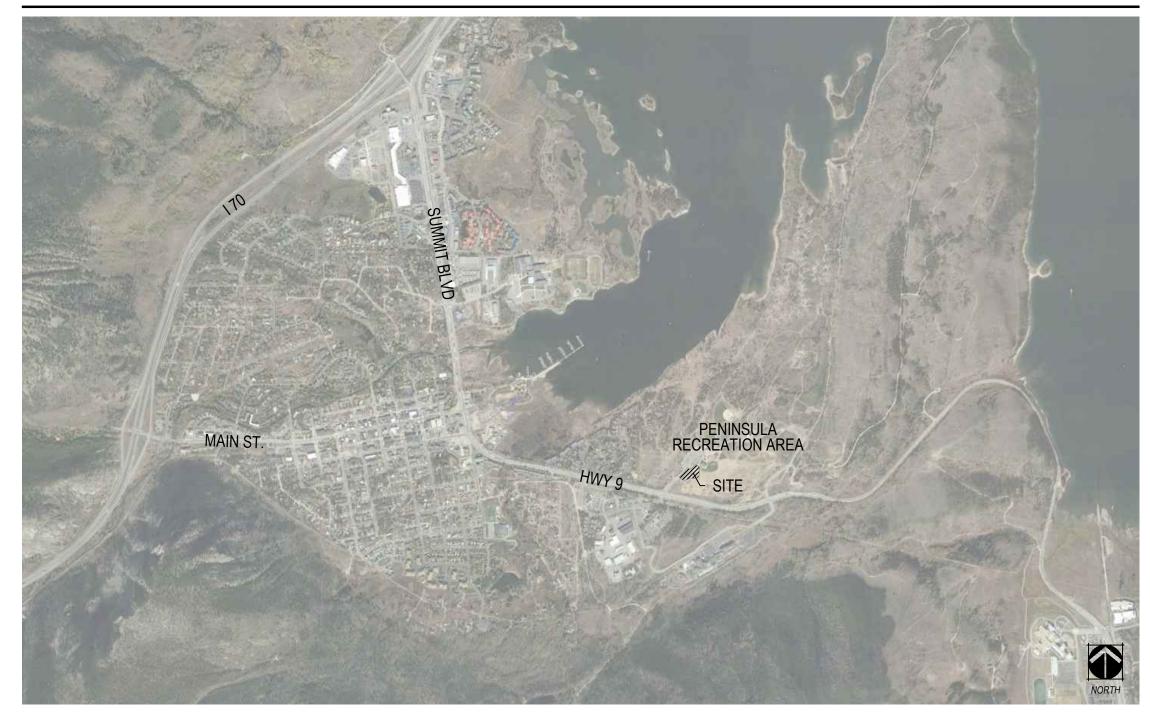
FRISCO PENINSULA RECREATION AREA PHASE II - PARKING LOT EXPANSION

CONSTRUCTION DOCUMENTS TOWN OF FRISCO, STATE OF COLORADO 80443

VICINITY MAP



OWNER



TOWN OF FRISCO 1 MAIN STREET FRISCO, CO 80443 TOWN OF FRISCO
CONTACT: DIANE MCBRIDE
DIRECTOR OF RECREATION & ASSISTANT TOWN MANAGER P: 970.668.2559

CIVIL ENGINEER



MARTIN / MARTIN

BONSULTING ENGINEERS

MARTIN & MARTIN

101 FAWCETT ROAD

SUITE 260

AVON, CO 81620
P: 970.926.6007

LANDSCAPE ARCHITECT



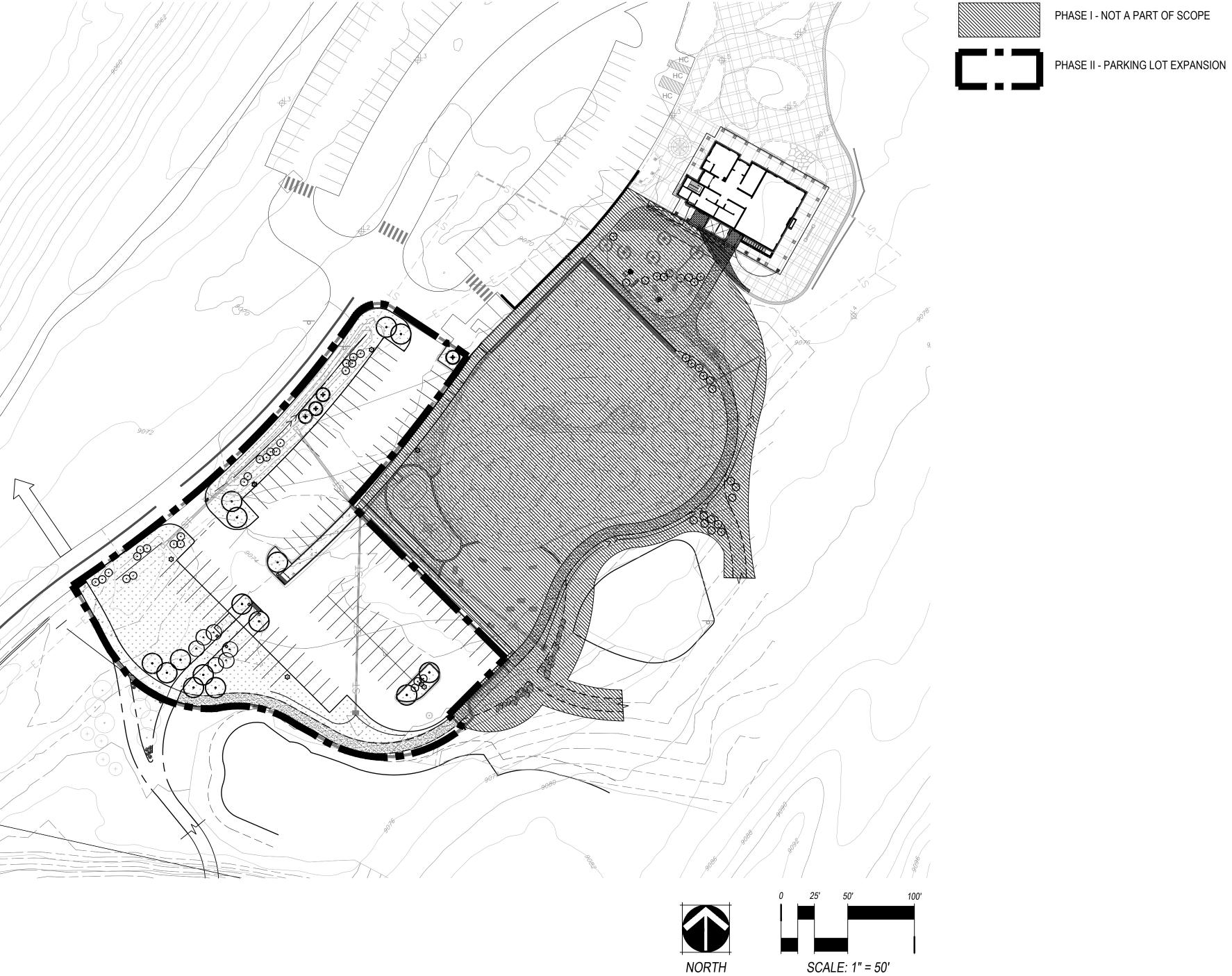
IRRIGATION



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CIVIL ENGINEER MARTIN/MARTIN CONSULTING ENGINEERS, INC. 0101 FAWCETT ROAD, STE 260 AVON, CO 81620 PHONE: 970-926-6007 CONTACT: MARK LUNA, P.E.

FRISCO PENINSULA RECREATION AREA

TOWN OF FRISCO, COUNTY OF SUMMIT, STATE OF COLORADO

MARTIN/MARTIN, INC. GENERAL NOTES:

- IN ADDITION TO THE TOWN OF FRISCO [T.O.F.] STANDARD NOTES, THE FOLLOWING SHALL APPLY:
- ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE T.O.F. STANDARDS AND SPECIFICATIONS [LATEST REVISION]. ALL WATER & SEWER MAIN CONSTRUCTION SHALL BE SUBJECT TO T.O.F. INSPECTION.
- 2. THE CONTRACTOR SHALL HAVE ONE [1] SIGNED COPY OF PLANS APPROVED BY THE T.O.F. AS ONE COPY OF THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.
- CONTRACTOR SHALL NOTIFY THE ENGINEER, OWNER AND THE T.O.F. [48]-HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH THE T.O.F. ENGINEERING INSPECTOR [48]-HOURS PRIOR TO
- 4. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE, INCLUDING, BUT NOT LIMITED TO, SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK, TRENCH EXCAVATION AND SHORING, TRAFFIC CONTROL AND SECURITY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- 5. THE T.O.F./OWNER/ENGINEER CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
- ALL TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SAFETY OF WORKERS PROVIDED FOR AS REQUIRED BY THE MOST RECENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION [OSHA] "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION." THESE REGULATIONS ARE DESCRIBED IN SUBPART P, PART 1926 OF THE CODE OF FEDERAL REGULATIONS. SHEETING AND SHORING SHALL BE UTILIZED WHERE NECESSARY TO PREVENT ANY EXCESSIVE WIDENING OR SLOUGHING OF THE TRENCH WHICH MAY BE DETRIMENTAL TO HUMAN SAFETY, TO THE PIPE BEING PLACED, OR TO ANY EXISTING SITE IMPROVEMENTS OR STRUCTURES. THE CONTRACTOR MAY BE REQUIRED TO USE AN APPROVED PILING INSTEAD OF SHEETING AND SHORING.
- ALL TRENCH BACKFILL AND SUBGRADE PREPARATION SHALL BE TESTED TO ENSURE COMPLIANCE WITH GEOTECH STANDARDS AND SHALL BE TESTED AT T.O.F. REQUIRED FREQUENCIES BY A T.O.F. APPROVED PRIVATE SOILS TESTING FIRM. TEST RESULTS SHALL BE SUBMITTED TO, REVIEWED, AND APPROVED BY, THE GEOTECHNICAL ENGINEER PRIOR TO INSTALLING APPROVED BACKFILL ON PREPARED SUBGRADE. ALL BASE COURSE DENSITY SHALL ALSO BE TESTED BY THE PRIVATE SOILS FIRM AT T.O.F. REQUIRED FREQUENCIES TO ENSURE COMPLIANCE WITH T.O.F. REQUIREMENTS. BASE COURSE TEST RESULTS SHALL ALSO BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO BACKFILLING. TEST RESULTS SHALL BE REVIEWED AND APPROVED BY THE T.O.F. ENGINEERING DIVISION PRIOR TO INITIATION OF THE REQUIRED [2] YEAR WARRANTY PERIOD.
- CONTRACTOR SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY RULES AND REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES DURING CONSTRUCTION AND FOR COORDINATING WITH THE APPROPRIATE UTILITY COMPANY FOR ANY UTILITY CROSSINGS REQUIRED. REPAIR OF DAMAGED UTILITIES SHALL BE AT THE CONTRACTORS EXPENSE, INCLUDING BUT NOT LIMITED TO UNIDENTIFIED UNDERGROUND UTILITIES.
- 10. EXISTING FENCES, TREES, SIDEWALKS, CURBS AND GUTTERS, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE INDICATED ON THESE PLANS.
- 11. CONTRACTOR SHALL OBTAIN A STORMWATER CONSTRUCTION PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY CONTROL DIVISION, PRIOR TO CLEARING, GRADING, OR EXCAVATING A SITE OF ONE-HALF ACRE OR MORE, OR LESS THAN ONE-HALF ACRE AND PART OF A LARGER DEVELOPMENT. A COPY OF THE APPROVED PERMIT MUST BE SUBMITTED TO THE T.O.F. PRIOR TO THE START OF CLEARING, GRADING OR EXCAVATING OF THE SITE. A COPY OF THE APPROVED PERMIT MUST ALSO BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
- 12. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION AND DEWATERING FROM THE TRENCH TO STORM SEWER, CHANNEL, IRRIGATION DITCH OR ANY WATERS OF THE UNITED STATES IS NECESSARY, THE CONTRACTOR SHALL OBTAIN A COLORADO STATE CONSTRUCTION DEWATERING DISCHARGE PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT WHERE. A COPY OF THE APPROVED PERMIT MUST BE SUBMITTED TO THE T.O.F. PRIOR TO THE START OF ANY DEWATERING. A COPY OF THE APPROVED PERMIT MUST ALSO BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STORM RUNOFF AND ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS NOR EROSION ON ABUTTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN ON THESE PLANS. NO CONCRETE SHALL BE PLACED WHERE GROUNDWATER IS VISIBLE OR UNTIL THE GROUNDWATER TABLE HAS BEEN LOWERED BELOW THE PROPOSED IMPROVEMENTS, ANY UNSTABLE AREAS. AS A RESULT OF GROUNDWATER, ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE STABILIZED AS AGREED UPON BY THE CONTRACTOR, THE T.O.F., AND THE GEOTECHNICAL ENGINEER AT THE TIME OF OCCURRENCE. REFER TO THE DETAILS WITHIN THIS PLAN SET FOR REQUIRED TRENCH BEDDING IN THE EVENT GROUNDWATER IS ENCOUNTERED IN THE WATER LINE TRENCH.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING AND VERIFYING ELEVATIONS OF ALL EXISTING WATER MAINS AND OTHER IMPROVEMENTS AT THE POINT OF CONNECTION SHOWN ON THE PLANS, AND AT ANY UTILITY CROSSINGS PRIOR TO INSTALLING ANY OF THE NEW IMPROVEMENTS. IF A CONFLICT EXISTS AND/OR A DESIGN MODIFICATION IS REQUIRED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO MODIFY THE DESIGN.
- 15. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITIES AND COORDINATE
- 16. ALL PUBLIC IMPROVEMENT WORK, INCLUDING CORRECTION WORK, SHALL BE INSPECTED BY A T.O.F. REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN STANDARD CONSTRUCTION PRACTICES ARE NOT BEING ADHERED TO. THE T.O.F. RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS. CONTRACTOR IS RESPONSIBLE FOR BEING AWARE OF, NOTIFYING, COORDINATING AND SCHEDULING ALL INSPECTIONS REQUIRED FOR FINAL APPROVALS AND PROJECT ACCEPTANCE.
- RECORD DRAWINGS SHOWING ALL CHANGES FROM THE APPROVED CONSTRUCTION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND OWNER PRIOR TO INITIATION OF THE REQUIRED 2-YEAR WARRANTY PERIOD. THE RECORD DRAWINGS WILL CONSIST OF A MARKED-UP SET OF "ISSUED FOR CONSTRUCTION" DRAWINGS VERIFYING THE FOLLOWING:
- ALL LENGTHS, SIZES, AND MATERIALS OF INSTALLED PIPE, MANHOLES, AND ANY OTHER IMPROVEMENT. • HORIZONTAL LOCATIONS EITHER BY STATION AND OFFSET, OR BY NORTHING AND EASTING COORDINATES OF ALL BENDS, VALVES, STUBS, PLUGS, TEES, ETC.
- TOP OF PIPE ELEVATION AT REGULAR INTERVALS AND/OR FITTINGS FOR WATER LINES. • ANY OTHER VARIATIONS FROM THE CONSTRUCTION DOCUMENTS MUST BE CLEARLY NOTED AND DETAILED ON THE PLANS. • AS-BUILT FIELD NOTES, FROM WHICH THE AS-BUILT DRAWINGS ARE PREPARED, ARE TO BE PROVIDED AND STAMPED/SIGNED AND DATED BY A COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR.
- 18. THE CONTRACTOR SHALL WARRANT ALL WORK TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF 2-YEARS FROM THE DATE OF ACCEPTANCE INTO THE WARRANTY PERIOD OF ALL CONSTRUCTION CALLED FOR BY THE PUBLIC IMPROVEMENTS AGREEMENT WITH THE T.O.F..
- 19. DURING CONSTRUCTION AND UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION.
- 20. THE OWNER/DEVELOPER AND/OR THEIR ASSIGNS SHALL IMPLEMENT A ROUTINE AND DILIGENT MAINTENANCE PLAN TO MAINTAIN PROPER GRADING AND DRAINAGE.
- MARTIN/MARTIN RECOMMENDS A GEOTECHNICAL ENGINEERING SITE REVIEW AND OBSERVES/TESTS ALL REQUIRED EXCAVATION AND BACKFILL COMPACTION. OWNER AND CONTRACTOR SHALL COORDINATE WITH THE GEOTECHNICAL REPRESENTATIVES.

