (PER LEGEND) WITH LANDSCAPE FABRIC BENEATH - NOT USED THIS PROJECT
- 2 LANDSCAPE FABRIC - NOT USED THIS PROJECT
- 3 DRIP 17MM DISTRIBUTION TUBING PER LEGEND
- 4 LANDSCAPE STAPLES EVERY (+/-) 5 LF ON CENTER
- 5 FINISH GRADE (TYP)
- 6 DECOMPOSED GRANITE GROUND COVER MULCH (DO NOT INSTALL LANDSCAPE FABRIC BENEATH THE DG MULCH)
- 7 BURY DRIP 17MM DISTRIBUTION TUBING MIN. 3" DEPTH INTO THE NATIVE SOILS UNDER ALL GROUND COVER MULCHES THAT DO NOT HAVE FABRIC BENEATH
- 8 NATIVE SOILS (TYP)
- 9 TYPICAL TREE OR SHRUB PLANTING
- 10 BARK MULCH IN PLANT WATERING BASINS
- 11 RAIN BIRD XFS DRIP TUBING. CONTRACTOR TO LOCATE THE INLINE DRIP AT THE EDGE OF THE PLANT ROOTBALL AS SHOWN
- 12 TREE OR SHRUB PLANTING BACKFILL MATERIAL PER PLANTING STANDARD DETAILS

6 DRIP INSTALLATION NOT TO SCALE



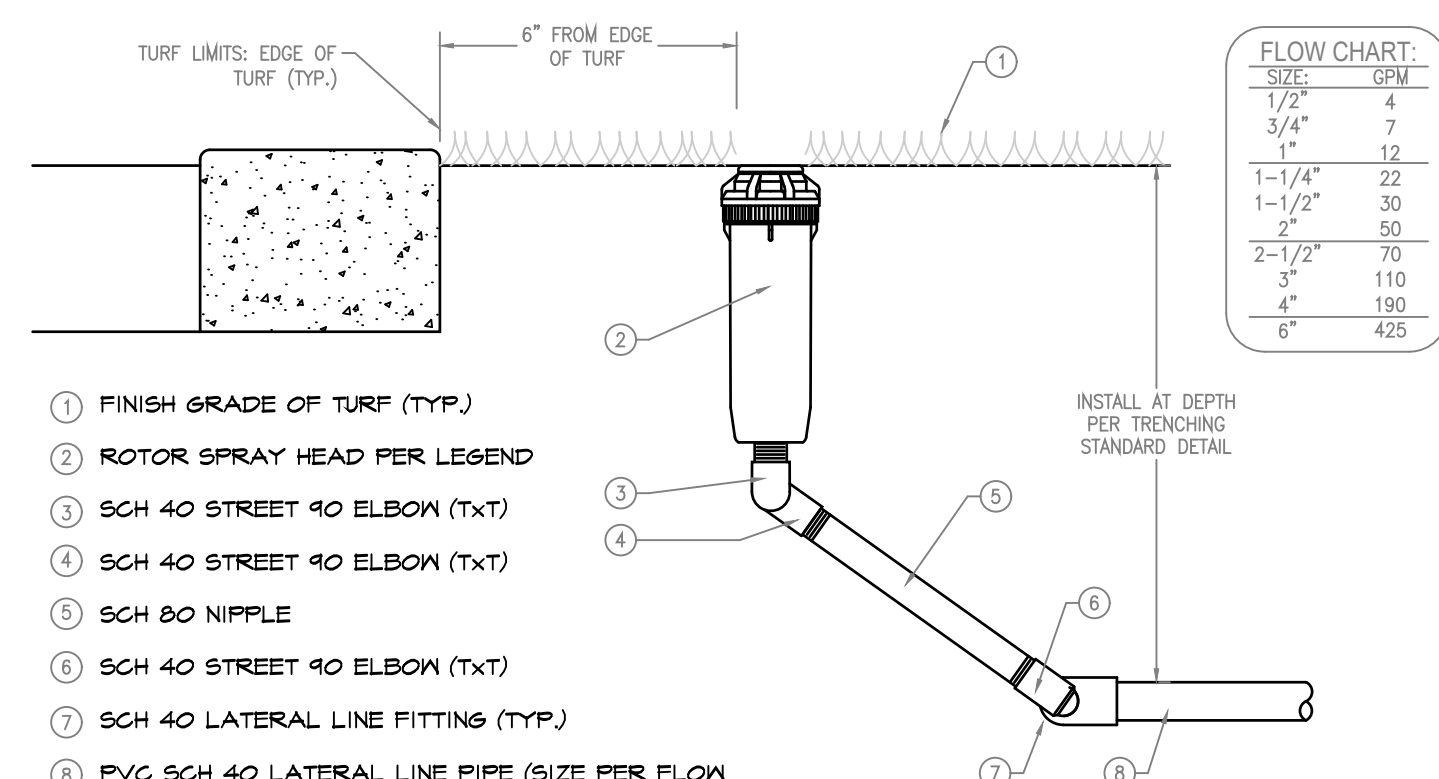
- 1 IRRIGATION CONTROLLER, RAIN BIRD ESP-LXMEF CONTROLLER WITH FLOW SMART MODULE IN LXMM METAL CABINET AND LXMMFD METAL FEDESTAL. INSTALL CONTROLLER, CABINET AND PEDESTAL PER MANUFACTURER'S RECOMMENDATIONS.
  - 2 CONCRETE PAD, 6-INCH MINIMUM THICKNESS
  - 3 FINISH GRADE
  - 4 POWER SUPPLY WIRE
  - 5 1-INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR POWER SUPPLY
  - 6 COMPACTED SUBGRADE
  - 7 3-INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR STATION WIRES
  - 8 FLOW SENSOR WIRE (FE 34, 34 OR 54) TO FLOW SENSOR
  - 9 MASTER VALVE AND REMOTE CONTROL VALVE WIRES
- NOTES:  
 1. ESP-LXMEF CONTROLLER IS AVAILABLE IN 8- OR 12-STATION BASE MODELS. ADDITIONAL MODULES IN 4-, 8- AND 12-STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.  
 2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.  
 3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

7 METAL PEDESTAL CONTROLLER NOT TO SCALE

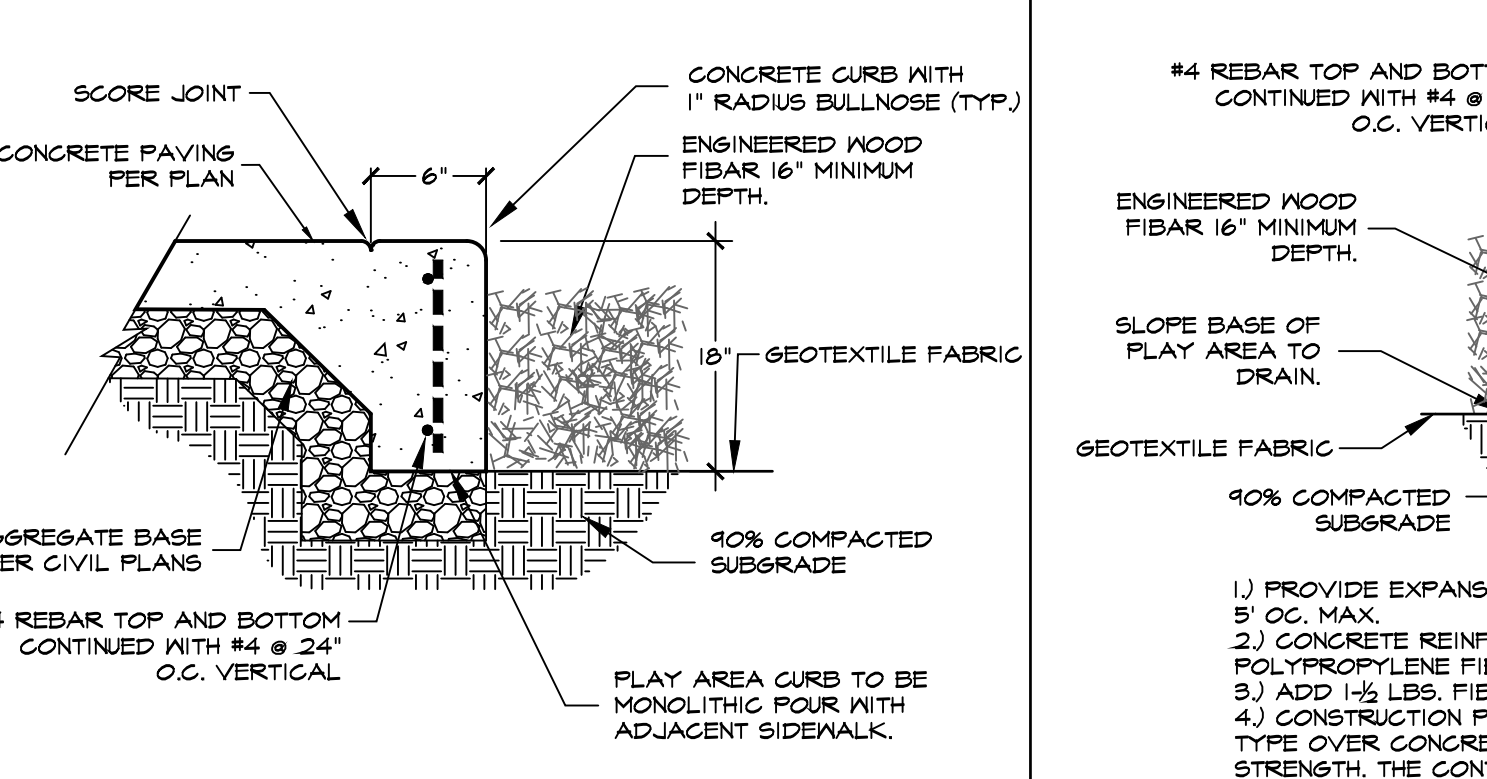


- 1 PROVIDE EXPANSION JOINTS 30' ON CENTER MAX. WEAKENED PLANE JOINTS AT 3' ON CENTER MAX.
- 2 CONCRETE REINFORCEMENT SHALL CONSIST OF COLLATED, FIBRILLATED POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH OR APPROVED EQUAL.
- 3 ADD 1/2 LBS. FIBERMESH PER CUBIC YARD OF CONCRETE.
- 4 CONSTRUCTION PERSONNEL SHALL NOT DRIVE VEHICLES OF ANY SIZE OR TYPE OVER MOW STRIP UNTIL CONCRETE HAS ACHIEVED THE REQUIRED 28 DAYS DESIGN STRENGTH. THE CONTRACTOR SHALL PROTECT MOW STRIP UNTIL THAT TIME.
- 5 SUBGRADE, DENSIFIED TO 90% RELATIVE COMPACTION (OR IN CONFORMANCE WITH GEOTECHNICAL REPORTS RECOMMENDATIONS).

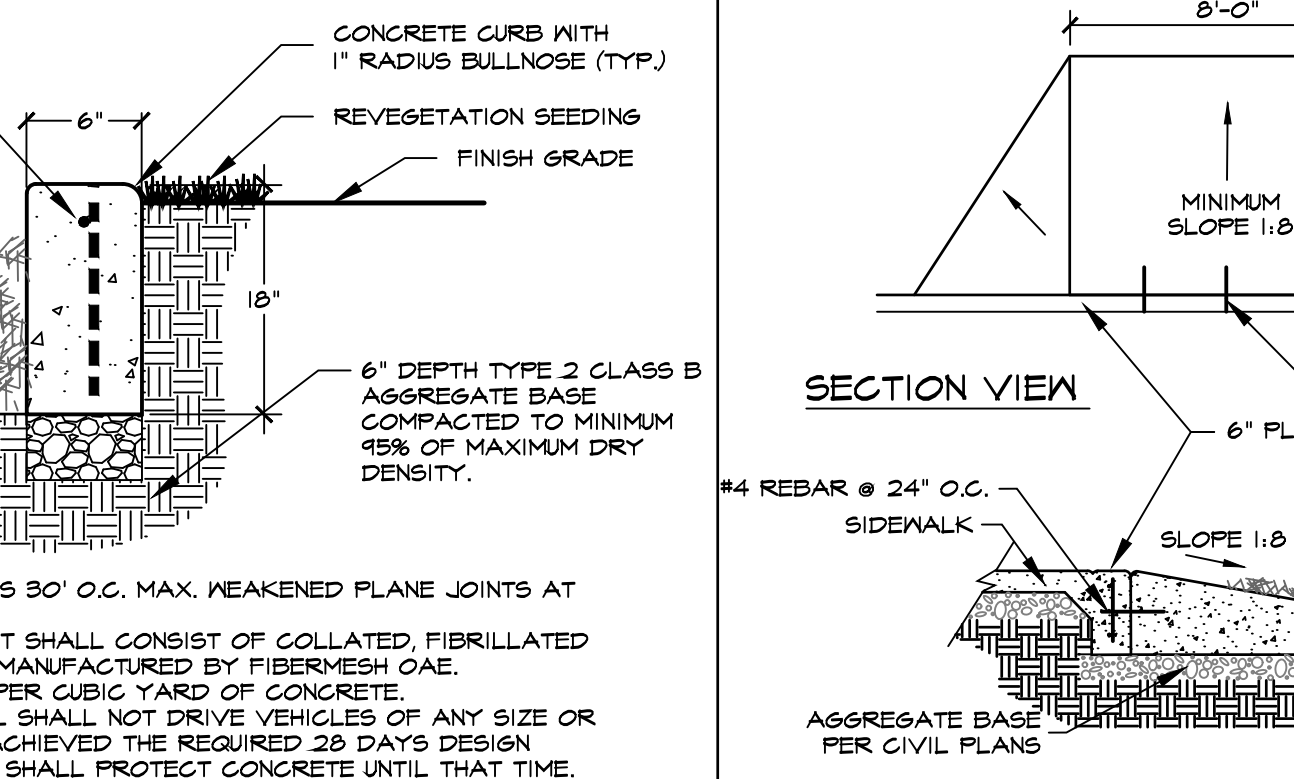
8 CONCRETE MOWSTRIP NOT TO SCALE



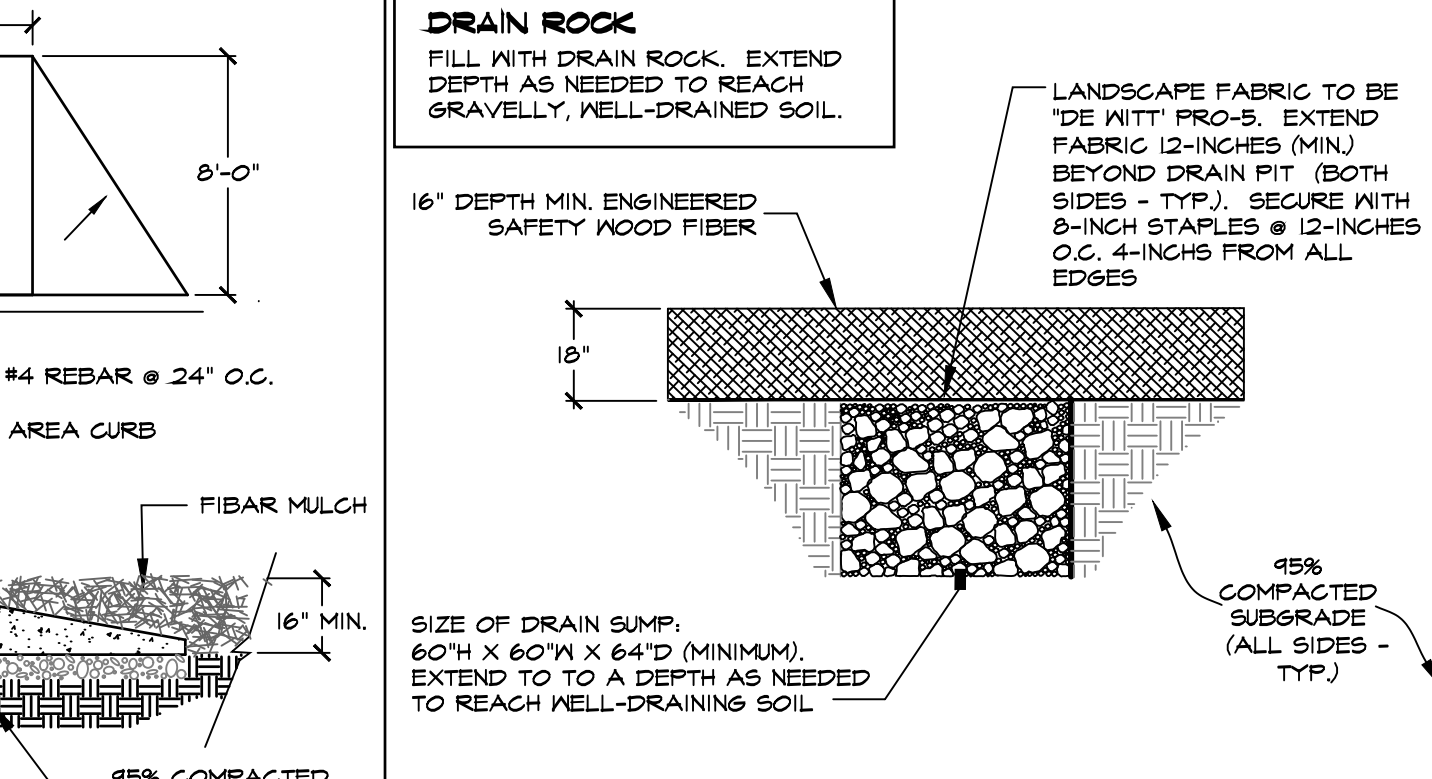
9 POP-UP SPRAY HEAD NOT TO SCALE



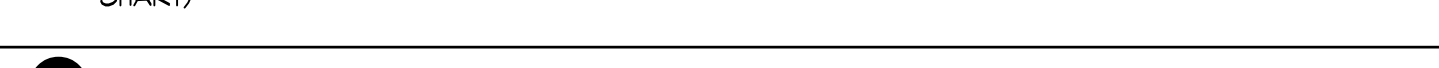
10 THICKENED SIDEWALK EDGE - PLAYCURB NOT TO SCALE



11 CONCRETE PLAYCURB NOT TO SCALE



12 PLAY AREA ACCESS RAMP NOT TO SCALE



13 GRAVEL SUMP DETAIL NOT TO SCALE

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REGISTERED LANDSCAPE ARCHITECT  
 RYAN HANSEN  
 440  
 2/15/21  
 Expires: 5/30/2021  
 STATE OF NEVADA

BID/CONSTRUCTION SET DETAILS  
 JACK REVIGLIO MEMORIAL PARK  
 CITY OF SPARKS

Washoe County  
 Sparks

No.	Revision Date

LA No. 251-SOT-06-18  
 Designed: DD  
 Drawn: LE  
 Checked: DD  
 Date: 10/30/18

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# LANDSCAPE SPECIFICATIONS

### GENERAL

1. PLAN IS DIAGRAMMATIC ONLY. ALL LOCAL GOVERNING CODES SHALL BE MET. EXACT LOCATION OF TREES AND SHRUBS SHALL BE DETERMINED IN THE FIELD (INSTALL AS PER DETAILS) AND APPROVED BY THE OWNER'S REPRESENTATIVE.
2. A MINIMUM OF TWO WORKING DAYS BEFORE PERFORMING ANY DIGGING, CALL UNDERGROUND SERVICE ALERT FOR INFORMATION ON THE LOCATION OF NATURAL GAS LINES, ELECTRICAL CABLES, TELEPHONE CABLES, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND PROTECTION OF ALL UTILITIES, AND REPAIR OF ANY DAMAGE RESULTING FROM HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
3. DAMAGES: CONTRACTOR SHALL PROMPTLY REPAIR ALL DAMAGES TO EXISTING SITE AT NO COST TO OWNER.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES (I.E. PAVING, PLUMBING, ELECTRICAL, ETC.)
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION AND TO NOTIFY THE OWNER'S REPRESENTATIVE SHOULD CONDITIONS EXIST WHICH PREVENT CONSTRUCTION AS PER THESE PLANS. COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE OF CONDITIONS AND RESPONSIBILITY FOR CORRECTIONS.
6. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS AND CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE OWNER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT.

### PLANTING

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADING THROUGHOUT ALL LANDSCAPE AREAS SUCH THAT THERE ARE NO HUMPS OR DEPRESSIONS AND POSITIVE DRAINAGE OCCURS THROUGHOUT.
8. SOIL TEST: CONTRACTOR SHALL PROVIDE SOIL TEST RESULTS FOR EXISTING SITE SOIL AS FOLLOWS:
  - ANALYSIS PACKAGE LTP 4 BY SUNLAND ANALYTICAL (916)852-8551 (OAE).
  - TEST RESULTS SHALL INCLUDE SOIL SATURATION PERCENT, SOIL TEXTURE, INFILTRATION RATE, PH, CONDUCTIVITY, TOTAL DISSOLVED SALTS, CATION EXCHANGE CAPACITY, POTASSIUM, SODIUM, CALCIUM, MAGNESIUM, NITRATE & PHOSPHORUS, SULFUR, CALCIUM, BORON, COPPER, IRON, MANGANESE, ZINC, & LIME REQUIREMENT OR GYPSUM REQUIREMENT, SODIUM ABSORPTION RATIO, EXCHANGEABLE SODIUM PERCENT & ORGANIC MATTER, ALONG WITH RECOMMENDATIONS FOR SOIL AMENDMENT BASED ON ANALYSIS RESULTS.
  - CONTRACTOR SHALL FOLLOW RECOMMENDATIONS OF SOIL TEST.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TOTAL AND CONFIRM ALL MATERIAL QUANTITIES. ITEMS QUANTIFIED BY AN AREA (I.E. SQUARE FEET OR SF, SQUARE YARD - SY) OR VOLUME (CUBIC FEET - CU FT, CUBIC YARD - CU YD) SHALL BE CALCULATED AND CONFIRMED BY THE CONTRACTOR. THE QUANTITIES LISTED ON THE PLANT LIST ARE ESTIMATED. IN THE EVENT OF A DISCREPANCY BETWEEN THE TOTALS LISTED ON THE PLANT LIST AND THE QUANTITY OF GRAPHIC PLANT SYMBOLS DEPICTED ON THE DRAWINGS, THE GRAPHIC SYMBOLS ON THE PLANS SHALL GOVERN. THE ACTUAL TOTAL QUANTITIES SHALL BE DETERMINED BY THE CONTRACTOR.
10. SOIL AMENDMENT: UNLESS OTHERWISE INDICATED BY THE SOIL TEST, SOIL AMENDMENT SHALL BE HUMUS COMPOSED OF TOPSOIL, BARK HUMUS, AND COMPOST. SUBMIT TO OWNER'S REPRESENTATIVE FOR APPROVAL.
11. ALL PLANTS NOT MEETING OR EXCEEDING REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE ANSI Z601 "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN SHALL BE REJECTED. CONTRACTOR SHALL RECEIVE ON-SITE APPROVAL OF PLANT MATERIAL BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. FAILURE TO RECEIVE PRIOR APPROVAL MAY RESULT IN REJECTION OF PLANT MATERIAL FOLLOWING INSTALLATION. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND EVALUATE PLANT MATERIAL THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD.
12. ALL PLANTING BEDS SHALL RECEIVE TOP-DRESSING OF MULCH AS FOLLOWS:
  - DECOMPOSED GRANITE (DG) - INSTALL 4" MIN. DEPTH OF  $\frac{3}{8}$ " COURSE OXBORROW DG (OAE) - DO NOT INSTALL NEED FABRIC UNDER DG MULCH.
  - ROCK - SCREENED ON-INSTALL 4" MIN. DEPTH OF ON-SITE ROCK SIZED 6"+/- OVER LANDSCAPE FABRIC.
  - BARK MULCH - INSTALL "WALK-ON" BARK MULCH (OAE) IN TREE AND SHRUB WATERING WELLS LOCATED WITHIN ROCK MULCH AREAS. - DO NOT INSTALL LANDSCAPE FABRIC UNDER BARK.
  - GRANULAR PRE-EMERGENT HERBICIDE - APPLY RONSTAR TURF & ORNAMENTAL HERBICIDE (OAE) TO ALL PLANTING BEDS PER MFG'S SPECIFICATIONS.
13. SOOD
  - LOOSEN SUBGRADE OF LAVN AREAS TO A MINIMUM DEPTH OF 6 INCHES. REMOVE STONES MEASURING OVER 1 INCH IN ANY DIMENSION. REMOVE STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEUS MATTER. LIMIT PREPARATION TO AREAS WHICH WILL BE PLANTED PROMPTLY AFTER PREPARATION.
  - SPREAD MINIMUM 6 CY SOIL AMENDMENT (GROUND BARK BASED PRODUCT, 1/4" MAXIMUM PARTICLE SIZE, NITROGEN STABILIZED) PER 1,000 SF OVER AREA TO BE PLANTED. PLACE APPROXIMATELY 1/2 OF TOTAL AMOUNT OF SOIL AMENDMENT REQUIRED. WORK INTO TOP OF LOOSENED SUBGRADE BY ROTOTILLING TO CREATE A TRANSITION LAYER AND THEN PLACE REMAINDER OF SOIL AMENDMENT.
  - FINE GRADE LAVN AREAS TO SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL, RAKE, AND DRAG LAVN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS AS REQUIRED TO MEET FINISH GRADES. LIMIT FINE GRADING TO AREAS WHICH WILL BE PLANTED IMMEDIATELY AFTER GRADING. FINISH GRADES SHALL BE AS NEEDED BELOW PAVEMENT EDGES TO ALLOW FOR SOD PLACEMENT.
  - MOISTEN PREPARED LAVN AREAS BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY BEFORE PLANTING LAVNS. DO NOT CREATE A MUDDY SOIL CONDITION.
  - LAY SOD PIECES TIGHTLY TOGETHER WITH NO GAPS BETWEEN PIECES. STAGGER PIECES SUCH THAT SEAMS ALTERNATE EVERY OTHER ROW.
  - IRRIGATE AND ROLL ENTIRE SOD AREA WITH 200 LB (MIN) ROLLER SUCH THAT THE FINISH SOD LAVN IS FREE OF HUMPS AND DEPRESSIONS.
  - REPAIR ANY DAMAGE FROM OTHER CONSTRUCTION ACTIVITIES AND REPLACE ANY PIECES WHICH DO NOT ROOT AND GROW, SUCH THAT THERE ARE NO BARE SPOTS THROUGHOUT SOD LAVN.