Sheet	List Table
Sheet Number	Sheet Title
C-001	GENERAL NOTES
C-100	DEMOLITION PLAN
C-200	CIVIL SITE PLAN
C-201	CIVIL LINE & CURVE TABLES
C-202	GRADING PLAN
C-400	STORM SEWER PLAN
C-500	EROSION CONTROL PLAN
C-501	EROSION CONTROL DETAILS
C-502	EROSION CONTROL DETAILS

LEGEND

EXISTING

MARTIN/MARTIN

PROPOSED

	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SECTION LINE	
	EASEMENT	
	RETAINING WALL	
	CURB & GUTTER	
	CURB & GUTTER	
	(SPILL)	
	CURB & GUTTER (CATCH)	
	CONTOURS	5750
	UTILITY CROSSING	#
	STORM SEWER	ST
ST	STORM MANHOLE	ST
	ROOF DRAIN	RD
	STORM INLET	-
<	FLARED END SECTION	
SS	SANITARY SEWER	SS
<u>(SS)</u>	SANITARY MANHOLE	SS
0.	CLEAN OUT	_{co} O
	WATER LINE	——————————————————————————————————————
\otimes	WATER VALVE	⊗
Q	FIRE HYDRANT	
⊗ WM	WATER METER	
	IRRIGATION LINE	IR
IRR	IRRIGATION CONTROL	
——————————————————————————————————————	OVERHEAD ELECTRIC	
E	ELECTRIC LINE	———E———
\Q	LIGHT POLE	*
Ø	POWER POLE	ø
ELEC	ELECTRIC METER	
	TELEPHONE LINE	——т—
TEL	TELEPHONE PEDESTAL	T
	CABLE TV	СТ
	GAS LINE	G
	FIBER OPTIC	FO
O.W.	MONITOR WELL	
	SIGN	•
	DIRECTION OF FLOW	-
	GRADING ARROW	
	DECIDUOUS TREE	
	EVERGREEN TREE	
	BUSH/SHRUB	
ELEV	SPOT ELEVATIONS	ELEV.
^ DRIVE	DESCRIPTIONS	DRIVE

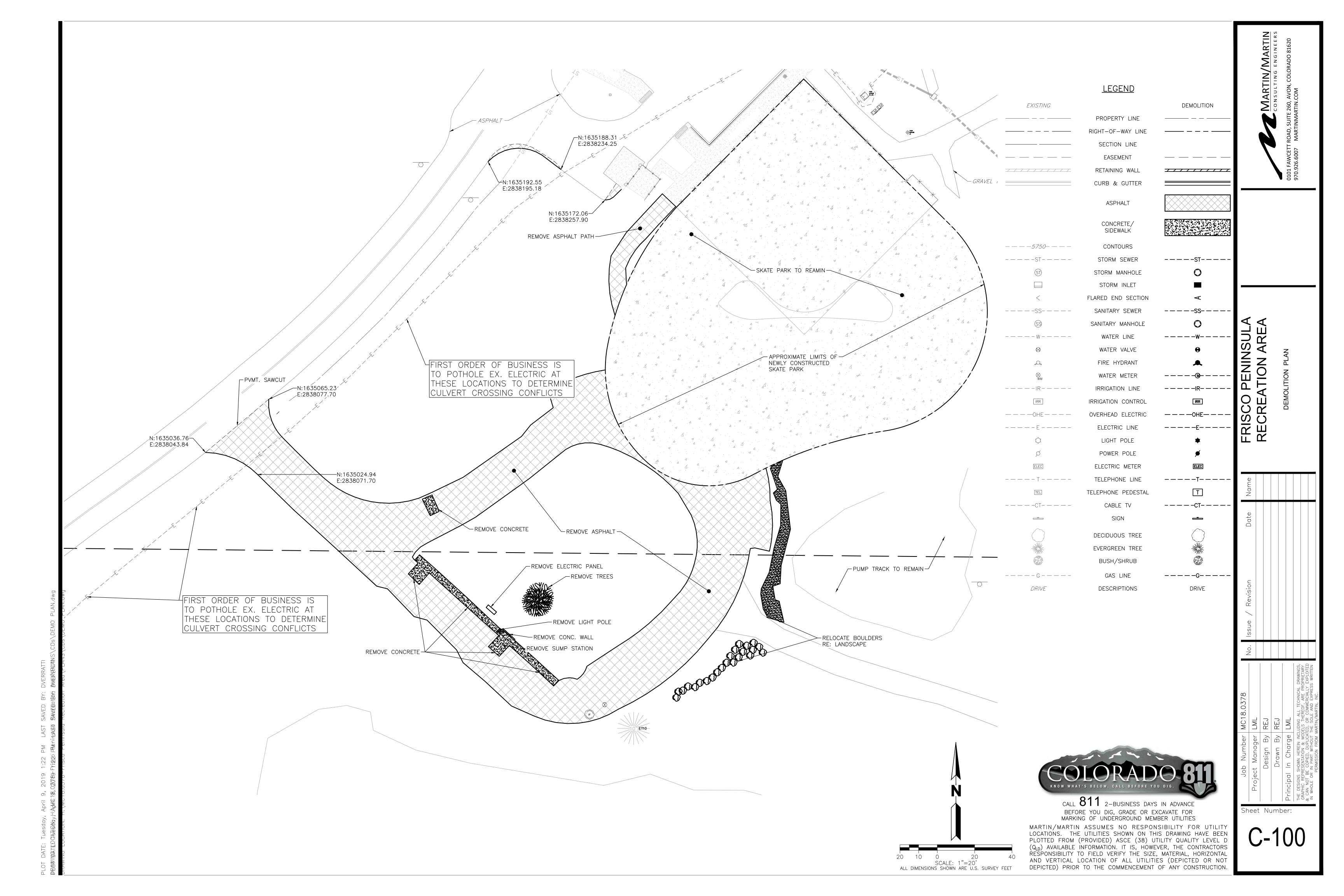


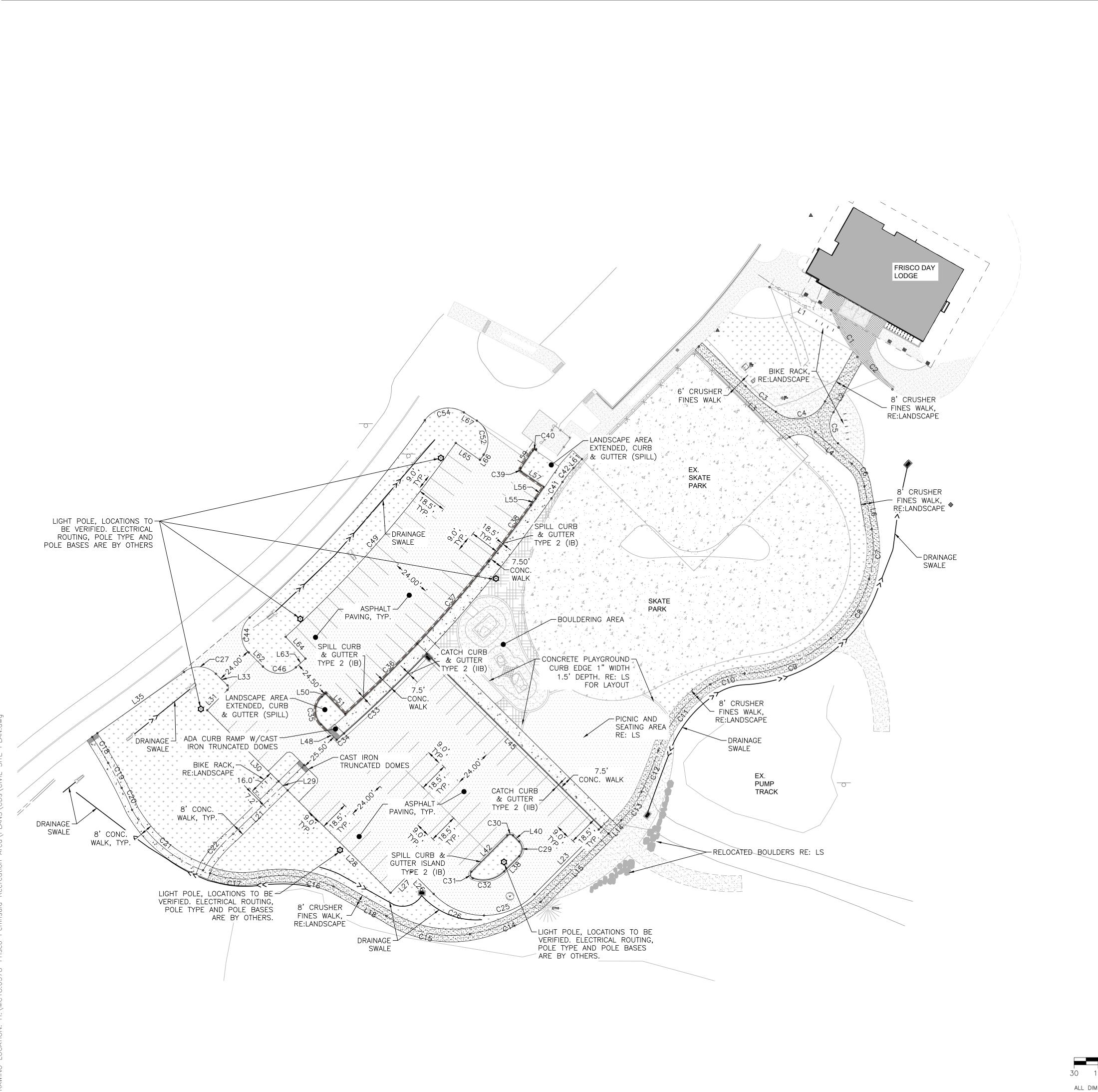
CALL 811 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

Sheet Number:

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM (PROVIDED) ASCE (38) UTILITY QUALITY LEVEL D (QID) AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

DVERRATTI	BNEGRATAINS/CDS/GENERAL
LAST SAVED BY:	SAVEED (BOM)
PM LAST	PRENINGAST
1:22	89-Fri <i>§</i> 20
ril 9, 2019	MIC 196, 020789-Frisco FRA
Tuesday, April	GAIBBAN,H.A
PLOT DATE:	PROWINGATEO





<u>LEGEND</u>

EXISTING PROPOSED PROPERTY LINE RIGHT-OF-WAY LINE SECTION LINE EASEMENT CURB & GUTTER CURB & GUTTER (SPILL) CURB & GUTTER (CATCH) **DESCRIPTIONS** DRIVE DRIVE

CONCRETE WALK: 4" CDOT CLASS B CONCRETE OVER 3" COMPACTED CDOT CLASS 6 BASE. OR MATCH EXISTING SECTION

ASPHALT PAVEMENT: 4" HMA OVER 5" COMPACTED CDOT CLASS 6 BASE

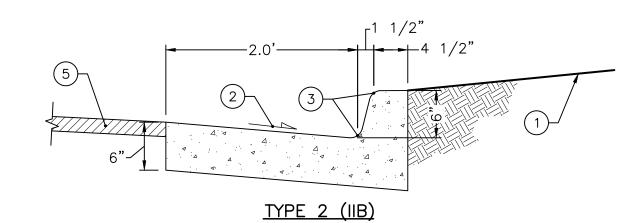
ALL ASPHALT, CONCRETE, CURB AND GUTTER SUBGRADE TO BE RECONDITIONED TO 1' DEPTH. SCARIFY AND COMPACT TO A MINIUM OF 95% OF STD PROCTOR MAXIMUM DRY DENSITY PER ASTM D-698 TO WITHIN 0% TO PLUS 2% OF OPTIMUM MOISTURE CONTENT.

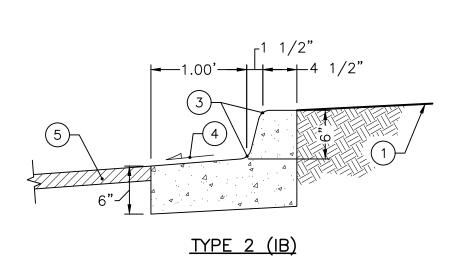
PAVING SECTION NOTES:

- 1. PAVING SECTIONS TO BE VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.
- 2. ALL STRIPING TO BE PLACED BY TOWN OF FRISCO.