### OBSERVATIONS/APPROVALS/SUBMITTALS

20. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING OWNER'S REPRESENTATIVE, A MINIMUM OF 48 HOURS IN ADVANCE, FOR THE FOLLOWING SITE OBSERVATIONS AND/OR MEETINGS:
  - PRECONSTRUCTION MEETINGS WITH ALL PARTIES
  - PLANT MATERIAL ON SITE, PRIOR TO INSTALLATION
  - OPEN TRENCH, MAINLINE (WITH VALVES ATTACHED) PRESSURE TEST
  - FINAL PROJECT WALK-THROUGH
  - ADDITIONAL SITE OBSERVATIONS AS DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE.
21. SUBMIT AMENDMENT AND MULCH SAMPLES TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION. FAILURE TO COMPLY MAY RESULT IN REJECTION OF MULCH OR AMENDMENT PRIOR TO OR FOLLOWING INSTALLATION.
22. PLANT SUBSTITUTIONS - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROVIDE PLANT MATERIAL AS SPECIFIED ON THIS PLAN. THE CONTRACTOR MAY SUBMIT A REQUEST TO PROVIDE SUBSTITUTIONS FOR THE SPECIFIED PLANT MATERIAL UNDER THE FOLLOWING CONDITIONS:
  - ANY SUBSTITUTIONS PROPOSED SHALL BE SUBMITTED TO THE PROJECT OWNER'S REPRESENTATIVE WITHIN TWO WEEKS OF THE AWARD OF CONTRACT. SUBSTITUTIONS MUST MEET EQUIVALENT DESIGN AND FUNCTIONAL GOALS OF THE ORIGINAL MATERIALS AS DETERMINED BY THE OWNER'S REPRESENTATIVE. ANY CHANGES MUST HAVE THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
  - THE REQUEST WILL BE ACCOMPANIED BY AT LEAST THREE NOTICES FROM PLANT MATERIAL SUPPLIERS THAT THE PLANT MATERIAL SPECIFIED IS NOT AVAILABLE AND WILL NOT BE AVAILABLE PRIOR TO CONSTRUCTION.
23. SUBMIT REQUIRED SOIL REPORT, AND SAMPLE OF PROPOSED SOIL AMENDMENTS TO OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
24. RECORD (AS-BUILT) DRAWINGS - FOLLOWING COMPLETION OF PROJECT INSTALLATION, AND PRIOR TO FINAL APPROVAL, CONTRACTOR SHALL PREPARE AND SUBMIT RECORD DRAWINGS DEPICTING A COMPLETE LANDSCAPE AND IRRIGATION INSTALLATION. PROCURE FROM OWNER DIGITAL COPIES OF CONTRACT DRAWINGS. CONSTRUCTION DRAWINGS SHALL BE ON THE PROJECT SITE AT ALL TIMES DURING INSTALLATION. CONTRACTOR SHALL MAKE A DAILY RECORD OF ALL WORK INSTALLED DURING EACH DAY. ACTUAL LOCATION OF TREES AND SHRUB BEDS, IRRIGATION VALVES, AND ALL IRRIGATION AND DRAINAGE PIPING SHALL BE SHOWN ON THE PRINTS BY DIMENSIONS FROM EASILY IDENTIFIED PERMANENT FEATURES, SUCH AS BUILDING, CURBS, FENCES, WALKS, OR PROPERTY LINES. DRAWINGS SHALL SHOW MANUFACTURER'S NAME AND CATALOG NUMBER. THE DRAWINGS SHALL BE TO SCALE. ALL INFORMATION NOTED ON THE PRINT SHALL BE TRANSFERRED TO THE COPIES BY CONTRACTOR AND ALL INDICATIONS SHALL BE RECORDED IN A NEAT, ORDERLY MANNER. THE RECORD COPIES SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE.

### GUARANTEES/WARRANTY

25. ALL PLANTED AREAS SHALL BE MAINTAINED FOR A PERIOD OF ONE YEAR FOLLOWING WRITTEN ACCEPTANCE BY OWNER'S REPRESENTATIVE. LANDSCAPE CONTRACTOR WILL GUARANTEE ALL PLANT MATERIAL (INCLUDING BUT NOT LIMITED TO TREES, SHRUBS, GROUND COVER, AND GRASSES) FOR A PERIOD OF ONE FULL YEAR FOLLOWING FINAL ACCEPTANCE OF THE LANDSCAPE INSTALLATION BY THE OWNER'S AUTHORIZED REPRESENTATIVE. IN BIDDING AND INSTALLING THE PLANT MATERIAL SPECIFIED ON THESE PLANS, THE LANDSCAPE CONTRACTOR AGREES THAT THE PLANT MATERIAL SPECIFIED IS SUITABLE TO THE PROJECT SITE. FURTHERMORE, THE LANDSCAPE CONTRACTOR AGREES TO HONOR THE WARRANTY AND, IF NECESSARY, REPLACE SPECIES WITH A MORE HARDY PLANT TYPE IF DEEMED NECESSARY DUE TO EXCESSIVE DIE OUT. IF THE LANDSCAPE CONTRACTOR DOES NOT BELIEVE CERTAIN PLANT MATERIAL IS SUITABLE FOR THE SITE AND/OR ITS MICRO-CLIMATES, THE LANDSCAPE CONTRACTOR SHALL REQUEST TO MAKE PLANT MATERIAL SUBSTITUTIONS IN WRITING TO THE LANDSCAPE ARCHITECT PRIOR TO THE START OF INSTALLATION. PROPOSED SUBSTITUTIONS WILL RESULT IN NO ADDED COST.

# IRRIGATION SPECIFICATIONS

### GENERAL

1. PLAN IS DIAGRAMMATIC ONLY. FINAL LOCATION OF LINES AND HEADS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE. LINES SHALL BE IN A COMMON TRENCH WHEREVER POSSIBLE. THE POINT-OF-CONNECTION SHALL BE AS INDICATED ON THE PLAN.
2. THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AND ENSURE THAT ALL LOCAL CODES ARE MET.
3. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL PERMITS REQUIRED FOR INSTALLATION OF THE IRRIGATION SYSTEM AS DEPICTED ON THESE PLANS.
4. CONTRACTOR SHALL VERIFY AVAILABLE FLOW AND PRESSURE DOWNSTREAM FROM THE POINT-OF-CONNECTION PRIOR TO SYSTEM INSTALLATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY IF AVAILABLE FLOW IS LESS THAN REQUIRED TO RUN THE LARGEST ZONE. CONTRACTOR SHALL NOT PROCEED ANY FURTHER WITH INSTALLATION OF THE SYSTEM UNTIL NECESSARY DESIGN REVISIONS HAVE BEEN DETERMINED BY OWNER'S REPRESENTATIVE.
5. THE CONTRACTOR SHALL NOT FULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR DIFFERENCES IN DIMENSIONS EXIST THAT MIGHT HAVE BEEN UNKNOWN DURING ENGINEERING. SUCH OBSTRUCTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY AT NO ADDITIONAL COST TO OWNER.
6. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
7. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SPRINKLER MATERIALS, INCLUDING PIPE, WITH THE LANDSCAPE DRAWINGS TO AVOID INTERFERING WITH THE PLANTING OF TREES, SHRUBS, OR OTHER PLANTINGS.
8. ALL VALVES ARE TO BE LOCATED IN PLANTING AREAS WHEREVER POSSIBLE.
9. ALL ELECTRICAL WIRE FROM CONTROLLER TO VALVES SHALL BE 12 GAUGE UL DIRECT BURIAL OR LARGER AS REQUIRED BY LENGTH PER MANUFACTURER'S SPECIFICATIONS.
10. BACKFILL FOR TRENCHING SHALL BE COMPACTED TO A DRY DENSITY EQUAL TO THE UNDISTURBED ADJACENT SOIL AND SHALL CONFORM TO ADJACENT GRADES WITHOUT DIPS, HUMPS, OR OTHER IRREGULARITIES.
11. A MINIMUM OF TWO WORKING DAYS PRIOR TO PERFORMING ANY DIGGING, CALL UNDERGROUND SERVICE ALERT AT 1-800-321-2600 FOR INFORMATION ON THE LOCATION OF NATURAL GAS LINES, ELECTRICAL CABLES, TELEPHONE CABLES, ETC.
12. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
13. INSTALL ALL PIPE AND CONTROL WIRES IN LANDSCAPE BEDS AND IN COMMON TRENCHES WHEREVER POSSIBLE.
14. INSTALL ALL PIPE AND CONTROL WIRE, WHICH RUNS UNDER PAVING, WITHIN SCH. 40 PVC SLEEVES 4" DIA. MINIMUM SIZE AS REQUIRED TO ALLOW INSTALLATION WITHOUT BINDING. PROVIDE (1) SLEEVE PER PIPE. PROVIDE SEPARATE SLEEVES FOR CONTROL WIRE.
15. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE FOR COMPLETE DRAINAGE OF THE MAINLINES BY INSTALLING MANUAL DRAINS AS INDICATED ON PLAN AND AT ALL SYSTEM LOW POINTS.
16. PIPING SHALL BE COMPLETELY FLUSHED OF FOREIGN PARTICLES BEFORE ATTACHING IRRIGATION COMPONENTS AND DRAIN VALVES.
17. AFTER FLUSHING, AND WHEN ALL VALVES AND QUICK COUPLERS ARE IN PLACE, ALL MAIN SUPPLY LINES SHALL BE TESTED AT 100 POUNDS PER SQUARE INCH (100 PSI) WITH VALVES CLOSED. MAINTAIN PRESSURE FOR A PERIOD OF NOT LESS THAN (4) CONSECUTIVE HOURS. ALL JOINTS SHOWING LEAKS SHALL BE CLEANED, REMADE, AND TESTED.
18. AFTER FLUSHING, LATERAL PIPES SHALL BE TESTED WITH RISERS GAPPED AND DRAIN VALVES CLOSED. THE TEST SHALL BE MADE AT MAXIMUM OPERATING PRESSURE FOR A PERIOD OF NOT LESS THAN (1) HOUR. ALL JOINTS SHOWING LEAKS SHALL BE CLEANED, REMADE, AND TESTED. ALL TESTING SHALL BE DONE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING OVER PIPING.
19. OPERATIONAL TESTING: PERFORM OPERATIONAL TESTING AFTER HYDROSTATIC TESTING IS COMPLETED. DEMONSTRATE TO THE OWNER'S REPRESENTATIVE THAT THE SYSTEM MEETS COVERAGE REQUIREMENTS (100%) AND THAT AUTOMATIC CONTROLS FUNCTION PROPERLY.
20. AFTER COMPLETION OF GRADINGS AND SOD PLACEMENT, CAREFULLY ADJUST SPRINKLER HEADS TO MEET HEIGHT INDICATED ON DRAWINGS.

### SUBMITTALS

21. MATERIALS LIST: WITHIN (5) DAYS AFTER AWARD OF CONTRACT, SUBMIT TO OWNER'S REPRESENTATIVE (3) COPIES OF A COMPLETE MATERIAL LIST (PARTIAL LIST NOT ACCEPTABLE) OF ALL MATERIALS TO BE USED ON THE PROJECT, SPECIFYING MANUFACTURER, GRADE, TRADE NAME, CATALOG NUMBER, SIZE, ETC. THIS SHALL IN NO WAY BE CONSTRUED AS ALLOWING A SUBSTITUTION FOR ANY ITEM SPECIFIED ON THE PLANS. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE MAY BE REJECTED AND THE CONTRACTOR REQUIRED TO REMOVE THE MATERIALS AT HIS OWN EXPENSE.
- INSTALLATION AND PERFORMANCE OF APPROVED SUBSTITUTIONS ARE THE CONTRACTORS RESPONSIBILITY. ANY CHANGES REQUIRED FOR INSTALLATION OF ANY APPROVED SUBSTITUTION MUST BE MADE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE WITHOUT ADDITIONAL COST TO OWNER.
22. PRIOR TO SYSTEM INSTALLATION CONTRACTOR SHALL VERIFY AND SUBMIT TO OWNER'S REPRESENTATIVE IN WRITING, AVAILABLE FLOW AND PRESSURE AT POINT-OF-CONNECTION AS DESCRIBED IN SPECIFICATION #4 ABOVE.
  23. COMPLETE WARRANTY CARDS FOR AUTOMATIC CONTROLLER AND OTHER IRRIGATION MATERIAL (CONTROLLER KEYS, ETC.) SHALL BE DELIVERED TO OWNER.
  24. CONTRACTOR SHALL PREPARE AND ISSUE TO THE OWNER (AT COMPLETION OF THE INSTALLATION) AN ANNUAL CHART INDICATING LOCATION, OPERATING DATES, CYCLES, AND TIME FOR EACH ZONE.
  25. AS-BUILT IRRIGATION DRAWINGS: CONTRACTOR SHALL FURNISH AS-BUILTS OF THE COMPLETE IRRIGATION SYSTEM. PROCURE FROM OWNER'S REPRESENTATIVE DIGITAL COPIES OF CONTRACT DRAWINGS. CONSTRUCTION DRAWINGS SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES WHILE THE IRRIGATION SYSTEM IS BEING INSTALLED. CONTRACTOR SHALL MAKE A DAILY RECORD OF ALL WORK INSTALLED DURING EACH DAY. ACTUAL LOCATION OF VALVES AND ALL IRRIGATION AND DRAINAGE PIPING SHALL BE SHOWN ON THE PRINTS BY DIMENSIONS FROM EASILY IDENTIFIED PERMANENT FEATURES, SUCH AS BUILDINGS, CURBS, FENCES, WALKS OR PROPERTY LINES. DRAWINGS SHALL SHOW MANUFACTURER'S NAME AND CATALOG NUMBER. THE DRAWINGS SHALL BE TO SCALE AND ALL INDICATIONS SHALL BE NEAT. ALL INFORMATION NOTED ON THE PRINT SHALL BE TRANSFERRED TO THE COPIES BY CONTRACTOR AND ALL INDICATIONS SHALL BE RECORDED IN A NEAT, ORDERLY MANNER. THE RECORD COPIES SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE AT OR BEFORE FINAL ACCEPTANCE/APPROVAL OF THE PROJECT.

### GUARANTEES/FINAL ACCEPTANCE

26. CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE THE IRRIGATION SYSTEM FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. MANUFACTURER WARRANTIES SHALL ONLY EXCEED THIS GUARANTEE AND CONTRACTOR SHALL BE LIABLE FOR REPAIRS/REPLACEMENT OF FAILED MATERIAL/WORKMANSHIP.
- MAINTENANCE**
27. AFTER SYSTEM IS INSTALLED AND APPROVED, INSTRUCT OWNER'S DESIGNATED PERSONNEL IN COMPLETE OPERATION AND MAINTENANCE PROCEDURES. DRAIN ENTIRE SYSTEM AT END OF FIRST WATERING SEASON FOLLOWING INSTALLATION. TRAIN OWNER'S DESIGNATED PERSONNEL BY HAVING THEM ASSIST IN WINTERIZING PROCEDURE.

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**BID/CONSTRUCTION SET SPECIFICATIONS**

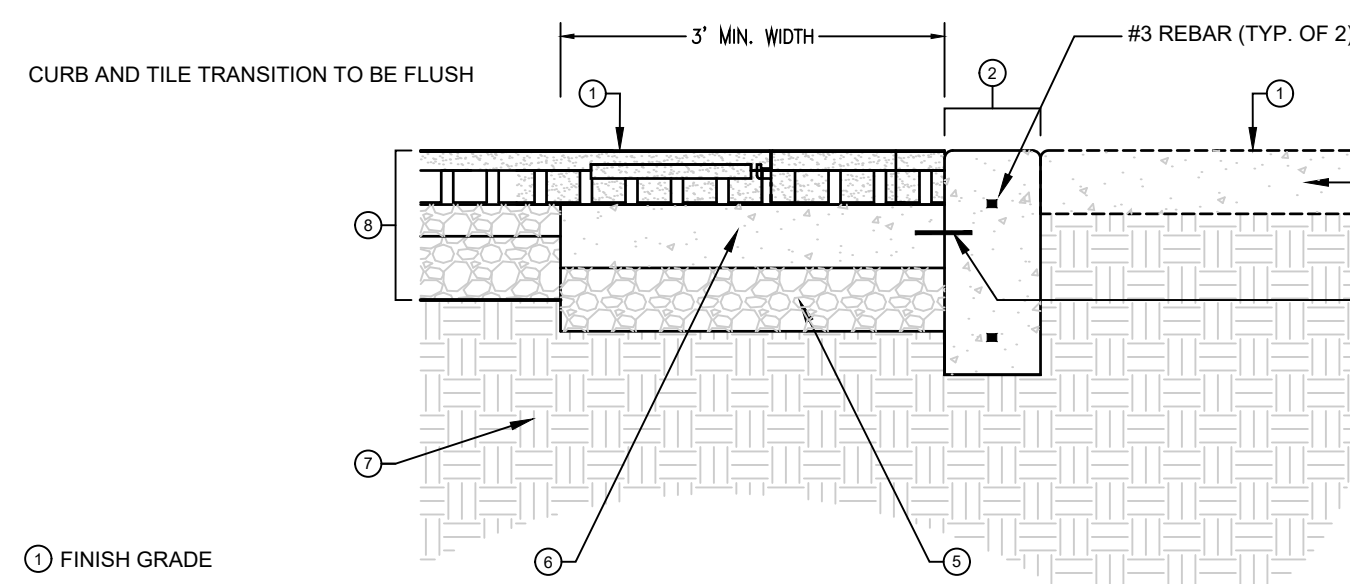
**JACK REVIGLIO MEMORIAL PARK**

**CITY OF SPARKS**

Washoe County  
Sparks, Nevada

No.	Revision	Date

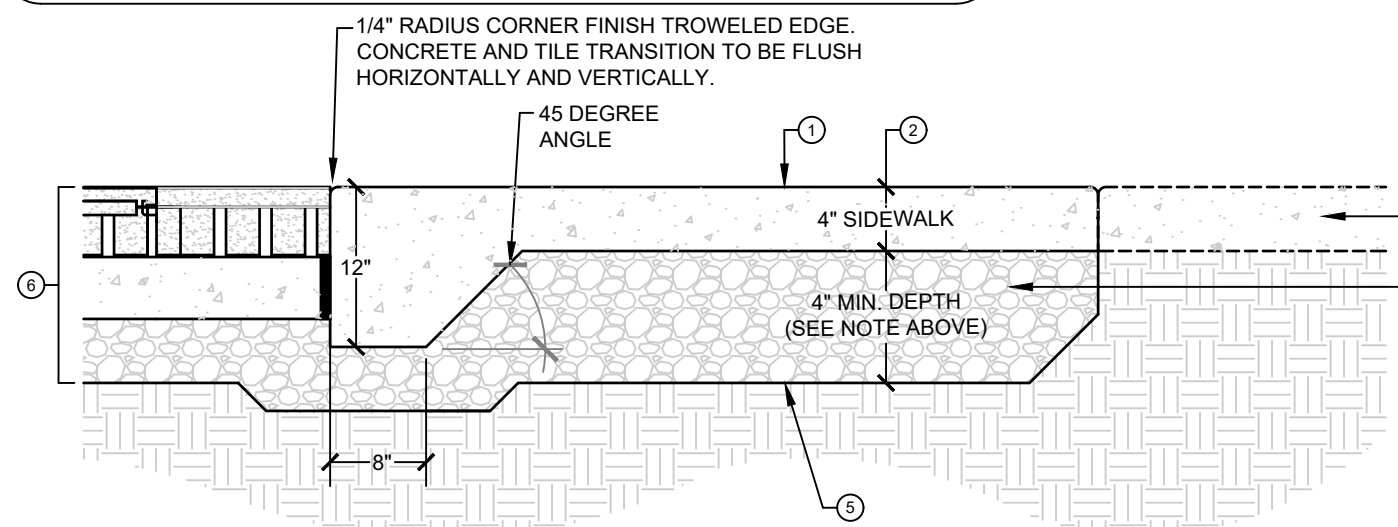
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Designed: DD  
Drawn: LE  
Checked: DD  
Date: 10/30/14



- ① FINISH GRADE
- ② 6x12 CONCRETE CURB W/ 2' RADIUS CORNER
- ③ ADJACENT EXISTING CONCRETE SIDEWALK (WHERE APPLICABLE)
- ④ REBAR DOWEL EVERY 3' ON CENTER
- ⑤ COMPACTED TYPE II BASE (4" MIN DEPTH) COMPACTED TO 95% RELATIVE COMPACTION. SEE NOTE ABOVE REGARDING DEPTH OF COMPACTED BASE AGGREGATE.
- ⑥ CONCRETE APRON: CONTRACTOR TO INSTALL 4" THICK X 3' WIDE CONCRETE APRON AT ALL EDGES. W/ CONTROL JOINTS EVERY 5' AND MATCH CURB OR SW CONTROL JOINTS
- ⑦ COMPACTED SUBGRADE SOILS, COMPACTED TO 90% RELATIVE COMPACTION (NATIVE SOILS)
- ⑧ RUBBER TILE INSTALLATION OVER COMPACTED BASE AGGREGATE PER DETAIL THIS SHEET

**A 6x12 CONCRETE CURB AT 3' CONCRETE APRON**

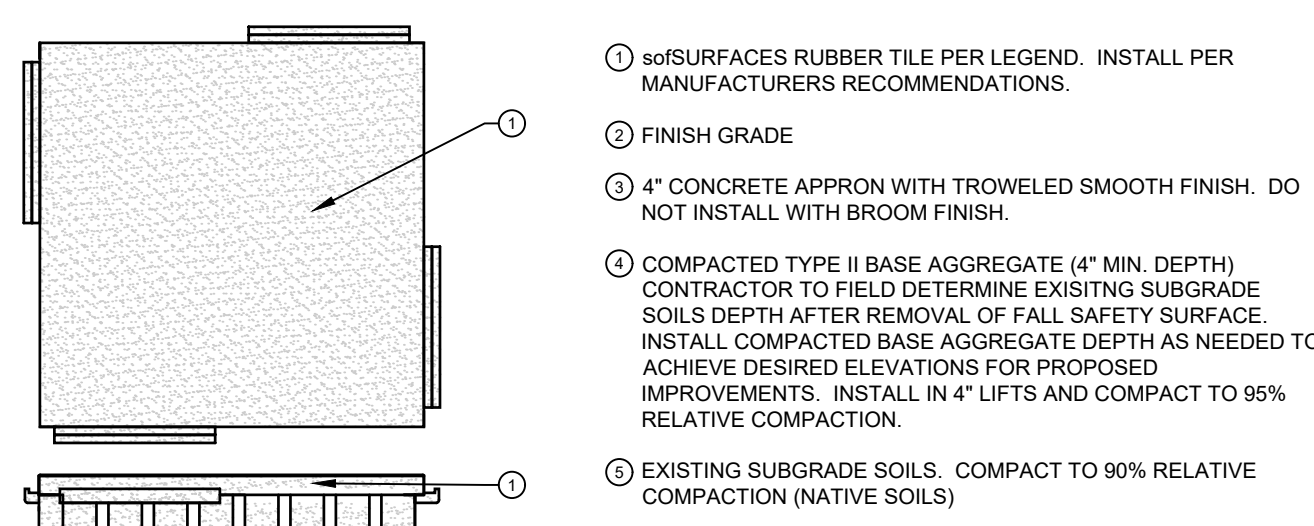
NOTE: CONTRACTOR TO ENSURE A 4" MINIMUM DEPTH OF COMPACTED BASE AGGREGATE UNDER ALL CONCRETE. EXCAVATE ADDITIONAL SUBGRADE SOILS IF NEEDED TO MEET THE 4" MINIMUM DEPTH. IF THE EXISTING SUBGRADE DEPTH REQUIRES ADDITIONAL FILL MATERIAL CONTRACTOR SHALL INSTALL BASE AGGREGATE AS REQUIRED TO FILL THE AREAS TO MEET PROPOSED ELEVATIONS. INSTALL BASE AGGREGATE IN 4" LIFTS AND COMPACT TO 95% RELATIVE COMPACTION.



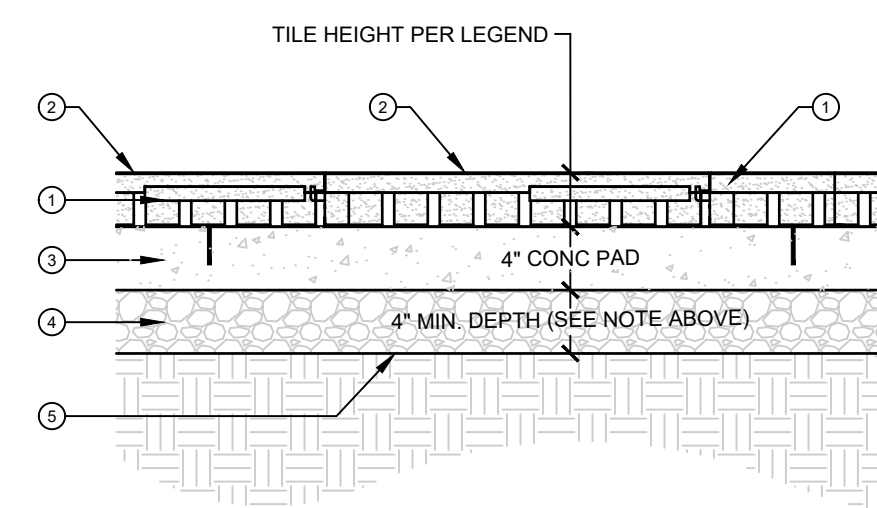
- ① FINISH GRADE
- ② 4" THICK CONCRETE SIDEWALK WITH THICKENED EDGE. INSTALL BROOM FINISH ON CONCRETE SIDEWALK SIDEWALK AND EDGE TO BE MONOLITHIC POUR (TYP.)
- ③ COMPACTED TYPE II BASE (4" MIN DEPTH) COMPACTED TO 95% RELATIVE COMPACTION. SEE NOTE ABOVE REGARDING DEPTH OF COMPACTED BASE AGGREGATE.
- ④ ADJACENT EXISTING CONCRETE
- ⑤ COMPACTED SUBGRADE SOILS. COMPACTED TO 90% RELATIVE COMPACTION.
- ⑥ RUBBER TILE INSTALLATION OVER CONCRETE APRON PER DETAIL A THIS SHEET.