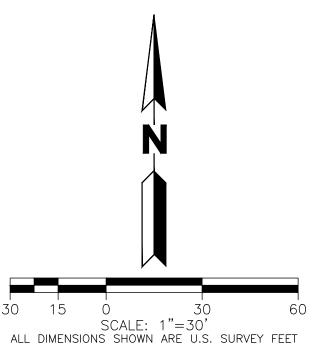
NOTES:

- 1. BACKFILL, SEE DETAIL OF CUT/FILL SLOPE
- 2. SLOPE AT 1" PER FOOT
- 3. 1 1/2" RADIUS TYPICAL
- 4. SLOPE AT 1/2" PER FOOT.
- 5. PAVEMENT, SEE TYPICAL PAVEMENT SECTION





6 INCH VERTICAL CURB AND GUTTER NOT TO SCALE M/M 2009





CALL 811 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

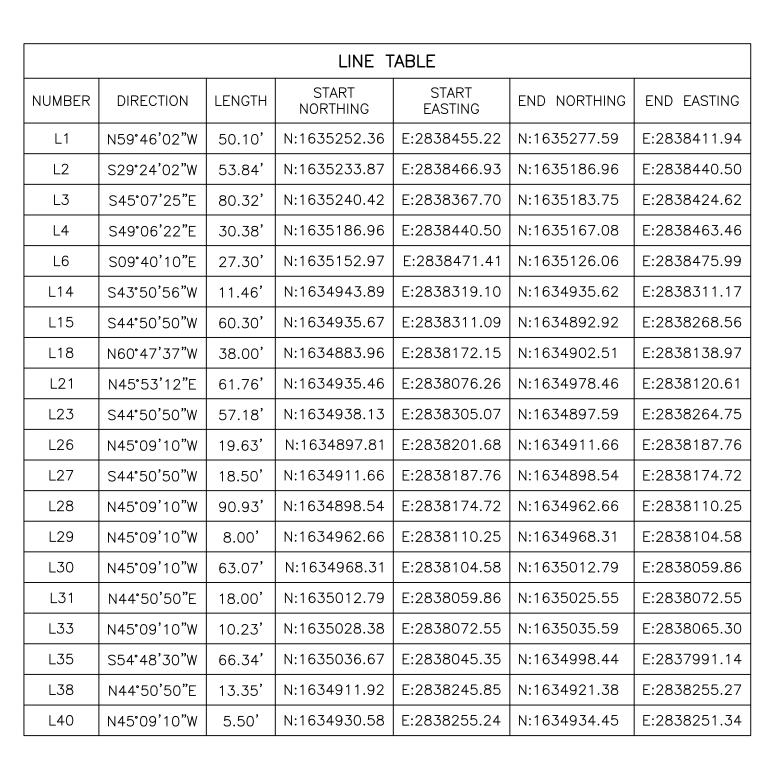
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MARTIN/MARTING CONSULTING ENGINEERS

PENINSULA ATION AREA

0/00.00	No.	Issue / Revision Date	Name
ALL TECHNICAL DRAWINGS,			
HEREOF, ARE PROPRIETARY R COMMFRCIALLY FXPLOITED			
OLE AND EXPRESS WRITTEN			
MAKIIN, INC.			

Sheet Number:



			LINE T	ABLE		
NUMBER	DIRECTION	LENGTH	START NORTHING	START EASTING	END NORTHING	END EASTING
L42	S44°50'50"W	32.00'	N:1634934.44	E:2838247.81	N:1634911.76	E:2838225.24
L45	N45°08'58"W	154.00'	N:1634939.55	E:2838306.48	N:1635048.16	E:2838197.31
L48	N45°09'10"W	13.77	N:1634994.18	E:2838140.96	N:1635003.89	E:2838131.20
L50	N48°33'36"E	3.05'	N:1635021.39	E:2838131.72	N:1635023.41	E:2838134.01
L51	S43°27'23"E	18.01	N:1635023.41	E:2838134.01	N:1635010.34	E:2838146.39
L55	N35°10'54"E	5.00'	N:1635141.01	E:2838262.59	N:1635145.10	E:2838265.47
L56	N34°39'56"E	9.00'	N:1635145.10	E:2838265.47	N:1635152.50	E:2838270.59
L57	N55°44'21"W	17.00'	N:1635152.50	E:2838270.59	N:1635162.07	E:2838256.54
L59	N34°12'14"E	13.50'	N:1635164.15	E:2838256.15	N:1635175.32	E:2838263.74
L61	N43°10'31"E	7.69'	N:1635164.36	E:2838289.28	N:1635169.96	E:2838294.54
L62	S45°09'10"E	12.52'	N:1635048.96	E:2838085.89	N:1635040.13	E:2838094.77
L63	N47°53'39"E	8.16'	N:1635039.63	E:2838115.40	N:1635045.10	E:2838121.45
L64	N42°25'03"W	18.50'	N:1635045.10	E:2838121.45	N:1635058.76	E:2838108.98
L65	S55°00'42"E	18.50'	N:1635180.08	E:2838215.50	N:1635169.47	E:2838230.66
L66	N35°15'31"E	3.93'	N:1635169.47	E:2838230.66	N:1635172.68	E:2838232.93
L67	N57°34'09"W	9.66'	N:1635194.00	E:2838228.73	N:1635199.19	E:2838220.57

					CURVE TABLE				
NUMBER	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD DIRECTION	CHORD LENGTH	START NORTHING	START EASTING	END NORTHING	END EASTING
C1	14°42'24"	109.90	28.21'	S27°36'51"E	28.13'	N:1635263.12	E:2838450.59	N:1635238.19	E:2838463.6
C2	19°51'01"	102.43	35.49'	S45°46'06"E	35.31'	N:1635238.19	E:2838463.63	N:1635213.56	E:2838488.9
C3	12°55'58"	109.79	24.78'	S49°52'00"E	24.73'	N:1635215.56	E:2838397.05	N:1635199.62	E:2838415.9
C4	101°08'35"	20.30'	35.83'	N78°12'24"E	31.36'	N:1635199.62	E:2838415.96	N:1635206.03	E:2838446.6
C5	81°36'20"	15.05'	21.44'	S08°13'37"E	19.67'	N:1635199.30	E:2838452.04	N:1635179.83	E:2838454.8
C6	39°26'12"	24.00'	16.52'	S29°23'16"E	16.20'	N:1635167.08	E:2838463.46	N:1635152.97	E:2838471.4
C7	25°25'15"	70.37	31.22'	S03°02'27"W	30.97'	N:1635126.06	E:2838475.99	N:1635095.14	E:2838474.3
C8	33°50'03"	75.98'	44.87	S32°40'06"W	44.22'	N:1635095.14	E:2838474.35	N:1635057.91	E:2838450.4
C9	38°18'03"	89.16	59.60'	S67°44'35"W	58.50'	N:1635057.91	E:2838450.48	N:1635035.76	E:2838396.3
C10	30°33'48"	42.66	22.76'	S72°26′11"W	22.49'	N:1635035.76	E:2838396.34	N:1635028.97	E:2838374.9
C11	37°58'47"	80.87	53.60'	S38°09'53"W	52.63'	N:1635028.97	E:2838374.91	N:1634987.59	E:2838342.3
C12	6°09'27"	259.50'	27.89'	S22°15'13"W	27.88'	N:1634987.59	E:2838342.38	N:1634961.79	E:2838331.8
C13	20°08'07"	62.83'	22.08'	S35°24'00"W	21.97'	N:1634961.79	E:2838331.83	N:1634943.89	E:2838319.1
C14	29°41'48"	94.74	49.10'	S65°21'27"W	48.56'	N:1634892.92	E:2838268.56	N:1634872.67	E:2838224.4
C15	42°11'47"	74.29	54.72'	N77°49'06"W	53.49'	N:1634872.67	E:2838224.43	N:1634883.96	E:2838172.1
C16	32°58'18"	82.33	47.38'	N83°03'37"W	46.73'	N:1634902.51	E:2838138.97	N:1634908.15	E:2838092.5
C17	30°46'21"	58.39	31.36'	N85°13'35"W	30.99'	N:1634908.15	E:2838092.59	N:1634910.73	E:2838061.7
C18	3°23'05"	323.26'	19.10'	S31°28'55"E	19.09'	N:1634996.10	E:2837987.88	N:1634979.82	E:2837997.8
C19	3°08'50"	323.92'	17.79'	S28°24'49"E	17.79'	N:1634979.82	E:2837997.85	N:1634964.17	E:2838006.3
C20	9°32'47"	91.36	15.22'	S25°25'06"E	15.20'	N:1634964.17	E:2838006.32	N:1634950.44	E:2838012.8

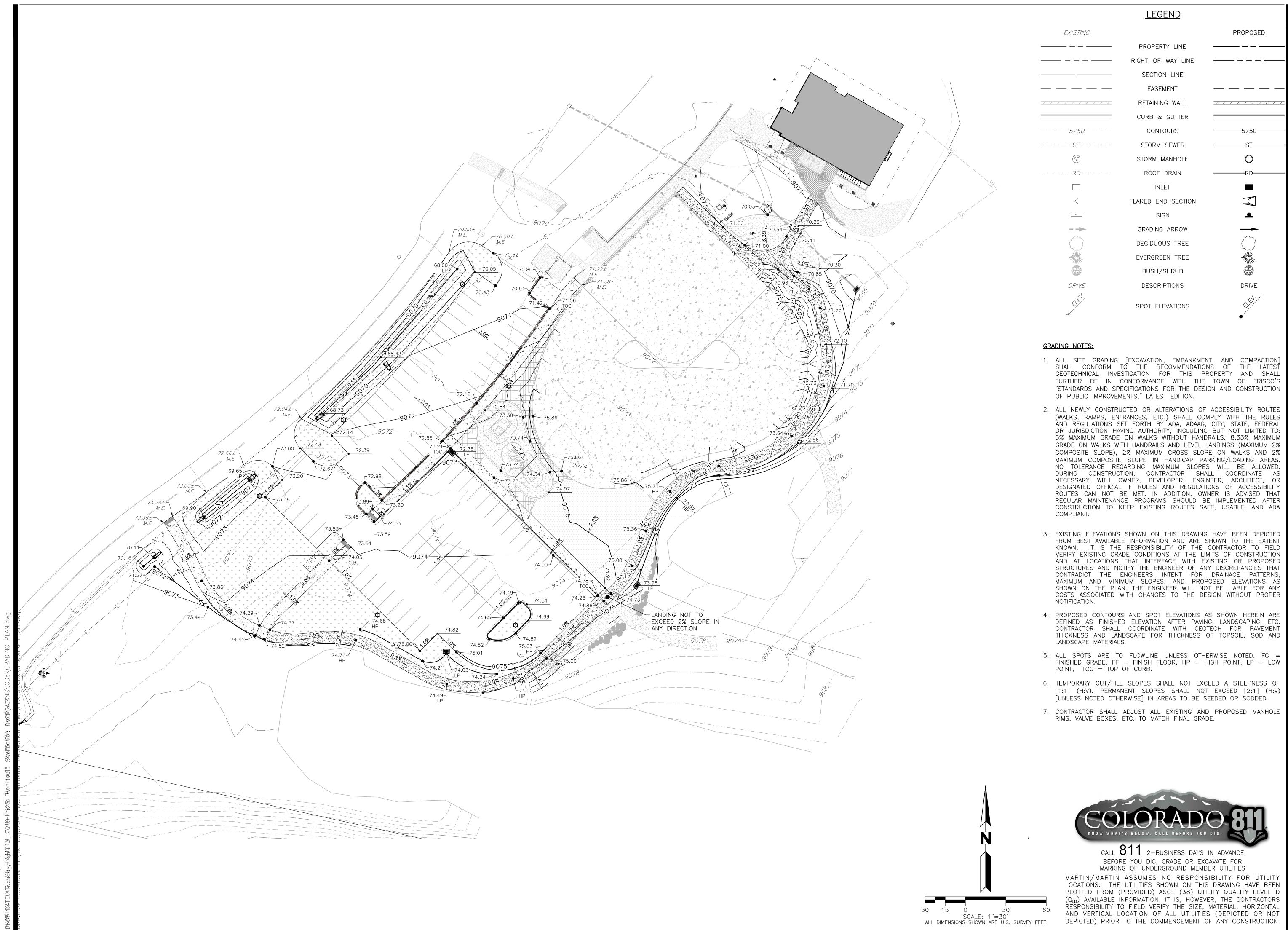
CURVE TABLE										CURVE TABLE				
CHORD LENGTH	START NORTHING	START EASTING	END NORTHING	END EASTING	NUMBER	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD DIRECTION	CHORD LENGTH	START NORTHING	START EASTING	END NORTHING	END EASTING
28.13'	N:1635263.12	E:2838450.59	N:1635238.19	E:2838463.63	C21	40°08'34"	85.12'	59.64	S49°33'22"E	58.43'	N:1634950.44	E:2838012.85	N:1634912.54	E:2838057.31
35.31'	N:1635238.19	E:2838463.63	N:1635213.56	E:2838488.93	C22	19°36'45"	87.33	29.89'	N39°34'29"E	29.75'	N:1634912.54	E:2838057.31	N:1634935.46	E:2838076.26
24.73'	N:1635215.56	E:2838397.05	N:1635199.62	E:2838415.96	C25	45°56'09"	43.87	35.18'	S67°15'19"W	34.24'	N:1634897.59	E:2838264.75	N:1634884.35	E:2838233.17
31.36'	N:1635199.62	E:2838415.96	N:1635206.03	E:2838446.65	C26	45°53'09"	43.92'	35.17'	N66°51'32"W	34.24'	N:1634884.35	E:2838233.17	N:1634897.81	E:2838201.68
19.67'	N:1635199.30	E:2838452.04	N:1635179.83	E:2838454.85	C27	83°30'54"	15.00'	21.86'	N86°54'37"W	19.98'	N:1635035.59	E:2838065.30	N:1635036.67	E:2838045.35
16.20'	N:1635167.08	E:2838463.46	N:1635152.97	E:2838471.41	C29	90°00'00"	6.50'	10.21	N00°09'10"W	9.19'	N:1634921.38	E:2838255.27	N:1634930.58	E:2838255.24
30.97'	N:1635126.06	E:2838475.99	N:1635095.14	E:2838474.35	C30	90°00'00"	2.50'	3.93'	S89°50'50"W	3.54'	N:1634934.45	E:2838251.34	N:1634934.44	E:2838247.81
44.22'	N:1635095.14	E:2838474.35	N:1635057.91	E:2838450.48	C31	114°02'47"	2.50'	4.98'	S12°10'33"E	4.19'	N:1634911.76	E:2838225.24	N:1634907.66	E:2838226.12
58.50'	N:1635057.91	E:2838450.48	N:1635035.76	E:2838396.34	C32	65°58'49"	18.53'	21.34'	N77°48'37"E	20.18'	N:1634907.66	E:2838226.12	N:1634911.92	E:2838245.85
22.49'	N:1635035.76	E:2838396.34	N:1635028.97	E:2838374.91	C33	5°07'18"	804.18	71.89'	S46°00'28"W	71.86'	N:1635048.16	E:2838197.31	N:1634998.25	E:2838145.61
52.63'	N:1635028.97	E:2838374.91	N:1634987.59	E:2838342.38	C34	0°32'31"	653.05	6.18'	S48°45'26"W	6.18'	N:1634998.25	E:2838145.61	N:1634994.18	E:2838140.96
27.88'	N:1634987.59	E:2838342.38	N:1634961.79	E:2838331.83	C35	93°42'46"	12.00'	19.63'	N01°42'13"E	17.51'	N:1635003.89	E:2838131.20	N:1635021.39	E:2838131.72
21.97'	N:1634961.79	E:2838331.83	N:1634943.89	E:2838319.10	C36	4°31'53"	797.00	63.03'	N45°40'44"E	63.02'	N:1635010.34	E:2838146.39	N:1635054.37	E:2838191.48
48.56'	N:1634892.92	E:2838268.56	N:1634872.67	E:2838224.43	C37	4°55'05"	797.00	68.41'	N40°57'15"E	68.39'	N:1635054.37	E:2838191.48	N:1635106.02	E:2838236.30
53.49'	N:1634872.67	E:2838224.43	N:1634883.96	E:2838172.15	C38	3°06'39"	806.15	43.77'	N36°55'14"E	43.76'	N:1635106.02	E:2838236.30	N:1635141.01	E:2838262.59
46.73	N:1634902.51	E:2838138.97	N:1634908.15	E:2838092.59	C39	89°56'36"	1.50'	2.35'	N10°46'04"W	2.12'	N:1635162.07	E:2838256.54	N:1635164.15	E:2838256.15
30.99'	N:1634908.15	E:2838092.59	N:1634910.73	E:2838061.71	C40	90°34'37"	1.50'	2.37'	N79°32'30"E	2.13'	N:1635175.32	E:2838263.74	N:1635175.70	E:2838265.83
19.09'	N:1634996.10	E:2837987.88	N:1634979.82	E:2837997.85	C41	0°53'02"	805.00'	12.42'	N34°07'26"E	12.42'	N:1635145.39	E:2838275.42	N:1635155.67	E:2838282.39
17.79'	N:1634979.82	E:2837997.85	N:1634964.17	E:2838006.32	C42	9°29'37"	67.00'	11.10'	N38°25'43"E	11.09'	N:1635155.67	E:2838282.39	N:1635164.36	E:2838289.28
15.20'	N:1634964.17	E:2838006.32	N:1634950.44	E:2838012.85	C44	93°25'08"	15.00'	24.46'	S01°33'24"W	21.84'	N:1635070.79	E:2838086.48	N:1635048.96	E:2838085.89