**B CONCRETE SIDEWALK THICKENED EDGE (RUBBER TILES)**

NOTE: CONTRACTOR TO ENSURE A 4" MINIMUM DEPTH OF COMPACTED BASE AGGREGATE UNDER ALL CONCRETE. EXCAVATE ADDITIONAL SUBGRADE SOILS IF NEEDED TO MEET THE 4" MINIMUM DEPTH. IF THE EXISTING SUBGRADE DEPTH REQUIRES ADDITIONAL FILL MATERIAL CONTRACTOR SHALL INSTALL BASE AGGREGATE AS REQUIRED TO FILL THE AREAS TO MEET PROPOSED ELEVATIONS. INSTALL BASE AGGREGATE IN 4" LIFTS AND COMPACT TO 95% RELATIVE COMPACTION.

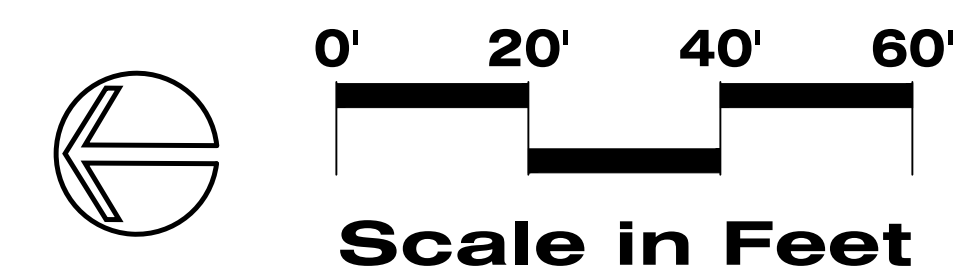
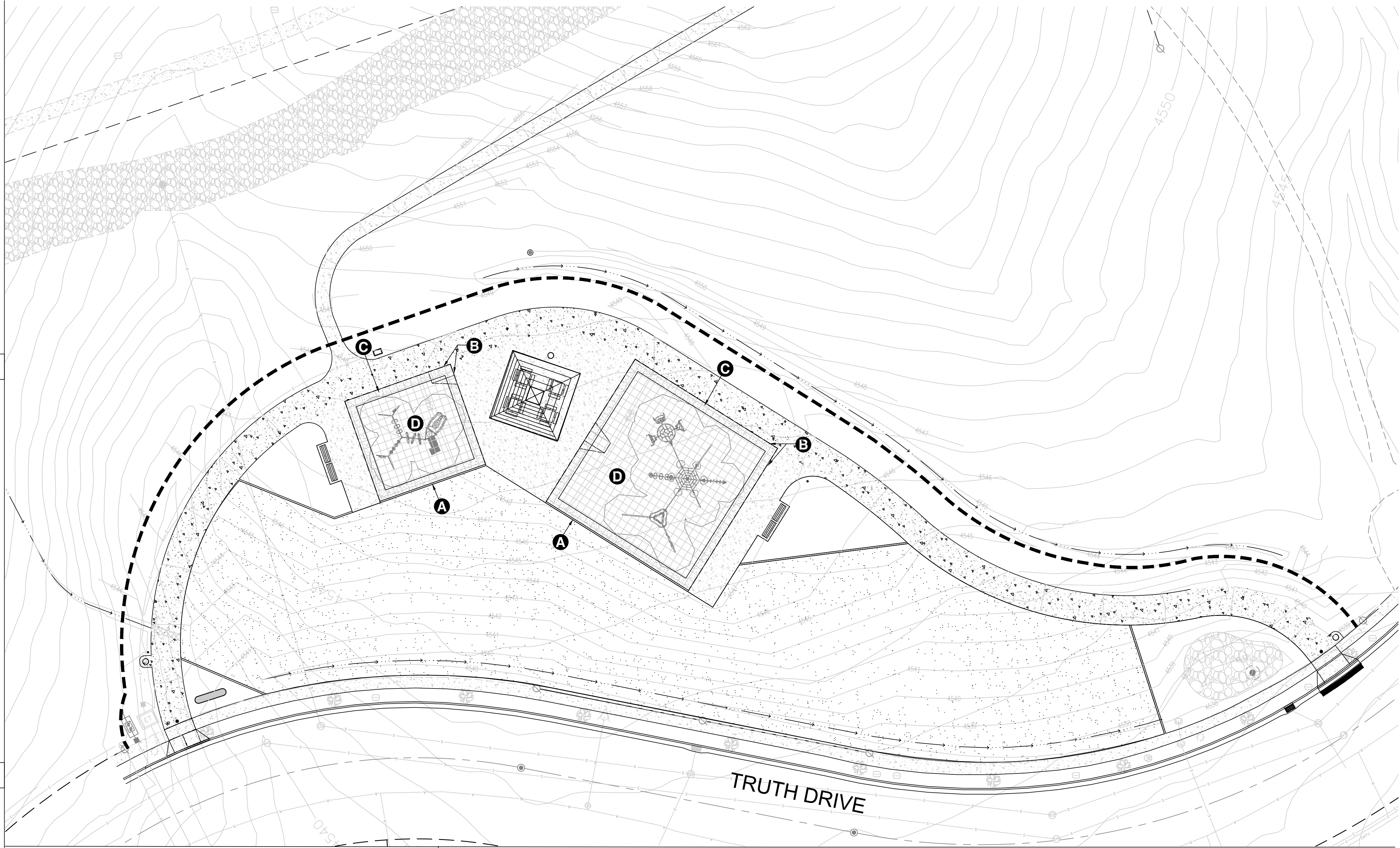


- ① SURFACES RUBBER TILE PER LEGEND. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
- ② FINISH GRADE
- ③ 4" CONCRETE APRON WITH TROWELED SMOOTH FINISH. DO NOT INSTALL WITH BROOM FINISH.
- ④ COMPACTED TYPE II BASE AGGREGATE (4" MIN. DEPTH) CONTRACTOR TO FIELD DETERMINE EXISTING SUBGRADE SOILS DEPTH AFTER REMOVAL OF FALL SAFETY SURFACE. INSTALL COMPACTED BASE AGGREGATE DEPTH AS NEEDED TO ACHIEVE DESIRED ELEVATIONS FOR PROPOSED IMPROVEMENTS. INSTALL IN 4" LIFTS AND COMPACT TO 95% RELATIVE COMPACTION.
- ⑤ EXISTING SUBGRADE SOILS. COMPACT TO 90% RELATIVE COMPACTION (NATIVE SOILS)



- ① SURFACES RUBBER TILE PER LEGEND. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
- ② FINISH GRADE
- ③ SURFACES PROVIDED RUBBER SHEETING INSTALLED OVER GEOTEXTILE FABRIC
- ④ COMPACTED TYPE II BASE AGGREGATE (4" MIN. DEPTH) CONTRACTOR TO FIELD DETERMINE EXISTING SUBGRADE SOILS DEPTH AFTER REMOVAL OF FALL SAFETY SURFACE. INSTALL COMPACTED BASE AGGREGATE DEPTH AS NEEDED TO ACHIEVE DESIRED ELEVATIONS FOR PROPOSED IMPROVEMENTS. INSTALL IN 4" LIFTS AND COMPACT TO 95% RELATIVE COMPACTION.
- ⑤ EXISTING SUBGRADE SOILS. COMPACT TO 90% RELATIVE COMPACTION (NATIVE SOILS)

**C RUBBER TILES ON CONCRETE APRON**



**D RUBBER TILES OVER BASE AGGREGATE**



**BID/CONSTRUCTION SET ALTERNATE #1**  
**JACK REVIGLIO MEMORIAL PARK**  
 CITY OF SPARKS  
 Washoe County  
 Nevada

No.	Revision Date



**SECTION 16000 - ELECTRICAL SPECIFICATIONS**

**1.0 GENERAL PROVISIONS**

CONSIDER THE GENERAL AND SPECIFIC CONDITIONS OF THE CONTRACT AS WELL AS ALL DRAWINGS AND SPECIFICATIONS AS A PART OF THE SCOPE OF WORK. WHERE REQUIREMENTS OF THIS DIVISION DO NOT COINCIDE WITH GENERAL AND SPECIAL CONDITIONS OF THE CONTRACT, THE STRICTER REQUIREMENTS WILL GOVERN.

**2.0 WORK INCLUDED**

PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, APPARATUS, ETC., INCLUDING ALL ITEMS REASONABLY INFERRED, AS REQUIRED FOR A COMPLETE INSTALLATION OF ANY ELECTRICAL WORK SHOWN WITHIN THESE ELECTRICAL CONSTRUCTION DOCUMENTS, OR DETAILED IN THE ELECTRICAL SPECIFICATIONS. ALL ELECTRICAL WORK SHALL BE PERFORMED BY LICENSED ELECTRICIANS AND TECHNICIANS. REPAIRS AND REPLACEMENTS FOR DEFECTIVE EQUIPMENT OR MATERIALS AS COVERED BY WARRANTY/GUARANTEES SHALL BE CONSIDERED WITHIN THE SCOPE OF WORK AND SHALL BE PERFORMED AT NO ADDITIONAL COST (EXCEPTION: LIGHTING LAMPS).

**3.0 RELATED WORK SPECIFIED ELSEWHERE**

ELECTRICAL CONSTRUCTION DOCUMENTS AND ELECTRICAL SPECIFICATION SECTION SHALL BE CONSIDERED AS A WHOLE. ALL ELECTRICAL WORK SHALL ACCOMMODATE THE REQUIREMENTS OF THIS DIVISION AND OTHER DIVISIONS, AND SHALL ENSURE PROPER PERFORMANCE OF ELECTRICAL WORK REQUIRED BY OTHER DIVISIONS.

**4.0 SITE INVESTIGATION**

ELECTRICAL CONTRACTOR SHALL THOROUGHLY INVESTIGATE ALL EXISTING CONDITIONS AT THE PROJECT SITE PRIOR TO SUBMITTING A BID.

**5.0 REGULATIONS AND STANDARDS**

ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF: THE NATIONAL ELECTRICAL CODE (NEC, NFPA-70), THE INTERNATIONAL BUILDING CODE (IBC), AND UTILITY WORK ORDER DRAWINGS. CONTRACTOR SHALL NOT OMIT ANY COMPONENT OR PORTION OF THESE ELECTRICAL CONSTRUCTION DOCUMENTS WHICH MAY EXCEED THE LISTED STANDARDS. NO ELECTRICAL WORK DETAILED IN THE ELECTRICAL CONSTRUCTION DOCUMENTS OR ELECTRICAL SPECIFICATION SECTION SHALL BE INTERPRETED TO PERMIT WORK WHICH FAILS TO CONFORM TO CODE REQUIREMENTS. WHERE CONFLICTS OCCUR, HIGHER STANDARDS SHALL GOVERN. RULINGS AND INTERPRETATIONS BY GOVERNING AGENCIES SHALL BE CONSIDERED A PART OF THIS DIVISION IF COMMONLY IMPOSED UPON THE TRADE PRIOR TO SUBMISSION OF BID.

**6.0 DRAWINGS AND SPECIFICATIONS**

6.1 ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS, AND INSTALLATION REQUIREMENTS OF ALL ELECTRICAL EQUIPMENT PRIOR TO 'ROUGH-IN' (INCLUDING RECEPTACLES, SWITCHES, CONDUITS, SWITCHBOARDS, PANELBOARD, ETC.). LOCATIONS SHALL BE VERIFIED FOR APPROPRIATE SPACE (LENGTH, WIDTH, AND HEIGHT) AND CLEARANCE PRIOR TO FABRICATING OR ORDERING ANY EQUIPMENT OR MATERIALS. ALL DISCREPANCIES SHALL BE REPORTED TO THIS ENGINEER IMMEDIATELY. FINAL CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS.

6.2 ELECTRICAL CONTRACTOR SHALL SUBMIT WRITTEN REQUEST-FOR-INFORMATION (RFI) DOCUMENTS TO THIS ENGINEER PRIOR TO PERFORMING ANY WORK WHERE AMBIGUITY ARISES. ELECTRICAL CONTRACTOR SHALL NOT PERFORM ANY FIELD MODIFICATIONS OR DEVIATIONS FROM THE ELECTRICAL CONSTRUCTION DOCUMENTS AND/OR SPECIFICATIONS WITHOUT APPROVED WRITTEN RESPONSE FROM THIS ENGINEER THROUGH AN APPROPRIATELY SUBMITTED RFI.

6.3 ELECTRICAL CONTRACTOR SHALL PERFORM ELECTRICAL WORK PER MANUFACTURER'S DIRECTIONS WHERE SAID DETAILS ARE NOT SPECIFICALLY COVERED OR INDICATED BY THESE ELECTRICAL CONSTRUCTION DOCUMENTS AND ELECTRICAL SPECIFICATIONS. WHEN CONFLICT ARISES, SECTION 12 OF THIS SPECIFICATION SHALL DICTATE PERFORMANCE.

6.4 ALL SERVICES RENDERED BY THIS ENGINEER ARE PROFESSIONAL OPINIONS AND RECOMMENDATIONS, ONLY. UNDER NO CIRCUMSTANCE IS IT THE INTENT OF THIS ENGINEER TO DIRECTLY CONTROL THE PHYSICAL ACTIVITIES OF THE CONTRACTOR OR HIS EMPLOYEES.

**7.0 MATERIALS**

7.1 APPEARANCE AND FINISH OF MATERIALS SHALL BE OF THE HIGHEST STANDARDS. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, OPERATING NORMALLY, AND OF HIGHEST AVAILABLE QUALITY. ANY DEFECTIVE MATERIALS SHALL BE IDENTIFIED AND REMOVED FROM SITE, IMMEDIATELY.

7.2 PROVIDE UNDERWRITERS LABORATORY (UL) LISTED MATERIALS AND EQUIPMENT WHEREVER STANDARDS FOR SAID ITEMS HAVE BEEN ESTABLISHED. UNLISTED DEVICES SHALL BE INSTALLED IN EQUIPMENT NORMALLY LISTED OR LABELED, AND SHALL CONFORM TO UL STANDARDS AS FAR AS POSSIBLE.

7.3 ALL CATALOG NUMBERS ARE GIVEN TO ASSIST IN IDENTIFYING THE BASIC REQUIREMENTS OF THIS PROJECT AND INDICATE THE MINIMUM LEVEL OF QUALITY. CATALOG NUMBERS WILL, GENERALLY, NOT SPECIFY COLOR AND ACCESSORIES. CONSULT OWNER AND ARCHITECT FOR COLOR AND ACCESSORY DETAILS.

**8.0 CLEAN WORK**

REGULARLY REMOVE DEBRIS FROM THE PROJECT SITE, AS REQUIRED, DURING CONSTRUCTION. CLEAN ALL RACEWAYS, FIXTURES, AND OTHER EQUIPMENT PRIOR TO FINAL ACCEPTANCE BY OWNER.

**9.0 CLOSING IN OF UNINSPECTED WORK**

ELECTRICAL CONTRACTOR SHALL NOT CLOSE IN OR CONCEAL ANY ELECTRICAL WORK PERFORMED PRIOR TO INSPECTION AND APPROVAL.

**10.0 IDENTIFICATION**

ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL PERMANENT PRINTED WEATHERPROOF LABELS AT ALL NEW ELECTRICAL EQUIPMENT LABELS SHALL INDICATE VOLTAGE, FEEDING PANEL NAME, AND CIRCUIT NUMBER(S). PROVIDE ALL AFFECTED PANELBOARDS WITH NEW ACCURATE TYPED DIRECTORY, INSTALLED UNDER CLEAR PLASTIC COVER.

**11.0 SUPPORTS AND FASTENINGS**

ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL SUPPORTS AND ANCHORS FOR CABINETS, BOXES, CONDUITS AND OTHER EQUIPMENT. SUPPORTS AND ANCHORS SHALL BE SECURELY ATTACHED TO MOUNTING SUBSTRATE USING: CONCRETE PRESET INSERTS, EXPANSION BOLTS, POWDER ACTUATED FASTENERS, BEAM CLAMPS, OR BOLTS. ALL SUPPORTS AND HANGARS SHALL BE RATED FOR FIVE (5) TIMES THE ACTUAL LOAD.

**12.0 TRADE COORDINATION**

ELECTRICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL INSTALLATION WORK WITH ALL OTHER TRADES. REFER TO PLANS AND SPECIFICATIONS OF OTHER TRADES FOR COORDINATION. ELECTRICAL CONTRACTOR SHALL CONSULT OTHER CONTRACTORS TO ENSURE TIMELY AND APPROPRIATE CONNECTIONS TO EQUIPMENT.

**13.0 RECORD DRAWINGS**

ELECTRICAL CONTRACTOR SHALL PROVIDE THE OWNER WITH A NEAT AND COMPLETE SET OF 'AS-BUILT' RECORD DRAWINGS WITHIN TEN (10) DAYS OF FINAL ACCEPTANCE OF WORK. RECORD DRAWINGS SHALL INDICATE ALL DEVIATIONS FROM THE ELECTRICAL CONSTRUCTION DOCUMENTS, LOCATIONS OF STUB-OUTS AND CONCEALED ITEMS (PER FIELD DIMENSIONS). RECORD DRAWINGS SHALL BE OF EQUAL QUALITY AS THESE ELECTRICAL CONSTRUCTION DOCUMENTS (INCLUDING SIZE, CLARITY AND MEDIUM). ALL MAINTENANCE AND OPERATING MANUALS AS WELL AS ANY ADDITIONAL INSTRUCTIONS, SHALL BE CONSIDERED A PART OF THE RECORD DRAWINGS.

**14.0 ELECTRICAL SUBMITTALS**

ELECTRICAL CONTRACTOR SHALL SUBMIT ELECTRONIC (.pdf) COPIES OF FACTORY SHOP-DRAWINGS FOR ALL ELECTRICAL COMPONENTS PROPOSED FOR THIS PROJECT TO THE OWNER. ELECTRICAL CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE OWNER OF ALL PROVIDED MANUFACTURER'S DATA SHEETS ELECTRICAL EQUIPMENT AND LIGHTING FIXTURES. ANY PROPOSED SUBSTITUTIONS OF SPECIFIED EQUIPMENT SHALL MEET THE PROJECT REQUIREMENTS EXACTLY, AND SHALL BE OF EQUAL OR GREATER QUALITY IN ALL RESPECTS, AND REQUIRE THIS ENGINEER'S APPROVAL.

**15.0 OWNERSHIP OF DOCUMENTS**

THESE ELECTRICAL CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, CONSTITUTE THE INTELLECTUAL PROPERTY OF JENSEN ENGINEERING, INC. ALL RIGHTS RESERVED.

**16.0 CONDUCTORS**

ALL CONDUCTORS SHALL CONFORM TO THE REQUIREMENTS STATED UNDER SECTION 5.0 OF THIS ELECTRICAL SPECIFICATION, AND UL LISTING STANDARDS. ALL CONDUCTORS SHALL BE COPPER STANDARD AMERICAN WIRE GAUGE, SOFT-DRAWN, CONCEALED IN CONDUIT. CONDUCTORS SIZED #10 AWG AND SMALLER SHALL BE SOLID OR STRANDED. CONDUCTORS SIZED #8 AWG AND LARGER SHALL BE STRANDED. MINIMUM WIRE SIZE SHALL BE #2 AWG, UNLESS OTHERWISE NOTED. CONDUCTOR INSULATION SHALL BE 600 VOLT, 90° C, RATED TYPE THHN/THWN-2. CONDUCTORS SHALL BE CONTINUOUS FROM ORIGIN TO EQUIPMENT WITHOUT SPLICES, PER NEC. WHERE REQUIRED, SPLICES SHALL OCCUR IN SPLICE BOXES PER THIS SPECIFICATION. WIRE/CABLE SHALL BE HANDLED TO AVOID DAMAGE TO BOTH CONDUCTOR AND INSULATION. WIRE/CABLE SHALL BE DELIVERED IN STANDARD COILS OR REELS WITH SUITABLE PROTECTION FROM WEATHER AND DAMAGE DURING STORAGE, HANDLING, AND INSTALLATION. ELECTRICAL CONTRACTOR SHALL COLOR CODE CONDUCTORS CONSISTENTLY THROUGHOUT THE PROJECT ACCORDING TO THE FOLLOWING OUTLINE:

VOLTAGE	PHASE A	PHASE B	PHASE C	NEUTRAL	GROUND
120/208V	BLACK	RED	BLUE	WHITE	GREEN
277/480V	BROWN	ORANGE	YELLOW	WHITE	GREEN

**17.0 CONDUIT SYSTEMS**

17.1 CONDUIT AND CONDUCTOR ROUTES SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR AT THE TIME OF INSTALLATION AND ARE SHOWN ON THESE PLANS FOR EXPLANATIVE PURPOSES. PROVIDE AND INSTALL GREEN INSULATED GROUNDING WIRE IN ALL CONDUITS.

17.2 TYPE RMC AND IMC (RIGID METALLIC CONDUIT & INTERMEDIATE METALLIC CONDUIT): ALL LOCATIONS EXPOSED TO PHYSICAL DAMAGE OR EXTERIOR ELEMENTS, INCLUDING EXPOSED ON ROOF, SHALL BE RIGID GALVANIZED STEEL (OR INTERMEDIATE METALLIC CONDUIT).

17.3 TYPE RNC (RIGID NON-METALLIC CONDUIT/PVC SCHEDULE 40) SHALL BE PERMITTED FOR ALL UNDERGROUND LOCATIONS. TYPE EMT CONDUIT SHALL BE PERMITTED FOR ALL INTERIOR LOCATIONS WHERE NOT SUBJECT TO PHYSICAL DAMAGE. ALL INTERIOR HOMERUNS SHALL BE TYPE EMT. ALL FITTINGS SHALL BE STEEL.

17.4 TYPE FMC (INCLUDING TYPE MC CABLE) CONDUIT MAY ONLY BE USED IN INDOOR CONCEALED LOCATIONS AND SHALL NOT OPERATE MORE THAN ONE CIRCUIT.

17.5 TYPE LPMC SHALL BE USED FOR SHORT CONNECTIONS TO MOTORS AND EQUIPMENT IN WET OR OUTDOOR LOCATIONS.

**18.0 TERMINATIONS AND SPLICES**

CONNECTORS SHALL BE SCOTCHLOK OR APPROVED EQUAL FOR WIRE SIZES #4 AWG THROUGH #8 AWG. USE MECHANICAL SCREW TYPE CONNECTIONS FOR ALL OTHERS.

**19.0 SWITCHGEAR AND DISTRIBUTION EQUIPMENT**

ELECTRICAL EQUIPMENT SHALL BE AS MANUFACTURED BY EATON, GE, SIEMENS, OR SQUARE-D. SERVICE EQUIPMENT SHALL BE FULLY ENCLOSED, FACTORY ASSEMBLED.

**20.0 GROUNDING AND BONDING**

PROVIDE AND INSTALL GROUNDING FOR ALL EQUIPMENT AND SYSTEM NEUTRAL IN ACCORDANCE WITH NEC ARTICLE 250.