	CURVE TABLE											
NUMBER	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD DIRECTION	CHORD LENGTH	START NORTHING	START EASTING	END NORTHING	END EASTING			
C46	86°57'11"	15.00'	22.76'	S88°37'45"E	20.64'	N:1635040.13	E:2838094.77	N:1635039.63	E:2838115.40			
C49	12°35'39"	736.00'	161.78'	N41°17'08"E	161.45	N:1635058.76	E:2838108.98	N:1635180.08	E:2838215.50			
C52	92°49'40"	15.00'	24.30'	N11°09'19"W	21.73'	N:1635172.68	E:2838232.93	N:1635194.00	E:2838228.73			
C54	87°29'15"	18.00'	27.49'	S78°41'13"W	24.89'	N:1635199.19	E:2838220.57	N:1635194.30	E:2838196.16			



FRISCO PENINSULA RECREATION AREA

Sheet Number:



PENINSULA ATION AREA

FRISCO PE RECREATION

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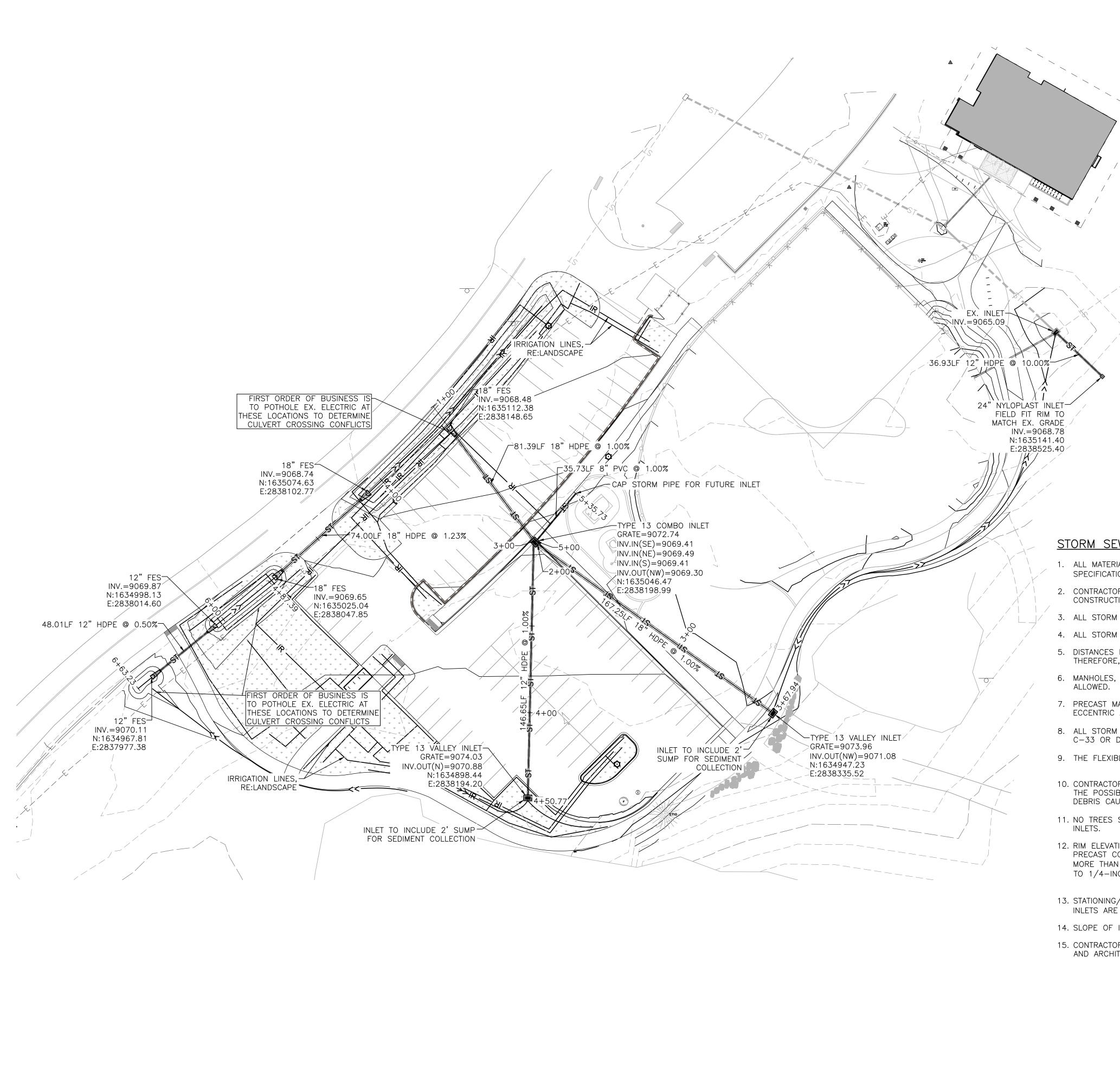
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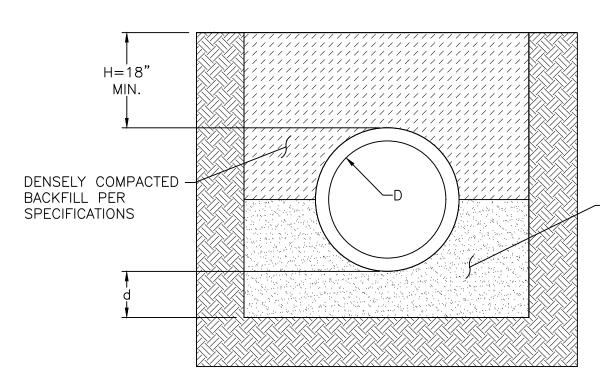
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<u>LEGEND</u>

- D = INSIDE DIAMETER OF PIPE (I.D.)
- d = DEPTH OF BEDDING MATERIAL BELOW PIPE

H = BACKFILL COVER ABOVE TOP OF PIPE



- COMPACTED GRANULAR MATERIAL PER SPECIFICATIONS

NOTE: FOR ROCK OR OTHER INCOMPRESSIBLE MATERIAL, THE TRENCH SHOULD BE OVER EXCAVATED A MINIMUM OF 6" AND REFILLED WITH GRANULAR MATERIAL. BEDDING SHALL BE CLASS B.

GRANULAR BEDDING: WELL GRADED MIXTURE OF SOUND MINERAL AGGREGATE COMPLYING WITH CLASS 67 (MODIFIED) GRADATION IN ACCORDANCE WITH THE FOLLOWING TABLE:

CLASS 67 (MODIFIED) GRADATION

NOMINAL SIZE PERCENT PASSING BY WEIGHT 3/4" 90-100

3/8" 20-55

NO. 4 5-10

5-10

DEPTH OF BEDD MATERIAL BELOW	
D	d(MIN)
27" & SMALLER	3"
30" TO 60"	4"
60" & LARGER	6"

PIPE BEDDING DETAIL

NOT TO SCALE

M/M 2009

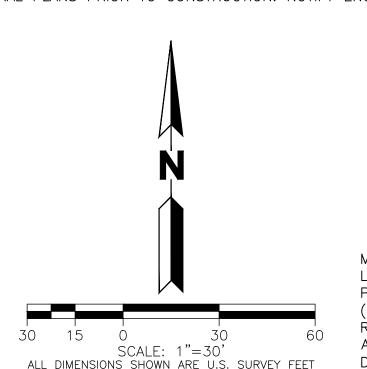
STORM SEWER NOTES:

- 1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF FRISCO (TOF) ENGINEERING STANDARDS, MATERIAL SPECIFICATIONS, AND DRAWINGS [LATEST REVISION]. ALL STORM SEWER CONSTRUCTION SHALL BE APPROVED AND INSPECTED BY tof.
- 2. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING STORM SEWER POINTS OF CONNECTION PRIOR TO CONSTRUCTION OF ANY PROPOSED STORM SEWER.
- 3. ALL STORM SEWER LINES SHALL BE HDPE ADS DUAL WALL N-12 PIPE OR EQUAL UNLESS OTHERWISE NOTED.

NO. 8

- 4. ALL STORM SEWER PIPE JOINTS SHALL BE INSTALLED WITH AN APPROVED RUBBER GASKET O-RING OR PROFILE TYPE GASKET.
- 5. DISTANCES FOR STORM SEWER PIPE ARE THE HORIZONTAL DISTANCES FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.

 THEREFORE, DISTANCES SHOWN ON PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND MANHOLE WIDTHS.
- 6. MANHOLES, BARRELS AND CONES SHALL BE CONSTRUCTED OF PRECAST CONCRETE. CAST—IN—PLACE MANHOLES SHALL NOT BE ALLOWED.
- 7. PRECAST MANHOLES AND RISERS SHALL BE MANUFACTURED IN CONFORMITY WITH ASTM DESIGNATION C-478. ALL CONES SHALL BE ECCENTRIC AND SHALL BE ROTATED AWAY FROM ADJACENT CURB AND GUTTER.
- 8. ALL STORM SEWERS SHALL HAVE CLASS "B" BEDDING UNLESS OTHERWISE SHOWN. BEDDING MATERIAL SHALL CONFORM TO ASTM C-33 OR D-448, GRADATION NO. 67.
- 9. THE FLEXIBLE PLASTIC JOINT SEALING COMPOUND SHALL BE "RAMNEK," RUBBERNECK OR APPROVED EQUAL.
- 10. CONTRACTOR SHALL IMMEDIATELY REMOVE DEBRIS DEPOSITED INTO PUBLIC MANHOLES AND OTHER PUBLIC STRUCTURES TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS CAUSING BACKUP INTO PRIVATE PROPERTIES. IF IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES.
- 11. NO TREES SHALL BE PLANTED WITHIN ANY SEWER EASEMENT OR WITHIN TEN [10] FEET OF ANY PUBLIC MANHOLES, PIPES OR
- 12. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS TO ADJUST THE MANHOLE FRAME TO THE REQUIRED FINAL GRADE, SUCH THAT THERE IS NO MORE THAN EIGHTEEN [18] INCHES FROM FINISHED GRADE TO THE TOP OF THE CONE SECTION. THE RIM SHALL BE LEFT 1/8-INCH TO 1/4-INCH BELOW FINISHED ASPHALT.
- 13. STATIONING/COORDINATES SHOWN FOR TYPE 'R' INLETS IS ON FLOWLINE AT CENTER OF INLET. STATIONING/COORDINATES FOR AREA INLETS ARE AT CENTER OF INLET. STATIONING/COORDINATES FOR FLARED END SECTIONS ARE AT CENTER OF FLARED END.
- 14. SLOPE OF INLET FLOW LINE OR GRATE TO MATCH STREET GRADE UNLESS INLET IS AT A SUMP LOCATION.
- 15. CONTRACTOR TO COORDINATE HORIZONTAL AND VERTICAL LOCATIONS OF ROOF DRAIN SERVICES AND DOWNSPOUTS WITH PLUMBING AND ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.





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MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM (PROVIDED) ASCE (38) UTILITY QUALITY LEVEL D (Q_{LD}) AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

MARTIN/MARTIN
CONSULTING ENGINEERS
0101 FAWCETT ROAD, SUITE 260, AVON, COLORADO 81620
970.926.6007 MARTINMARTIN.COM

FRISCO PENINSULA RECREATION AREA

Name						
Date						
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Project Manager LI
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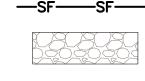
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- 1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND IMPLEMENTING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES AT ALL TIMES DURING CONSTRUCTION TO PREVENT DAMAGING FLOWS ON THE SITE AND IN THE WATERSHED BELOW THE SITE. CONTROL SYSTEMS SHALL BE INSTALLED PRIOR TO STRIPPING OF NATIVE VEGETATIVE COVER AND AS GRADING PROGRESSES. REFER TO SEDIMENT AND EROSION CONTROL PLANS AND STORM WATER MANAGEMENT PLAN. CONDITIONS IN THE FIELD MAY WARRANT EROSION CONTROL MEASURES IN ADDITION TO WHAT IS SHOWN ON THESE PLANS. THE PLAN MAY BE MODIFIED WITH APPROPRIATE APPROVALS AS FIELD CONDITIONS WARRANT.
- 2. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATION AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME.
- 3. TOPSOIL SHALL BE STOCKPILED TO THE EXTENT PRACTICABLE ON THE SITE FOR USE ON AREAS TO BE REVEGETATED. ANY AND ALL STOCKPILES SHALL BE LOCATED AND PROTECTED FROM EROSIVE ELEMENTS.
- 4. AT ALL TIMES, THE PROPERTY SHALL BE MAINTAINED AND/OR WATERED TO PREVENT WIND-CAUSED EROSION. EARTHWORK OPERATIONS SHALL BE DISCONTINUED WHEN FUGITIVE DUST SIGNIFICANTLY IMPACTS ADJACENT PROPERTY. IF EARTHWORK IS COMPLETE OR DISCONTINUED AND DUST FROM THE SITE CONTINUES TO CREATE PROBLEMS, THE CONTRACTOR SHALL IMMEDIATELY INSTITUTE MITIGATIVE MEASURES AND SHALL CORRECT DAMAGE TO ADJACENT PROPERTY.
- 5. PERMANENT OR TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 30 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. UNLESS SPECIFIED OTHERWISE, TEMPORARY VEGETATION SHALL BE INSTALLED ON ALL DISTURBED AREAS WHERE PERMANENT SURFACE IMPROVEMENTS ARE NOT SCHEDULED FOR INSTALLATION WITHIN THREE MONTHS. TEMPORARY VEGETATION SHALL BE A VIGOROUS, DROUGHT TOLERANT, NATIVE SPECIES MIX. PROJECT SCHEDULING SHOULD TAKE ADVANTAGE OF SPRING OR FALL PLANTING SEASONS FOR NATURAL GERMINATION, BUT SEEDED AREAS SHALL BE IRRIGATED, IF CONDITIONS MERIT. REFER TO THE LANDSCAPE PLAN FOR FINAL LANDSCAPING.
- 6. TEMPORARY FENCES SHALL BE INSTALLED ALONG ALL BOUNDARIES OF THE CONSTRUCTION LIMITS OR PROPERTY LINES AS SHOWN ON THE APPROVED EROSION CONTROL PLAN, TO PREVENT GRADING ON PROPERTY NOT OWNED BY THE OWNER/DEVELOPER. IN ADDITION, THE TOWN OF FRISCO MAY REQUIRE ADDITIONAL TEMPORARY FENCES IF FIELD CONDITIONS WARRANT.
- 7. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION, EXCAVATION, TRENCHING, GRADING OR OTHER CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, ROADWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
- 8. THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN INADVERTENTLY DISCHARGED TO, OR ACCUMULATED IN, THE FLOWLINES AND PUBLIC RIGHT—OF—WAY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT.