**21.0 FINAL OBSERVATION**

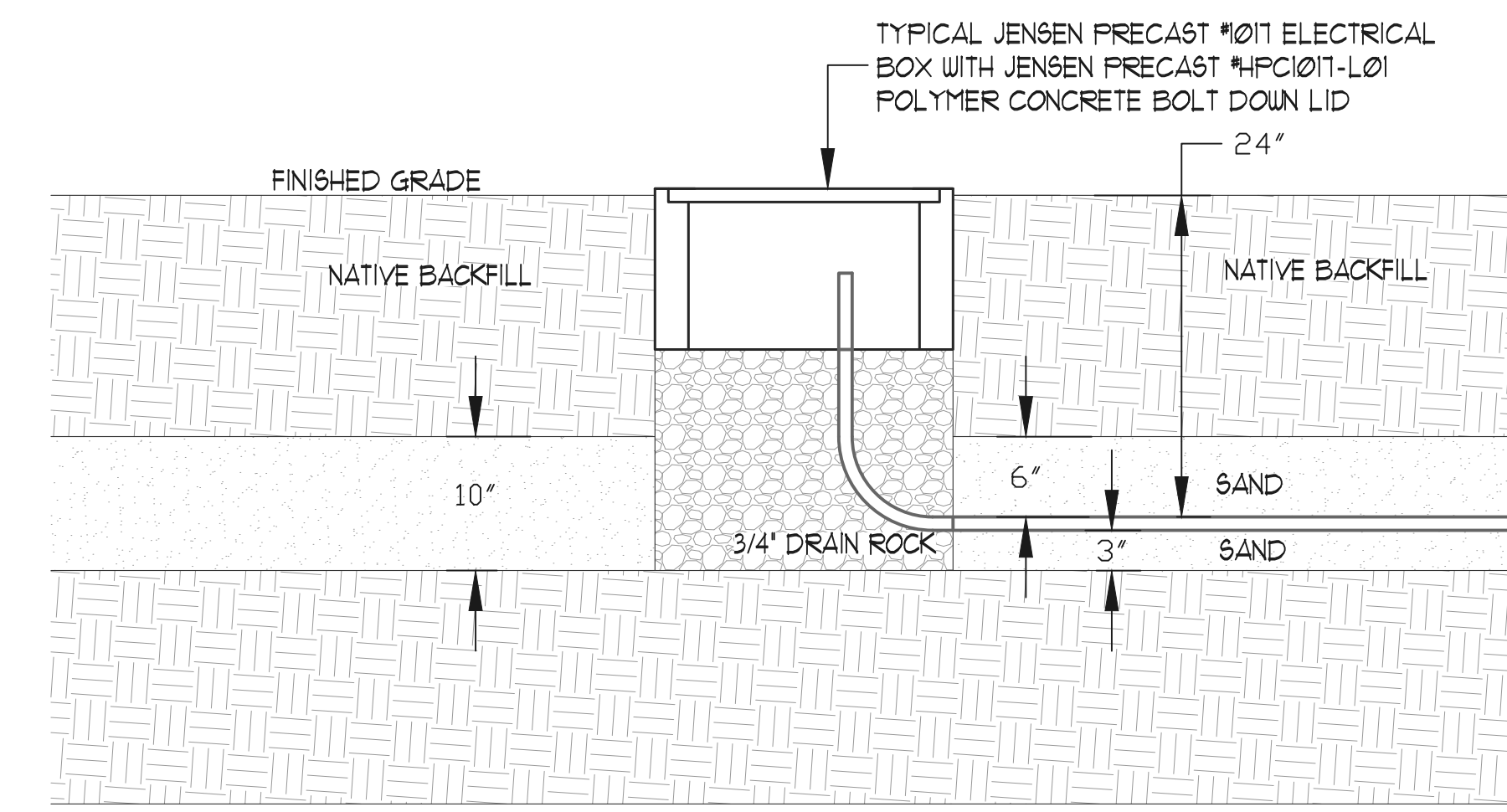
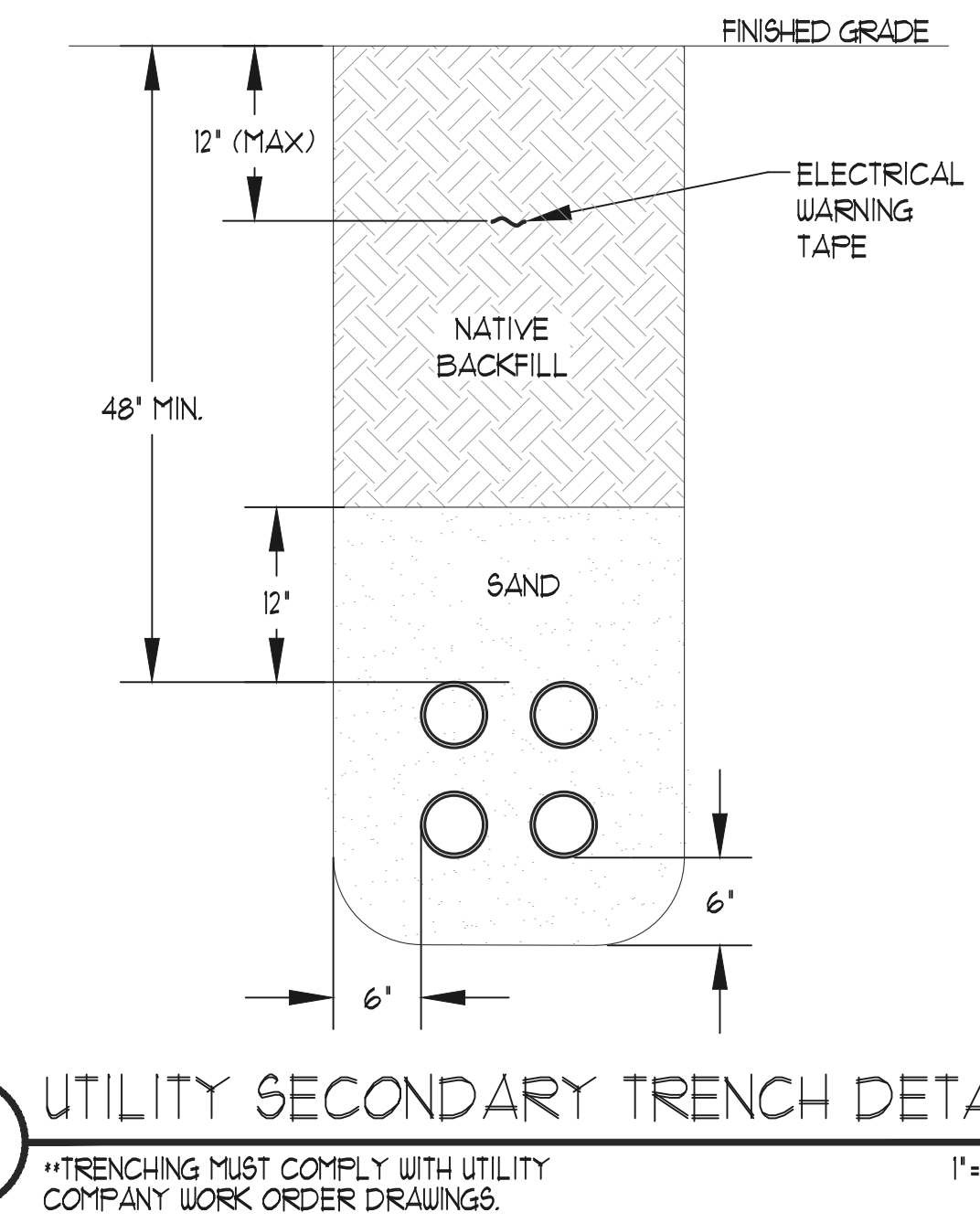
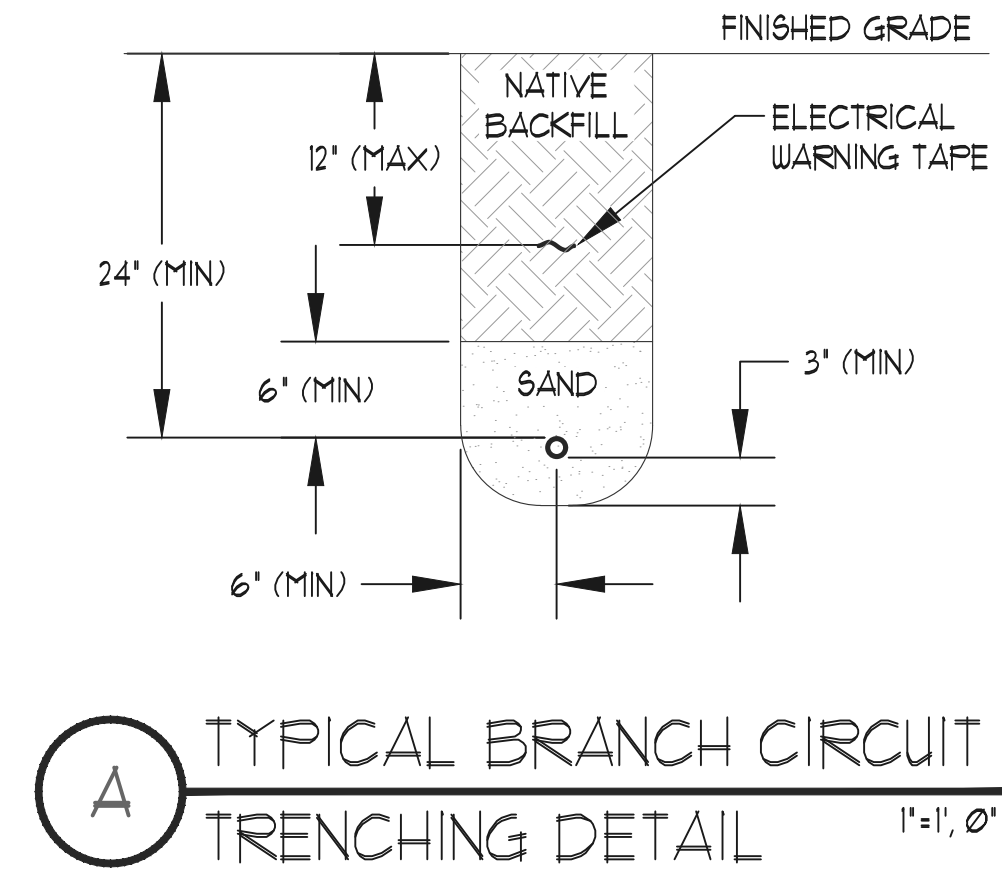
UPON ACCEPTANCE OF OPERATION AND MAINTENANCE INSTRUCTIONS AND RECORD DRAWINGS, THIS ENGINEER SHALL MAKE A FINAL OBSERVATION OF THE PROJECT AND GENERATE A LIST OF UNACCEPTABLE ITEMS. FINAL PROJECT ACCEPTANCE SHALL NOT BE CONSIDERED COMPLETE UNTIL ALL ITEMS IN THIS LIST HAVE BEEN CORRECTED.

**22.0 WARRANTY/GUARANTEES**

ELECTRICAL CONTRACTOR SHALL WARRANT AND GUARANTEE THE ELECTRICAL WORK TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. LIGHTING LAMPS ARE EXEMPT FROM THIS REQUIREMENT, HOWEVER, LAMPS SHALL BE NEW AND IN PERFECT OPERATING CONDITION AT THE TIME OF FINAL ACCEPTANCE.

**ELECTRICAL SYMBOLS AND NOMENCLATURE**

SYMBOL	DESCRIPTION
	SINGLE-OUTLET RECEPTACLE
	DOUBLE-OUTLET 'DUPLEX' RECEPTACLE
	THREE-PHASE (3Ø) RECEPTACLE (CONFIGURATION AS NOTED)
	QUADRUPLE-OUTLET 'QUAD' RECEPTACLE
	SPECIAL RECEPTACLE (VOLTAGE/CONFIGURATION AS NOTED)
	JUNCTION BOX
	FLOOR MOUNT RECEPTACLE
	SAFETY DISCONNECT SWITCH (SIZE/VOLTAGE/CONFIGURATION AS NOTED)
	COMBINATION SAFETY SWITCH/MAGNETIC STARTER
	TELEPHONE/DATA JUNCTION BACKBOX
	SINGLE-POLE TOGGLE SWITCH (VOLTAGE AS REQUIRED)
	MULTI-STATION 'THREE-WAY' TOGGLE SWITCH (VOLTAGE AS REQUIRED)
	OCCUPANCY SENSING (MOTION SENSOR) SWITCH
	PANELBOARD (NAME/AMP/PHASE/VOLTAGE/CONFIGURATION AS NOTED)
	TRANSFORMER (NAME/KVA RATING/PHASE/VOLTAGE AS NOTED)
	MECHANICAL EQUIPMENT INDICATOR
	SHUNT TRIP STATION
	MOTOR (HORSEPOWER AS NOTED)
	1-ø 1-POLE CIRCUIT PATH (1/2" CONDUIT, (2) - #2 Cu, UN) ABOVE FLOOR
	1-ø 2-POLE CIRCUIT PATH (1/2" CONDUIT, (3) - #2 Cu, UN) ABOVE FLOOR
	3-ø 3-POLE CIRCUIT PATH (1/2" CONDUIT, (4) - #2 Cu, UN) ABOVE FLOOR
	RETURN CIRCUIT TO PANEL 'HOMERUN' (CIRCUIT AS NOTED) ABOVE FLOOR
	1-ø 1-POLE CIRCUIT PATH (1/2" CONDUIT, (2) - #2 Cu, UN) BELOW FLOOR
	1-ø 2-POLE CIRCUIT PATH (1/2" CONDUIT, (3) - #2 Cu, UN) BELOW FLOOR
	3-ø 3-POLE CIRCUIT PATH (1/2" CONDUIT, (4) - #2 Cu, UN) BELOW FLOOR
	RETURN CIRCUIT TO PANEL 'HOMERUN' (CIRCUIT AS NOTED) BELOW FLOOR
	CIRCUIT BREAKER (AMPS/POLES AS NOTED)
	FUSE (AMPS/POLES AS NOTED)
	SHEET NOTE INDICATOR
	EQUIPMENT NOTE INDICATOR
	REVISION 'DELTA' NOTE INDICATOR
	FEEDER NOTE INDICATOR
	DETAIL/SHEET NOTE INDICATOR
	48" MOUNTING HEIGHT AFF. (ACTUAL HEIGHT AS NOTED) ABOVE FINISHED FLOOR
	ABOVE FINISHED GRADE
	AUTOMATIC TRANSFER SWITCH
	CONDUIT
	CIRCUIT BREAKER
	CEILING
	WEATHER PROOF
	FIRE ALARM CONTROL PANEL
	FURNISHED BY OTHERS
	GROUND FAULT INTERRUPTING TYPE
	HIGH INTENSITY DISCHARGE
	LIGHTING
	LOW VOLTAGE
	MAIN CIRCUIT BREAKER
	MAIN SWITCH BOARD
	TRANSFORMER
	NIGHT LIGHT
	TYPICAL
	UNDER GROUND
	UNLESS OTHERWISE NOTED
	EXISTING
	NEW
	FUTURE
	DEMOLISH