- 9. THE GRADING CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL ENSURE THAT ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THIS SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT ON PUBLIC ROADWAYS.
- 10.APPROVED EROSION AND SEDIMENT CONTROL "BEST MANAGEMENT PRACTICES" [BMP] SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL BMPS WEEKLY AND AFTER SIGNIFICANT PRECIPITATION EVENTS. ALL NECESSARY MAINTENANCE AND REPAIR SHALL BE COMPLETED IN A TIMELY MANNER. ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM A BMP WHEN THE SEDIMENT LEVEL REACHES ONE HALF THE HEIGHT OF THE BMP OR, AT ANY TIME THAT SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTIONING OF THE BMP.
- 11.WATER USED IN THE CLEANING OF CONCRETE TRUCK DELIVERY CHUTES SHALL BE DISCHARGED INTO A PREDEFINED, BERMED CONTAINMENT AREA ON THE JOB SITE. THE REQUIRED CONTAINMENT AREA IS TO BE BERMED SO THAT WASH WATER IS TOTALLY CONTAINED. WASH WATER DISCHARGED INTO THE CONTAINMENT AREA SHALL BE ALLOWED TO INFILTRATE OR EVAPORATE. DRIED CONCRETE WASTE SHALL BE REMOVED FROM THE CONTAINMENT AREA AND PROPERLY DISPOSED OF. SHOULD A PREDEFINED BERMED CONTAINMENT AREA NOT BE AVAILABLE DUE TO THE PROJECT SIZE, OR LACK OF AN AREA WITH A SUITABLE GROUND SURFACE FOR ESTABLISHING A CONTAINMENT AREA, PROPER DISPOSAL OF READY MIX WASHOUT AND RINSE OFF WATER AT THE JOB SITE SHALL CONFORM TO THE APPROVED TECHNIQUES AND PRACTICES IDENTIFIED IN THE COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT'S TRAINING VIDEO ENTITLED "BUILDING FOR A CLEANER ENVIRONMENT, READY MIX WASHOUT TRAINING", AND ITS ACCOMPANYING MANUAL ENTITLED, "READY MIX WASHOUT GUIDEBOOK, VEHICLE AND EQUIPMENT WASHOUT AT CONSTRUCTION SITES." THE DIRECT OR INDIRECT DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. INFORMATION ABOUT, OR COPIES OF THE VIDEO AND TRAINING MANUAL ARE AVAILABLE FROM THE WATER QUALITY CONTROL DIVISION, COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT, 4300 CHERRY CREEK DRIVE SOUTH, DENVER, COLORADO 80222-1530, 303-692-3555
- 12.THE CONTRACTOR SHALL PROTECT ALL STORM SEWER FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL WASTE PRODUCTS GENERATED BY SAID CUTTING OPERATIONS ON A DAILY BASIS. THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM CUTTING OPERATIONS TO THE STORM SEWER SYSTEM IS PROHIBITED.
- 13.PAVED SURFACES WHICH ARE ADJACENT TO CONSTRUCTION SITES SHALL BE SWEPT IN A TIMELY MANNER WHEN SEDIMENT AND OTHER MATERIALS ARE TRACKED OR DISCHARGED ON TO THEM. EITHER SWEEPING BY HAND OR USE OF STREET SWEEPERS IS ACCEPTABLE. STREET SWEEPERS USING WATER WHILE SWEEPING IS PREFERRED IN ORDER TO MINIMIZE DUST. FLUSHING OFF PAVED SURFACES WITH WATER IS PROHIBITED.

<u>LEGEND</u>

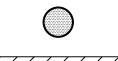


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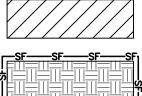
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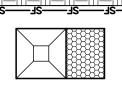


INLET PROTECTION IP

STABILIZED STAGING AREA SSA



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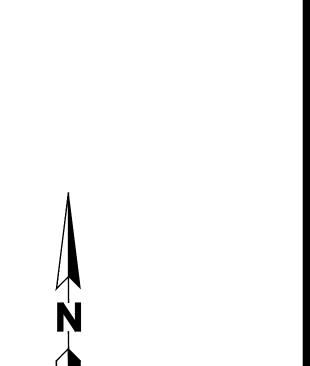
CONCRETE WASHOUT AREA CWA



EROSION CONTROL BLANKET (ECB)

CONSTRUCTION

FENCE



SCALE: 1"=30'
ALL DIMENSIONS SHOWN ARE U.S. SURVEY FEET



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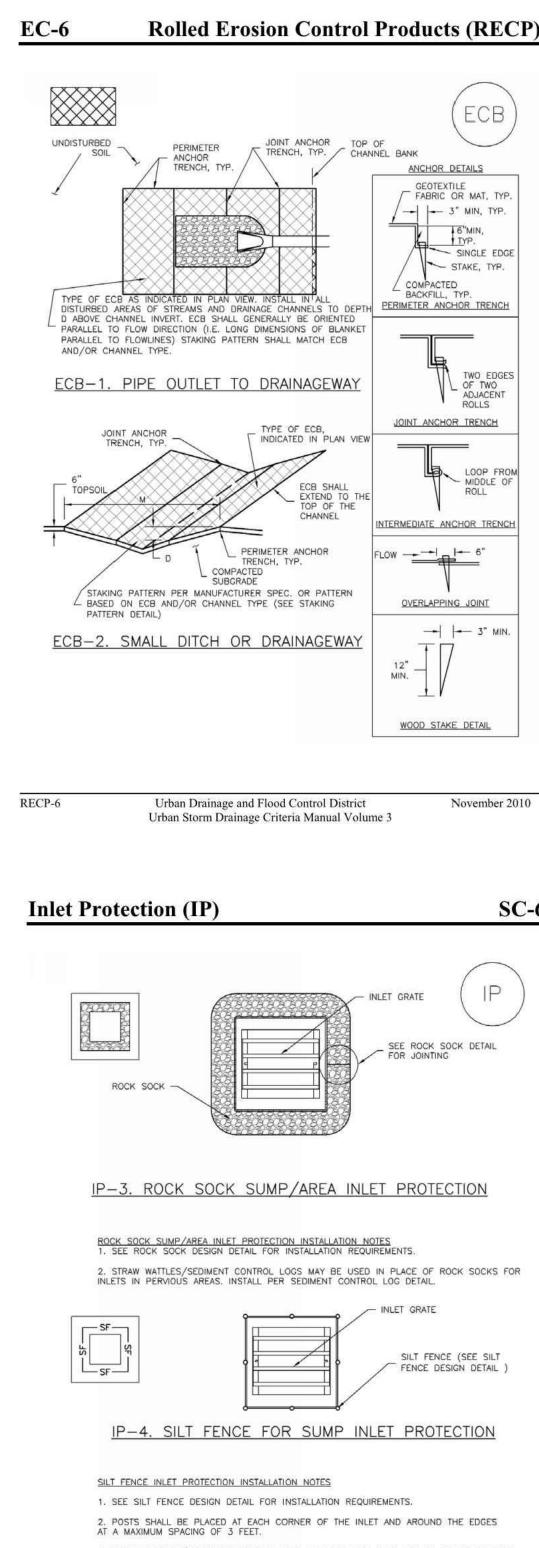
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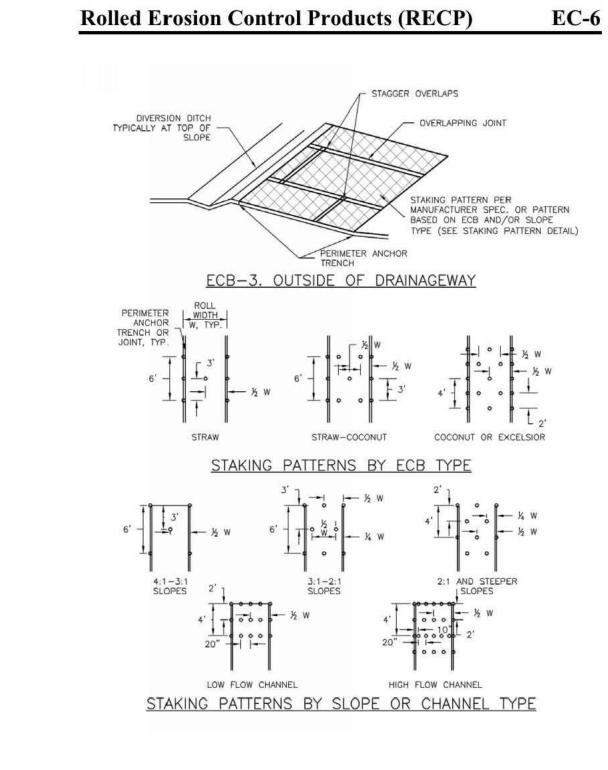
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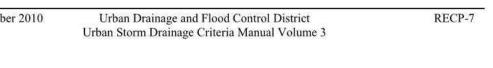
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GENERAL INLET PROTECTION INSTALLATION NOTES SEE PLAN VIEW FOR:

 LOCATION OF INLET PROTECTION.

 -TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6) 2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT. 3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED. INLET PROTECTION MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. 4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR 14 OF THE HEIGHT FOR 5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS. 6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION. (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD) NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 Rolled Erosion Control Products (RECP)

EROSION CONTROL BLANKET INSTALLATION NOTES SEE PLAN VIEW FOR:
 LOCATION OF ECB. -TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR). -AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB. 2. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPS, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS. 3. IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE 4. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL

(LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT. 6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs. 7. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs 8. MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.

9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBS SHALL BE RESEEDED AND MULCHED. 10. DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER

	ADLE ECD-1.	ECD MAIER	AL SPECIFICAT	IONS:
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING**
STRAW*		100%	-	DOUBLE/ NATURAL
STRAW- COCONUT	30% MIN	70% MAX		DOUBLE/ NATURAL
COCONUT	100%	1/24	=/	DOUBLE/ NATURAL
EXCELSIOR	=	:-	100%	DOUBLE/ NATURAL

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Rolled Erosion Control Products (RECP)

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

4. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.

5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.

MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER COLORADO, NOT AVAILABLE IN AUTOCAD)

EROSION CONTROL BLANKET MAINTENANCE NOTES

EROSION, AND PERFORM NECESSARY MAINTENANCE.

RECP-9

EC-6

SM-4

Vehicle Tracking Control (VTC)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES 1. SEE PLAN VIEW FOR -LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
-TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

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2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH)
WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS. 4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES. 5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK. STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS

POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN

EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. 4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED. (DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

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MARTIN/MARTIN

PENINSUL/ ATION ARE/

Sheet Number:

- INLET GRATE SEE ROCK SOCK DETAIL IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION 2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS, INSTALL PER SEDIMENT CONTROL LOG DETAIL. SILT FENCE (SEE SILT FENCE DESIGN DETAIL IP-4. SILT FENCE FOR SUMP INLET PROTECTION SILT FENCE INLET PROTECTION INSTALLATION NOTES 1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS. 2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES 3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL. Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

ANCHOR DETAILS

GEOTEXTILE FABRIC OR MAT, TY

- 3" MIN, TYP.

SINGLE EDGE

STAKE, TYP.

TWO EDGE OF TWO ADJACENT ROLLS

PERIMETER ANCHOR TRENCH

JOINT ANCHOR TRENCH

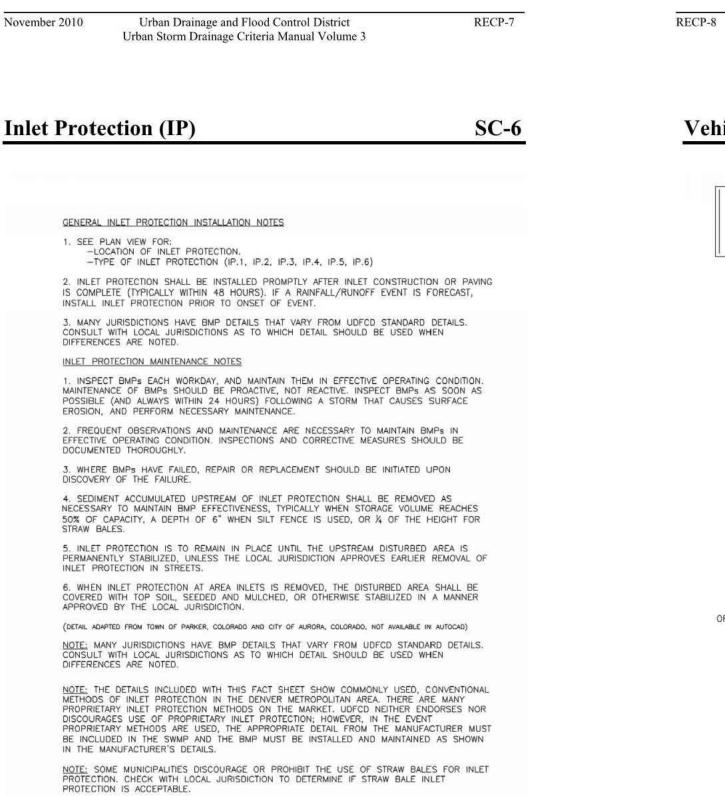
INTERMEDIATE ANCHOR TRENCH

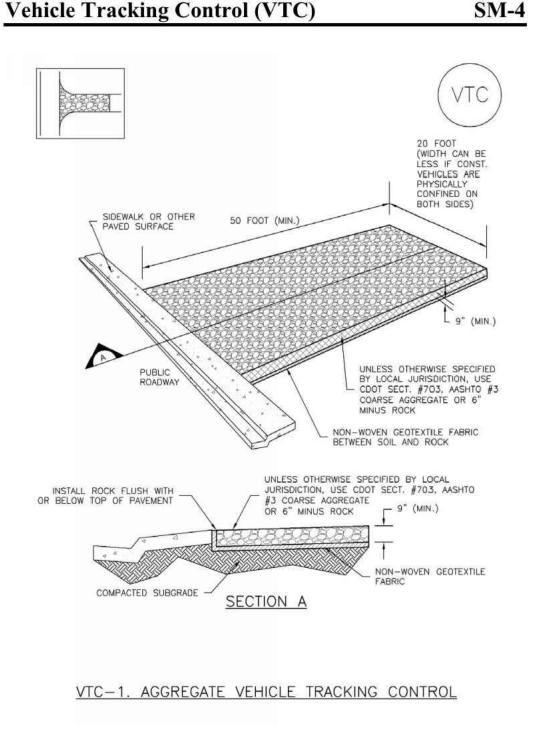
OVERLAPPING JOINT

WOOD STAKE DETAIL

- 3" MIN

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INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS
POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPS IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE

5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED. 7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND

MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION. (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

CWA MAINTENANCE NOTES

EROSION, AND PERFORM NECESSARY MAINTENANCE

CONTAINER AND DISPOSED OF PROPERLY.