**C HANDHOLE DETAIL**  
1" = 1'-0"  
LABEL AND BOND FULL-BOX COVER ACCORDING TO NEC ARTICLE 314.30(D).

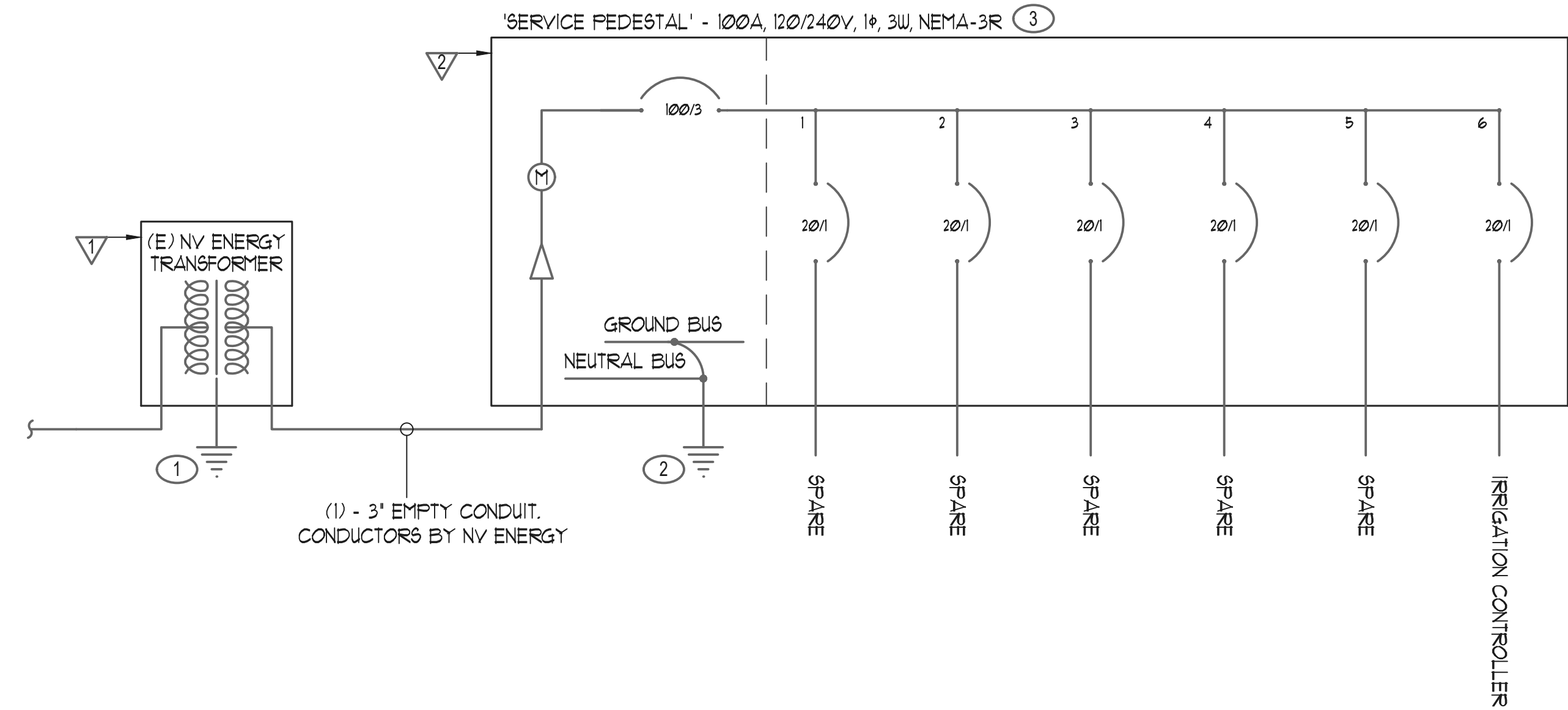
**JENSEN ENGINEERING INC.**  
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**PROFESSIONAL ENGINEER**  
GERALD G. JENSEN  
Exp. 8/30/21  
ELECTRICAL  
No. 10443  
02/12/2021

JACK REVIGLIO MEMORIAL PARK  
CITY OF SPARKS  
CITY OF SPARKS  
WASHOE COUNTY

REVISIONS	DESCRIPTION	DATE	BY
No.			
1			
2			
3			
4			
5			

DRAWN BY: MMA  
DESIGNED BY: GGJ  
CHECKED: GGJ  
DATE: 11-02-18  
JE PROJ NO: T197PJD  
SHEET NUMBER



(1) - 3' EMPTY CONDUIT. CONDUCTORS BY NV ENERGY

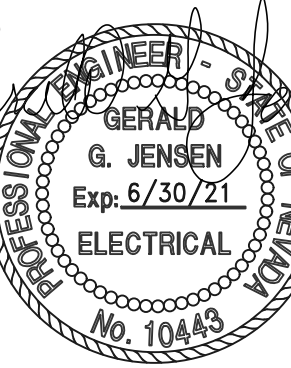
**A** SINGLE-LINE DIAGRAM  
E2 NOT TO SCALE

**NOTES:** (SINGLE-LINE DIAGRAM, ONLY)

- ① EXISTING NV ENERGY TRANSFORMER SECONDARY GROUND ROD.
- ② GROUND MAIN ELECTRICAL SERVICE PER NEC ARTICLE 250-C INCLUDING:
  1. 30' - #3/0 CU CONCRETE ENCASED 'UFER' GROUNDING ELECTRODE.
  2. #3/0 CU CONNECTION TO EACH METAL PIPING SYSTEM.
  3. #3/0 CU CONNECTION TO BUILDING STRUCTURAL STEEL.
  4. #6 CONNECTION TO THE TELEPHONE TERMINAL CABINET.
  5. #3/0 CU MINIMUM MAIN BONDING JUMPER.
- ③ TESCO CONTROLS - TESCOFLEX SINGLE METER SERVICE UTILITY PEDESTAL - #24-200 OR APPROVED EQUIVALENT ELECTRICAL SERVICE PEDESTAL. 100A MAIN CIRCUIT BREAKER, 120/240V, 1φ, 3W, N3R ENCLOSED MODULAR METER/MAIN SERVICE PEDESTAL. PROVIDE AND INSTALL COMPLETE WITH INTEGRAL 12 CIRCUIT PANEL ('SP1'), TIME CLOCK, PHOTOCCELL AND IRRIGATION CONTROLLER.

EQUIPMENT SCHEDULE		
EQP. NO.	EQUIPMENT DESCRIPTION	NOTES
∇	(E) NV ENERGY TRANSFORMER	COORDINATE WITH NV ENERGY
∇	(N) SERVICE PEDESTAL 'SP' - 100A, 120/240V, 1φ, 3W, N3R	TESCO

'SP-1' SCHEDULE			
POSITION NO.	LOAD DESCRIPTION	BREAKER SIZE	LOAD KVA
SP - 1	SPARE	20/1	0.00
SP - 2	SPARE	20/1	0.00
SP - 3	SPARE	20/1	0.00
SP - 4	SPARE	20/1	0.00
SP - 5	SPARE	20/1	0.00
SP - 6	IRRIGATION CONT.	20/1	0.25
TOTAL KVA =			0.25
@ 240V 1φ =			1.05 AMPERES



02/12/2021

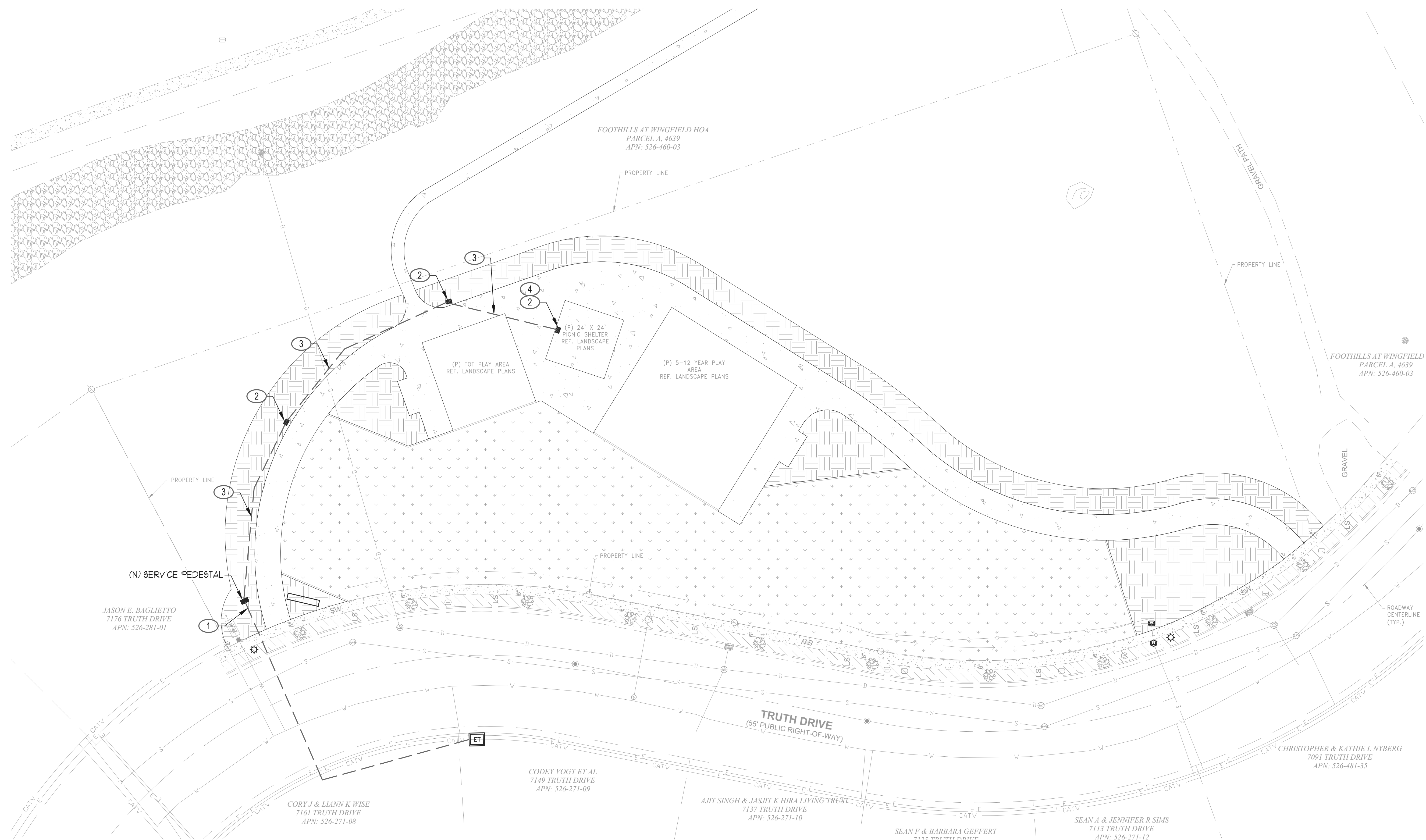
JACK REVIGLIO MEMORIAL PARK  
 CITY OF SPARKS  
 CITY OF SPARKS  
 WASHOE COUNTY

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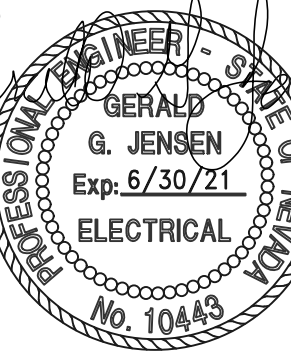
SHEET NUMBER

**E2**



**SHEET NOTES**

- 1 COORDINATE WITH GENERAL CONTRACTOR AND ELECTRICAL UTILITY SERVICE PROVIDER AS REQUIRED FOR INSTALLATION OF NEW UTILITY SECONDARY SERVICE ENTRANCE. PROVIDE AND INSTALL ONE 3" CONDUIT FROM UTILITY TRANSFORMER TO NEW MAIN ELECTRICAL SERVICE EQUIPMENT. CONDUIT SYSTEM SHALL COMPLY WITH ALL UTILITY STANDARDS AND WORK ORDER DRAWINGS. SEE DETAIL B/EI FOR UTILITY SECONDARY TRENCH DETAIL.
- 2 SEE DETAIL C/EI FOR TYPICAL HANDHOLE DETAIL.
- 3 COORDINATE WITH GENERAL CONTRACTOR AS REQUIRED FOR INSTALLATION OF ONE 1" CONDUIT WITH FULL STRING FROM METER/PEDESTAL LOCATION SHOWN TO NEW ELECTRICAL HANDHOLE FOR FUTURE CONNECTION OF SITE LIGHTING. EXTEND CONDUIT INTO HANDHOLE AND STUB FOR FUTURE CONNECTION. PROVIDE AND INSTALL ELECTRICAL HANDHOLE, EXTENSIONS, LID, ETC. AS REQUIRED. SEE DETAIL A/EI FOR TYPICAL BRANCH CIRCUIT TRENCH DETAIL.
- 4 COORDINATE PICNIC SHELTER LIGHTING WITH CITY REPRESENTATIVE IF SHELTER ALTERNATE #2 IS SELECTED. CONTRACTOR SHALL TERMINATE CONDUIT IN HANDHOLE IN LOCATION DESIGNATED BY CITY REPRESENTATIVE IF ALTERNATE #2 IS NOT APPROVED.



02/12/2021

**JACK REVIGLIO MEMORIAL PARK**  
**CITY OF SPARKS**  
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**WASHOE COUNTY**

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SHEET NUMBER

**E3**