— SF — SF — SF —

FLOW ___

POSTS SHALL BE JOINED AS

SHOWN, THEN ROTATED 180 DEG. IN DIRECTION SHOWN AND DRIVEN

SILT FENCE GEOTEXTILE

6" MIN

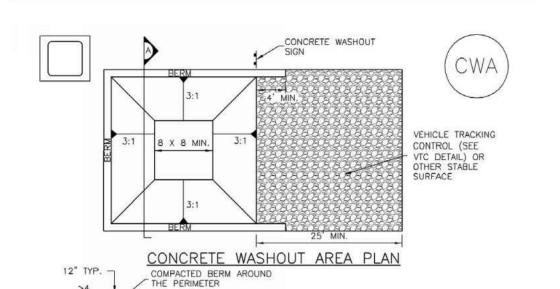
1 ½" × 1 ½" (RECOMMENDED) WOODEN

FENCE POST WITH 10' MAX

THICKNESS OF GEOTEXTILE HAS BEEN EXAGGERATED, TYP

SPACING

Sheet Number:



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES SEE PLAN VIEW FOR:
 -CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY, DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN, THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

8 X 8 MIN.

VEHICLE TRACKING

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. 4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA. 7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

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STABILIZED CONSTRUCTION

ENTRANCE (SEE DETAILS VTC-1

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— SF/CF — SF/CF —

NEEDED)

EXISTING ROADWAY

STABILIZED STAGING AREA INSTALLATION NOTES

-LOCATION OF STAGING AREA(S)

FROM THE LOCAL JURISDICTION.

FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

EROSION, AND PERFORM NECESSARY MAINTENANCE.

UNDERLYING SUBGRADE BECOMES EXPOSED.

SSA-1. STABILIZED STAGING AREA

-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE, OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS

POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN

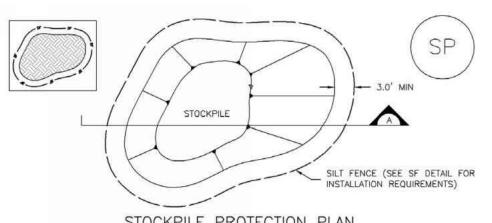
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR

EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.



STOCKPILE PROTECTION PLAN SILT FENCE (SEE SF DETAIL FOR INSTALLATION REQUIREMENTS) SECTION A

SP-1. STOCKPILE PROTECTION STOCKPILE PROTECTION INSTALLATION NOTES SEE PLAN VIEW FOR:
 -LOCATION OF STOCKPILES.
 -TYPE OF STOCKPILE PROTECTION.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FALING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS ACAINST THE PERIMETER AND OTHER FACTORS. OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

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SILT FENCE

SECTION A

SF-1. SILT FENCE

Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES. OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').

POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

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Stabilized Staging Area (SSA)

SM-6

SM-6

GRANULAR MATERIAL

FENCING AS NEEDED

SILT FENCE OR CONSTRUCTION

Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS. 6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION. NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE, NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS EROSION, AND PERFORM NECESSARY MAINTENANCE.

EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED 5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING,

TEARING, OR COLLAPSE. 6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER

SEDIMENT CONTROL BMP. 7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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SSA-3

Urban Drainage and Flood Control District

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- 1. THESE PLANS SHALL NOT BE UTILIZED FOR CONSTRUCTION OR PERMITTING UNLESS STATED FOR SUCH USE IN THE TITLE BLOCK.
- DRAWINGS ARE INTENDED TO BE PRINTED ON 24" X 36" PAPER. PRINTING THESE DRAWINGS AT A
 DIFFERENT SIZE WILL IMPACT THE SCALE. VERIFY THE GRAPHIC SCALE BEFORE REFERENCING ANY
 MEASUREMENTS ON THESE SHEETS. THE RECIPIENT OF THESE DRAWINGS SHALL BE RESPONSIBLE
 FOR ANY ERRORS RESULTING FROM INCORRECT PRINTING, COPYING, OR ANY OTHER CHANGES THAT
 ALTER THE SCALE OF THE DRAWINGS.
- 3. VERIFY ALL PLAN DIMENSIONS PRIOR TO START OF CONSTRUCTION. NOTIFY THE OWNER'S REPRESENTATIVE TO ADDRESS ANY QUESTIONS OR CLARIFY ANY DISCREPANCIES.
- WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
 SUBMIT A CHANGE ORDER FOR APPROVAL FOR ANY CHANGES TO WORK SCOPE RESULTING FROM FIELD CONDITIONS OR DIRECTION BY OWNER'S REPRESENTATIVE WHICH REQUIRE ADDITIONAL COST TO THE OWNER PRIOR TO PERFORMANCE OF WORK.
- 5. THE CONTRACTOR SHALL PROVIDE A STAKED LAYOUT OF ALL SITE IMPROVEMENTS FOR INSPECTION BY THE OWNER'S REPRESENTATIVE AND MAKE MODIFICATIONS AS REQUIRED. ALL LAYOUT INFORMATION IS AVAILABLE IN DIGITAL FORMAT FOR USE BY THE CONTRACTOR.
- 7. IF A GEOTECHNICAL SOILS REPORT IS NOT AVAILABLE AT THE TIME OF CONSTRUCTION, NORRIS DESIGN RECOMMENDS A REPORT BE AUTHORIZED BY THE OWNER AND THAT ALL RECOMMENDATIONS OF THE REPORT ARE FOLLOWED DURING CONSTRUCTION. THE CONTRACTOR SHALL USE THESE CONTRACT DOCUMENTS AS A BASIS FOR THE BID. IF THE OWNER ELECTS TO PROVIDE A GEOTECHNICAL REPORT, THE CONTRACTOR SHALL REVIEW THE REPORT AND SUBMIT AN APPROPRIATE CHANGE ORDER TO THE OWNER'S REPRESENTATIVE IF ADDITIONAL COSTS ARE REQUESTED.
- 8. CONTRACTOR SHALL CONFIRM THAT SITE CONDITIONS ARE SIMILAR TO THE PLANS, WITHIN TOLERANCES STATED IN THE CONTRACT DOCUMENTS, AND SATISFACTORY TO THE CONTRACTOR PRIOR TO START OF WORK. SHOULD SITE CONDITIONS BE DIFFERENT THAN REPRESENTED ON THE PLANS OR UNSATISFACTORY TO THE CONTRACTOR, THE CONTRACTOR SHALL
- CONTRACTOR IS RESPONSIBLE TO PAY FOR, AND OBTAIN, ANY REQUIRED APPLICATIONS, PERMITTING,
- LICENSES, INSPECTIONS AND METERS ASSOCIATED WITH WORK.

 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO ANY VIOLATIONS OR NON-CONFORMANCE WITH THE PLANS, SPECIFICATIONS, CONTRACT DOCUMENTS, JURISDICTIONAL CODES, AND REGULATORY AGENCIES.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. REFER TO ENGINEERING UTILITY PLANS FOR ALL PROPOSED UTILITY LOCATIONS AND DETAILS. NOTIFY OWNER'S REPRESENTATIVE IF EXISTING OR PROPOSED UTILITIES INTERFERE WITH THE ABILITY TO PERFORM WORK.
- 12. UNLESS IDENTIFIED ON THE PLANS FOR DEMOLITION OR REMOVAL, THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT OR EXISTING LANDSCAPE, ADJACENT OR EXISTING PAVING, OR ANY PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION, ESTABLISHMENT OR DURING THE SPECIFIED MAINTENANCE PERIOD. ALL DAMAGES SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS AS DETERMINED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR LOGGING ANY DAMAGES PRIOR TO START OF CONSTRUCTION AND DURING THE CONTRACT PERIOD.
- 13. ALL WORK SHALL BE CONFINED TO THE AREA WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. ANY AREAS OR IMPROVEMENTS DISTURBED OUTSIDE THESE LIMITS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IN THE EVENT THE CONTRACTOR REQUIRES A MODIFICATION TO THE CONSTRUCTION LIMITS, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER'S REPRESENTATIVE PRIOR TO ANY DISTURBANCE OUTSIDE OF THE LIMITS OF WORK.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO THE APPROPRIATE JURISDICTIONAL AGENCIES AND THE OWNER'S REPRESENTATIVE IF THEIR WORK AND OPERATIONS AFFECT OR IMPACT THE PUBLIC RIGHTS-OF-WAY. OBTAIN APPROVAL PRIOR TO ANY WORK WHICH AFFECTS OR IMPACTS THE PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THIS REQUIREMENT DURING THE CONTRACT PERIOD.
- 16. SIGHT TRIANGLES AND SIGHT LINES SHALL REMAIN UNOBSTRUCTED BY EQUIPMENT, CONSTRUCTION MATERIALS, PLANT MATERIAL OR ANY OTHER VISUAL OBSTACLE DURING THE CONTRACT PERIOD AND AT MATURITY OF PLANTS PER LOCAL JURISDICTIONAL REQUIREMENTS. NO PLANT MATERIAL OTHER THAN GROUND COVER IS ALLOWED TO BE PLANTED ADJACENT TO FIRE HYDRANTS AS STIPULATED BY JURISDICTIONAL REQUIREMENTS.
- 17. COORDINATE SITE ACCESS, STAGING, STORAGE AND CLEANOUT AREAS WITH OWNER'S REPRESENTATIVE.
- 18. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SAFETY FENCING AND BARRIERS AROUND ALL IMPROVEMENTS SUCH AS WALLS, PLAY STRUCTURES, EXCAVATIONS, ETC. ASSOCIATED WITH THEIR WORK UNTIL SUCH FACILITIES ARE COMPLETELY INSTALLED PER THE PLANS, SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
- 19. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THEIR MATERIAL STOCK PILES AND WORK FROM VANDALISM, EROSION OR UNINTENDED DISTURBANCE DURING THE CONSTRUCTION PERIOD AND UNTIL FINAL ACCEPTANCE IS ISSUED.
- 20. THE CONTRACTOR SHALL KNOW, UNDERSTAND AND ABIDE BY ANY STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ASSOCIATED WITH THE SITE. IF A STORM WATER POLLUTION PREVENTION PLAN IS NOT PROVIDED BY THE OWNER'S REPRESENTATIVE, REQUEST A COPY BEFORE PERFORMANCE OF ANY SITE WORK.
- 21. MAINTAIN ANY STORM WATER MANAGEMENT FACILITIES THAT EXIST ON SITE FOR FULL FUNCTIONALITY. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ANY NEW STORM WATER MANAGEMENT FACILITIES THAT ARE IDENTIFIED IN THE SCOPE OF WORK TO FULL FUNCTIONALITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER FOR FAILURE TO MAINTAIN STORM WATER MANAGEMENT FACILITIES DURING THE CONTRACT PERIOD.
- 22. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM EXITING THE SITE OR ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION OR CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE REQUIREMENTS DURING THEIR CONTRACTED COURSE OF WORK.
- 23. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREVENT ANY IMPACTS TO ADJACENT WATERWAYS, WETLANDS, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS RESULTING FROM WORK DONE AS PART OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE STANDARDS DURING THEIR CONTRACTED COURSE OF WORK
- 24. THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL ENSURE THAT ALL LOADS OF CONSTRUCTION MATERIAL IMPORTED TO OR EXPORTED FROM THE PROJECT SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF MATERIAL DURING TRANSPORT. TRANSPORTATION METHODS ON PUBLIC RIGHT-OF WAYS SHALL CONFORM TO JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE REQUIREMENTS.
- 25. THE CLEANING OF EQUIPMENT IS PROHIBITED AT THE JOB SITE UNLESS AUTHORIZED BY THE OWNER'S REPRESENTATIVE IN A DESIGNATED AREA. THE DISCHARGE OF WATER, WASTE CONCRETE, POLLUTANTS, OR OTHER MATERIALS SHALL ONLY OCCUR IN AREAS DESIGNED FOR SUCH USE AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- 26. THE CLEANING OF CONCRETE EQUIPMENT IS PROHIBITED AT THE JOB SITE EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE IN THE STORM SEWER IS PROHIBITED.

E E

₽ R 27. OPEN SPACE SWALES: IF SWALES ARE EXISTING ON SITE AND ARE NOT INTENDED TO BE MODIFIED AS PART OF THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE CONVEYANCE OF WATER WITHIN THE SWALES DURING THE CONTRACT PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DIVERSION OR PUMPING OF WATER IF REQUIRED TO COMPLETE WORK. ANY SWALES DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED/RESTORED TO THEIR ORIGINAL CONDITION. IF THE SWALE NEEDS TO BE DISTURBED OR MODIFIED FOR ANY REASON, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO DISTURBANCE.

- 28. DETENTION AND WATER QUALITY PONDS: IF DETENTION PONDS AND WATER QUALITY PONDS ARE EXISTING ON SITE AND ARE NOT INTENDED TO BE MODIFIED AS PART OF THE PLANS, THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE PONDS, DRAINAGE STRUCTURES AND SPILLWAYS DURING CONSTRUCTION. ALL PONDS, DRAINAGE STRUCTURES AND SPILLWAYS SHALL BE MAINTAINED IN OPERABLE CONDITIONS AT ALL TIMES. ANY POND OR SPILLWAY AREAS DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED/RESTORED TO THEIR ORIGINAL CONDITION. IF THE POND NEEDS TO BE DISTURBED OR MODIFIED FOR ANY REASON, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO DISTURBANCE.
- 29. MAINTENANCE ACCESS BENCHES: IF MAINTENANCE BENCHES OR ACCESS ROADS EXIST ON SITE AND ARE NOT INTENDED TO BE MODIFIED AS PART OF THE PLANS, THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE BENCHES OR ACCESS ROADS DURING CONSTRUCTION. ANY BENCHES OR ACCESS ROADS DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED/RESTORED TO THEIR ORIGINAL CONDITION. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING BENCHES AND ACCESS ROADS DURING THE CONSTRUCTION PERIOD. IF ACCESS NEEDS TO BE BLOCKED FOR ANY REASON, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INTERRUPTION OF ACCESS.
- 30. LOCAL, STATE AND FEDERAL JURISDICTIONAL REQUIREMENTS, RESTRICTIONS OR PROCEDURES SHALL SUPERSEDE THESE PLANS, NOTES AND SPECIFICATIONS WHEN MORE STRINGENT. NOTIFY THE OWNER'S REPRESENTATIVE IF CONFLICTS OCCUR.

LANDSCAPE NOTES

- 1. THE CONTRACTOR SHALL FOLLOW THE LANDSCAPE PLANS AND SPECIFICATIONS AS CLOSELY AS POSSIBLE. ANY SUBSTITUTION OR ALTERATION SHALL NOT BE ALLOWED WITHOUT APPROVAL OF THE OWNER'S REPRESENTATIVE. OVERALL PLANT QUANTITY AND QUALITY SHALL BE CONSISTENT WITH THE
- 2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. GRAPHIC QUANTITIES TAKES PRECEDENCE OVER WRITTEN QUANTITIES.
- 3. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND TAG ALL PLANT MATERIAL PRIOR TO SHIPPING TO THE SITE. IN ALL CASES, THE OWNER'S REPRESENTATIVE MAY REJECT PLANT MATERIAL AT THE SITE IF MATERIAL IS DAMAGED, DISEASED, OR DECLINING IN HEALTH AT THE TIME OF ONSITE INSPECTIONS OR IF THE PLANT MATERIAL DOES NOT MEET THE MINIMUM SPECIFIED STANDARD IDENTIFIED ON THE PLANS AND IN THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL MATERIALS AND PRODUCTS PRIOR TO INSTALLATION.
- 4. THE OWNER'S REPRESENTATIVE MAY ELECT TO UPSIZE PLANT MATERIAL AT THEIR DISCRETION BASED ON SELECTION, AVAILABILITY, OR TO ENHANCE SPECIFIC AREAS OF THE PROJECT. THE CONTRACTOR SHALL VERIFY PLANT MATERIAL SIZES WITH OWNER'S REPRESENTATIVE PRIOR TO PURCHASING, SHIPPING OR STOCKING OF PLANT MATERIALS. SUBMIT CHANGE ORDER REQUEST TO OWNER'S REPRESENTATIVE FOR APPROVAL IF ADDITIONAL COST IS REQUESTED BY THE CONTRACTOR PRIOR TO INSTALLATION. RE-STOCKING CHARGES WILL NOT BE APPROVED IF THE CONTRACTOR FAILS TO SUBMIT A REQUEST FOR MATERIAL CHANGES.
- 5. THE CONTRACTOR SHALL WARRANTY ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF TWO YEARS AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR SPECIFICATIONS.
- 6. REFER TO IRRIGATION PLANS FOR LIMITS AND TYPES OF IRRIGATION DESIGNED FOR THE LANDSCAPE. IN NO CASE SHALL IRRIGATION BE EMITTED WITHIN THE MINIMUM DISTANCE FROM BUILDING OR WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT. ALL IRRIGATION DISTRIBUTION LINES, HEADS AND EMITTERS SHALL BE KEPT OUTSIDE THE MINIMUM DISTANCE AWAY FROM ALL BUILDING AND WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT.
- 7. LANDSCAPE MATERIAL LOCATIONS SHALL HAVE PRECEDENCE OVER IRRIGATION MAINLINE AND LATERAL LOCATIONS. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
- 8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE EXISTS IN ALL LANDSCAPE AREAS. SURFACE DRAINAGE ON LANDSCAPE AREAS SHALL NOT FLOW TOWARD STRUCTURES AND FOUNDATIONS. MAINTAIN SLOPE AWAY FROM FOUNDATIONS PER THE GEOTECHNICAL REPORT RECOMMENDATIONS. ALL LANDSCAPE AREAS BETWEEN WALKS AND CURBS SHALL DRAIN FREELY TO THE CURB UNLESS OTHERWISE IDENTIFIED ON THE GRADING PLAN. IN NO CASE SHALL THE GRADE, TURF THATCH, OR OTHER LANDSCAPE MATERIALS DAM WATER AGAINST WALKS. MINIMUM SLOPES ON LANDSCAPE AREAS SHALL BE 2%; MAXIMUM SLOPE SHALL BE 30% UNLESS SPECIFICALLY IDENTIFIED ON THE PLANS OR APPROVED BY THE OWNER'S REPRESENTATIVE.
- 9. PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENED TO A DEPTH OF 8" 12" AND AMENDED PER SPECIFICATIONS.
- 10. ALL LANDSCAPED AREAS ARE TO RECEIVE ORGANIC SOIL PREPARATION AS SPECIFIED IN PLANTING DETAILS AND SPECIFICATIONS.
- 11. TREES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DRAINAGE AREAS, OR UTILITY EASEMENTS.

 CONTACT OWNER'S REPRESENTATIVE FOR RELOCATION OF PLANTS IN QUESTIONABLE AREAS PRIOR
 TO INSTALLATION.
- 12. THE CENTER OF EVERGREEN TREES SHALL NOT BE PLACED CLOSER THAN 8' AND THE CENTER OF ORNAMENTAL TREES CLOSER THAN 6' FROM A SIDEWALK, STREET OR DRIVE LANE. EVERGREEN TREES SHALL NOT BE LOCATED ANY CLOSER THAN 15' FROM IRRIGATION ROTOR HEADS. NOTIFY OWNER'S REPRESENTATIVE IF TREE LOCATIONS CONFLICT WITH THESE STANDARDS FOR FURTHER DIRECTION.
- 13. ALL EVERGREEN TREES SHALL BE FULLY BRANCHED TO THE GROUND AND SHALL NOT EXHIBIT SIGNS OF ACCELERATED GROWTH AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
- 14. ALL TREES ARE TO BE STAKED AND GUYED PER DETAILS FOR A PERIOD OF 3 YEARS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STAKES AT THE END OF 3 YEARS FROM ACCEPTANCE OF LANDSCAPE INSTALLATION BY THE OWNER'S REPRESENTATIVE. OBTAIN APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO REMOVAL.
- 15. ALL TREES INSTALLED ABOVE RETAINING WALLS UTILIZING GEO-GRID MUST BE HAND DUG TO PROTECT GEO-GRID. IF GEO-GRID MUST BE CUT TO INSTALL TREES, APPROVAL MUST BE GIVEN BY OWNER'S REPRESENTATIVE PRIOR TO DOING WORK.
- 16. ALL TREES IN SEED OR TURF AREAS SHALL RECEIVE MULCH RINGS. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE FOR ANY TREES THAT WILL NOT BE MULCHED FOR EXCESSIVE MOISTURE REASONS.
- 17. ALL SHRUB BEDS ARE TO BE MULCHED WITH MIN. 3" DEPTH, SHREDDED BARK LANDSCAPE MULCH OVER SPECIFIED GEOTEXTILE WEED CONTROL FABRIC. ALL GROUND COVER AND PERENNIAL FLOWER BEDS SHALL BE MULCHED WITH 3" DEPTH SHREDDED BARK LANDSCAPE MULCH. NO WEED CONTROL FABRIC IS REQUIRED IN GROUNDCOVER OR PERENNIAL AREAS.
- 18. AT SEED AREA BOUNDARIES ADJACENT TO EXISTING NATIVE AREAS, OVERLAP ABUTTING NATIVE AREAS BY THE FULL WIDTH OF THE SEEDER.
- 19. EXISTING TURF AREAS THAT ARE DISTURBED DURING CONSTRUCTION, ESTABLISHMENT AND THE MAINTENANCE PERIOD SHALL BE RESTORED WITH NEW SOD TO MATCH EXISTING TURF SPECIES. DISTURBED NATIVE AREAS WHICH ARE TO REMAIN SHALL BE OVER SEEDED AND RESTORED WITH SPECIFIED SEED MIX.
- 20. CONTRACTOR SHALL OVER SEED ALL MAINTENANCE OR SERVICE ACCESS BENCHES AND ROADS WITH SPECIFIED SEED MIX UNLESS OTHERWISE NOTED ON THE PLANS.
- 21. ALL SEEDED SLOPES EXCEEDING 30% IN GRADE (3:1) SHALL RECEIVE EROSION CONTROL BLANKETS. PRIOR TO INSTALLATION, NOTIFY OWNER'S REPRESENTATIVE FOR APPROVAL OF LOCATION AND ANY ADDITIONAL COST IF A CHANGE ORDER IS NECESSARY.
- 22. WHEN COMPLETE, ALL GRADES SHALL BE WITHIN +/- 1/8" OF FINISHED GRADES AS SHOWN ON THE

LAYOUT NOTES

- 1. WRITTEN DIMENSIONS WILL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- 2. SHOULD SITE CONDITIONS BE DIFFERENT THAN WHAT IS INDICATED ON THE DRAWINGS CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY FOR CLARIFICATION.
- 3. CURVED WALKS AND CURB EDGES ARE INTENDED TO BE CONSTRUCTED WITH SMOOTH FLOWING CURVES. ANYTHING OTHER THAN SMOOTH FLOWING CURVES WILL BE REJECTED.
- 4. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.
- 5. THE CONTRACTOR SHALL PROVIDE A STAKED LAYOUT OF ALL SITE IMPROVEMENTS FOR INSPECTION BY THE OWNER'S REPRESENTATIVE AND MAKE MODIFICATIONS AS REQUIRED AT NO ADDITIONAL COST
- TO THE OWNER.

 6. THE CONTRACTOR SHALL INSTALL SLEEVING FOR IRRIGATION IMPROVEMENTS PRIOR TO INSTALLING CONCRETE FLATWORK. REFER TO IRRIGATION PLANS.
- LAYOUT WALKS, SCORE JOINTS AND PAVING PATTERNS AS CLOSELY AS POSSIBLE TO PLANS, DETAILS, AND SPECIFICATIONS. DO NOT DEVIATE FROM PLANS UNLESS SPECIFIC APPROVAL IS OBTAINED FROM THE OWNER'S REPRESENTATIVE.
- 8. ALL WORK SHALL BE CONFINED TO THE AREA WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. ANY AREAS OR IMPROVEMENTS DISTURBED OUTSIDE THESE LIMITS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IN THE EVENT THE CONTRACTOR REQUIRES A MODIFICATION TO THE CONSTRUCTION LIMITS, WRITTEN PERMISSION MUST BE OBTAINED FROM THE LANDSCAPE ARCHITECT PRIOR TO ANY DISTURBANCE OUTSIDE OF THE LIMITS OF WORK. SEE TECHNICAL SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR SUPERVISING ALL SAFETY SURFACING AND PAVEMENT DURING THE CURING PROCESS.

MAINTENANCE NOTES

TREES, SHRUBS AND GROUND COVERS

- MAINTAIN TREES, SHRUBS, GROUND COVERS AND PLANTS BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, RESTORING PLANTING SAUCERS, TIGHTENING AND REPAIRING STAKES AND GUYS WIRE SUPPORTS, AND RESETTING TO PROPER GRADES OR VERTICAL POSITION, AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
- 2. WATERING: MAINTAIN LARGE ENOUGH WATER BASINS AROUND PLANTS SO THAT ENOUGH WATER CAN BE APPLIED TO ESTABLISH MOISTURE THROUGHOUT ENTIRE ROOT ZONE. UTILIZE MULCHES TO REDUCE EVAPORATION AND WATERING FREQUENCY. ALL TREES SHALL BE DRIP IRRIGATED.
- 3. PRUNE AS REQUIRED AT TIME OF PLANTING AND AS NEEDED TO CORRECT DAMAGE.
- 4. STAKES AND GUY WIRES: INSPECT REGULARLY TO PREVENT GIRDLING OF TRUNKS OR BRANCHES AND TO PREVENT RUBBING WHICH MIGHT CAUSE BARK WOUNDS. REMOVE AND REPLACE DAMAGED STAKES AND GUYS AS DIRECTED BY THE OWNER.
- 5. WEED CONTROL: MAINTAIN TREE AND SHRUB BASINS FREE OF WEEDS AND GRASSES ON A WEEKLY BASIS. FREQUENT SOIL CULTIVATION THAT MIGHT DESTROY SHALLOW ROOTS IS NOT PERMITTED.
- 6. INSECTS AND DISEASE CONTROL: CONTROL INSECTS AND DISEASE AS NECESSARY TO PREVENT DAMAGE TO THE HEALTH OR APPEARANCE OF PLANTS. USE ONLY APPROVED MATERIALS AND METHODS. DEAD, DISEASED, AND/OR BEETLE INFESTED TREES MUST BE REMOVED UPON IMMEDIATE RECEIPT OF WRITTEN OR VERBAL NOTICE TO THE PROPERTY OWNER.
- 7. DEAD PLANT MATERIALS SHALL BE REMOVED WITHIN (1) MONTH WITH PLANTING MATERIALS THAT MEET THE ORIGINAL INTENT OF THE APPROVED LANDSCAPE DESIGN.
- 8. NATURAL LANDSCAPE MATERIALS SUCH AS ROCK, STONE, BARK CHIPS AND SHAVINGS WHICH NO LONGER COVER THE AREA IN WHICH THEY WERE ORIGINALLY DEPOSITED SHALL BE REPLENISHED SO THAT THEY AGAIN ACHIEVE FULL COVERAGE TO A MINIMUM DEPTH AS SPECIFIED.

WEED CONTROL

- 1. IN AREAS THAT HAVE BEEN REGRADED AND/OR HAVE EXISTING WEED GROWTH, WEED CONTROL
- MEASURES APPROPRIATE TO THE AMOUNT OF GROWTH AND/OR SPECIES SHALL BE PROVIDED.

 2. THROUGHOUT THE GROWING SEASON WEED CONTROL OF NATIVE AREAS SHALL BE PREFORMED
- USING A SPOT TREATMENT METHOD.

 3. HERBICIDE SHALL BE APPLIED BY A LICENSED APPLICATOR OR UNDER THE DIRECT SUPERVISION OF A LICENSED APPLICATOR.

NATIVE SEED AREAS

- REFERENCE WEED CONTROL NOTES ABOVE.
- 2. MOW A MINIMUM OF ONCE YEARLY UPON ESTABLISHMENT OF GRASS.



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DATE: 04.09.2019 100% CD SET

SHEET TITLE: LANDSCAPE NOTES



PLANT SCHEDULE

— DECIDUOUS TREES
QTY.

COMMON NAME QUAKING ASPEN (SINGLE-STEM) 'CANADA RED' CHOKECHERRY 'SPRING SNOW' CRABAPPLE

COMMON NAME

CAC PEKING COTONEASTER

BOTANICAL NAME POPULUS TREMULOIDES 3" CALIPER

SIZE & CONDITION

2" CALIPER

B&B

2" CALIPER

SIZE & CONDITION

#5 CONTAINER

MINIMUM HT. 2'

PRUNUS VIRIGINIANA 'CANADA RED' MALUS 'SPRING SNOW'

— EVERGREEN TREES -

+	4	BCP	BRISTLECONE PINE	PINUS ARISTATA	6' - 10' HEIGHT	
— SHF	RUBS —					
	QTY.		COMMON NAME	BOTANICAL NAME	SIZE & CONDITION	N
	11	YMW	YELLOW MOUNTAIN WILLOW	SALIX MONTICOLA	# 5 CONTAINER	MINIMUM HT. 2'

BOTANICAL NAME

COTONEASTER ACUTIFOLIA

HIGH COUNTRY NAT	VE SEED MIXTURE	\(\psi \)
COMMON NAME	BOTANICAL NAME	% MIX
SLENDER WHEATGRASS	ELYMUS TRACHYCAULUS	15 %
BLUEBUNCH WHEATGRASS	PSEUDOROEGNERIA SPICATA	15 %
SANDBERG BLUEGRASS	POA SECUNDA	10 %
INDIAN RICEGRASS	ORYZOPSIS HYMENOIDES	10 %
IDAHO FESCUE	FESTUCA IDAHOENSIS	10 %
WESTERN WHEATGRASS	PASCOPYRUM SMITHII	10 %
BLUE WILDRYE	ELYMUS GLAUCUS	10 %
ROCKY MOUNTAIN FESCUE	FESTUCA SAXIMONTANA	10 %
TUFTED HAIRGRASS	DESCHAMPSIA CESPITOSA	5 %
CANBY BLUEGRASS	POA SECUNDA 'CANBAR'	5 %

TOTAL:

- 1. SEED APPLICATION RATES
- 1.1. BROADCAST: 20-25 LBS/ACRE
- 1.2. DRILLED: 15-20 LBS/ACRE
- 2. APPLY EROSION CONTROL NETTING TO ANY AREA WHICH IS VULNERABLE TO SOIL EROSION SUCH AS SWALES OR STEEP SLOPES (3:1 OR STEEPER)

THE PAVED AREA)

3. UTILIZE HYDROMULCH AND TACKIFIER OF 2,000 POUNDS PER ACRE WITH 3% TACKIFIER. 4. UNLESS NOTED OTHERWISE IN TECHNICAL SPECIFICATIONS, AMEND ALL TOPSOIL IN RESEED AREAS TO 2" DEPTH WITH COMPOST.

PARKING AREA LANDSCAPE REQUIREMENTS				
PROPOSED PAVED AREA	31,129 SF			
REQUIRED LANDSCAPE AREA (0.06% OF PROPOSED PAVED AREA) 1,868 SF				
PROPOSED LANDSCAPE AREA (AREA WITHIN 10' OF THE PERIMETER OF	6,401 SF			

INTERNAL VS. EXTERNAL				
LANDSCAPE REQUIRE	VIEIV I 2			
REQUIRED LANDSCAPE AREA	1,868 SF			
PROPOSED LANDSCAPE AREA	6,401 SF			
REQUIRED INTERNAL LANDSCAPE (50% OF REQUIRED LANDSCAPE AREA)	934 SF			
PROPOSED INTERNAL LANDSCAPE	1,001 SF			
REQUIRED EXTERNAL LANDSCAPE	934 SF			
PROPOSED EXTERNAL LANDSCAPE	5,400 SF			

TREE AND SHRUB LANDSCAPE REQUIREMENTS					
REQUIRED TREES	13				
PROPOSED TREES 24					
REQUIRED SHRUBS	26				
PROPOSED SHRUBS	26				

MT, BR AR, LM, EN

CHECKED BY: DRAWN BY:

VEGETATION REQUIREMENTS					
REQUIRED TREES	13				
PROPOSED TREES	24				
REQUIRED 3" CALIPER DECIDUOUS TREES (50% OF REQUIRED TREES)	7				
PROPOSED 3" CALIPER DECIDUOUS TREES	8				
REQUIRED 10' EVERGREEN TREE	1				
PROPOSED 10' EVERGREEN TREE	1				
REQUIRED 8' EVERGREEN TREE	1				
PROPOSED 8' EVERGREEN TREE	1				
REQUIRED 6' EVERGREEN TREE	2				
PROPOSED 6' EVERGREEN TREE	2				

PLANT SPECIES DIVERSITY					
REES REQUIRED ON SITE	13				
AXIMUM PERCENT OF ANY ONE PECIES (45%)	6				

SNOW STORAGE REQUIREMENTS	V-V-V-U
PROPOSED PAVED AREA	31,129 SF
REQUIRED SNOW STORAGE (25%)	7,782 SF
PROPOSED SNOW STORAGE	7,786 SF

AMENITY SCHEDULE

ITEM	DESCRIPTION	MANUFACTURER	CONTACT	MODEL NUMBER	COLOR / FINISH	NOTES
1	BIKE RACK 291 SERIES	DUMOR	CONTACT: 303.783.1452 Isabel Keegan Rocky Mountain Recreation isabel@rmrec.com	291	POWDERCOAT TEXTURED BLACK	QUANTITY: 4 DIMENSIONS: 36"H x 24"W x 6"L SURFACE MOUNT
2	PLB SOLAR LED BOLLARD LIGHT	FIRSTLIGHT TECHNOLOGIES	CONTACT: 303.623.1233 Brandon Harris CED Sales BHarris@ceddenver.com	PLB-102	POWDERCOAT BLACK	QUANTITY: 5 DIMENSIONS: 36" H; 10" TOP DIA.; 6" POST DIA. ALUMINUM MONUTING PLATE ON CONCRETE FOOTER

NOTES: ALL SITE FURNISHINGS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. 4 - 6 WEEK APPROXIMATE LEAD TIME.

MATERIAL SCHEDULE (CONTRACTOR TO SUBMIT SAMPLES FOR ALL ITEMS IN MATERIAL SCHEDULE FOR OWNER / ARCHITECT REVIEW AND APPROVAL.)

ITEM	DESCRIPTION	MANUFACTURER	PRODUCT NAME	SIZE / DIMENSIONS	COLOR / FINISH	NOTES
\bigcirc	CONCRETE SIDEWALK	N/A	N/A	REFER TO CIVIL PLANS	STANDARD GRAY LIGHT BROOM FINISH	REFER TO CIVIL FOR DEPTH AND INSTALLATION DETAILS
	CRUSHER FINES	PIONEER SAND OR APPROVED EQUAL	WALKWAY/DRIVEWAY GRAVEL	CRUSHER FINE ¹ / ₄ " MINUS	GREY BREEZE	REFER TO DETAIL #1 / L 3-02. SHALL BE CLEANED AND FREE OF DEBRIS AND ORGANIC MATTER
- C	LANDSCAPE MULCH	PIONEER SAND OR APPROVED EQUAL	NORTHWOODS ORGANICS WNW03255	SHREDDED BARK LANDSCAPE MULCH	NATURAL	REFER TO LANDSCAPE DETAILS AND TECHNICAL SPECIFICATIONS FOR INSTALLATION; 3" DEPTH

NOTES: REFERENCE ARCHITECTURAL / STRUCTURAL / CIVIL FOR ALL SUBGRADE INFORMATION. LANDSCAPE ARCHITECTURE SET TO SPECIFY: COLOR, FINISH, AND MANUFACTURER ONLY.



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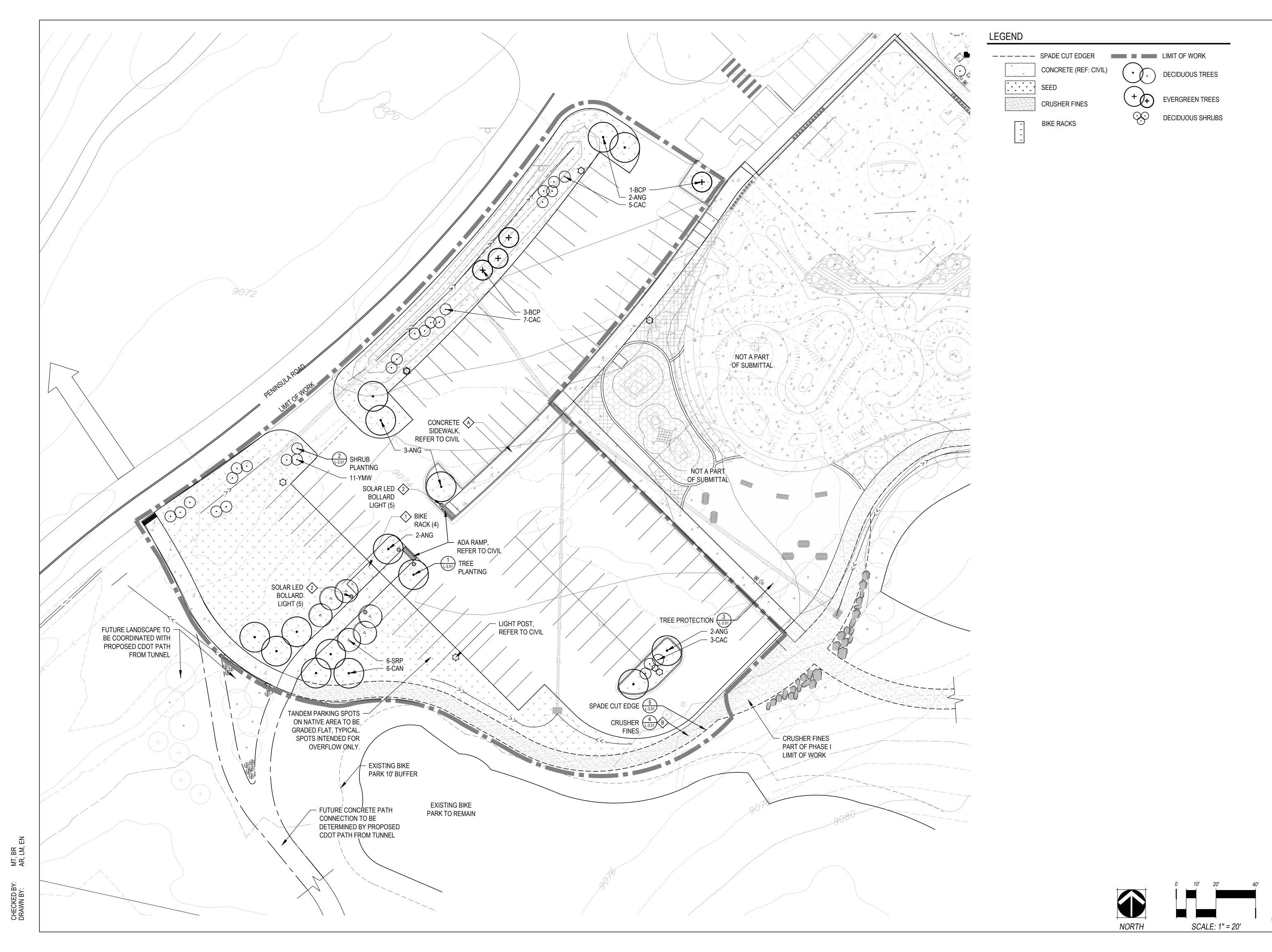
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SHEET TITLE: SCHEDULES





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KING LOT EXPANSION

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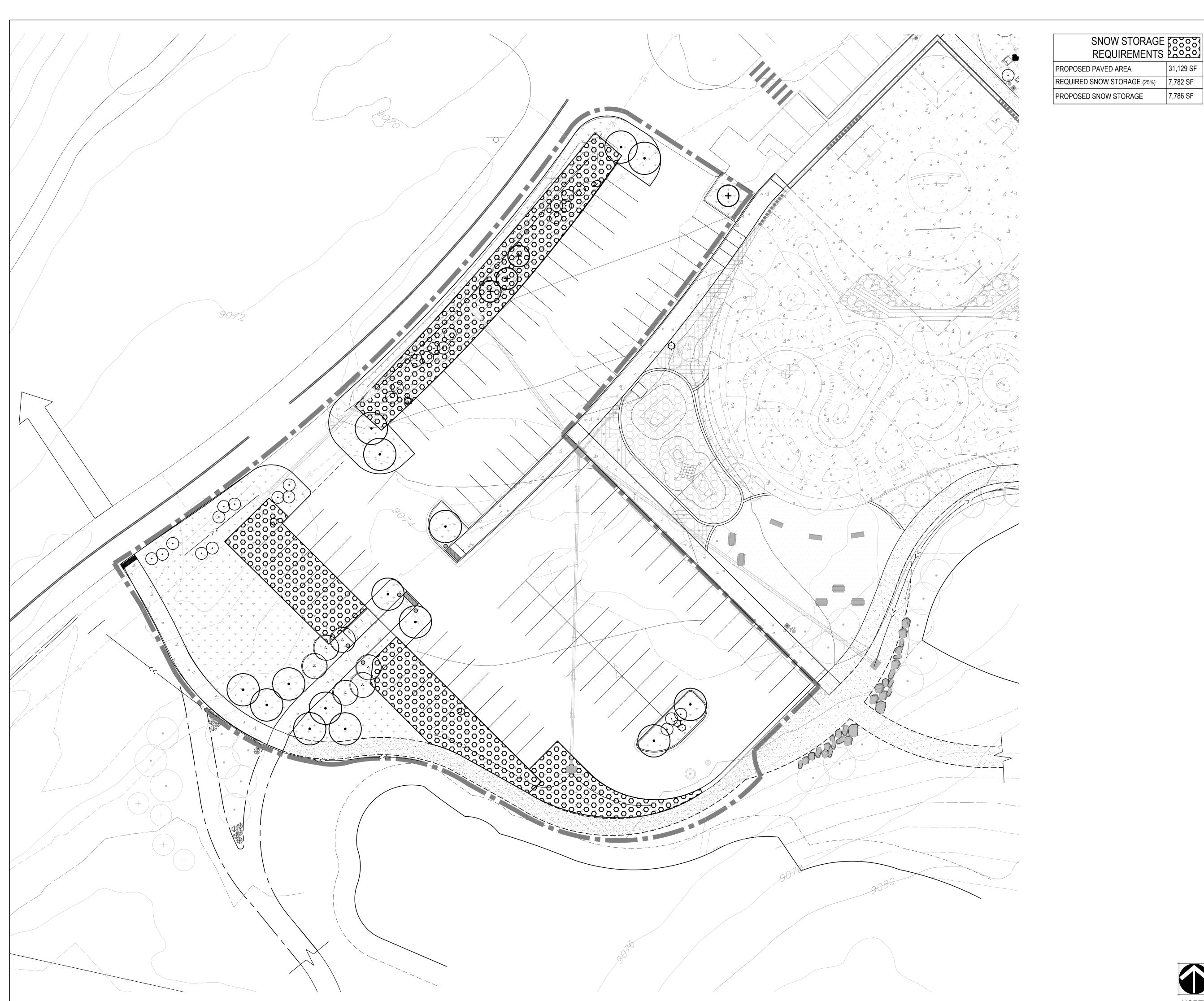
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SHEET TITLE: LANDSCAPE PLAN

L 1-02



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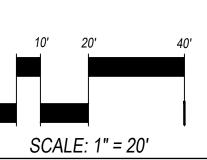
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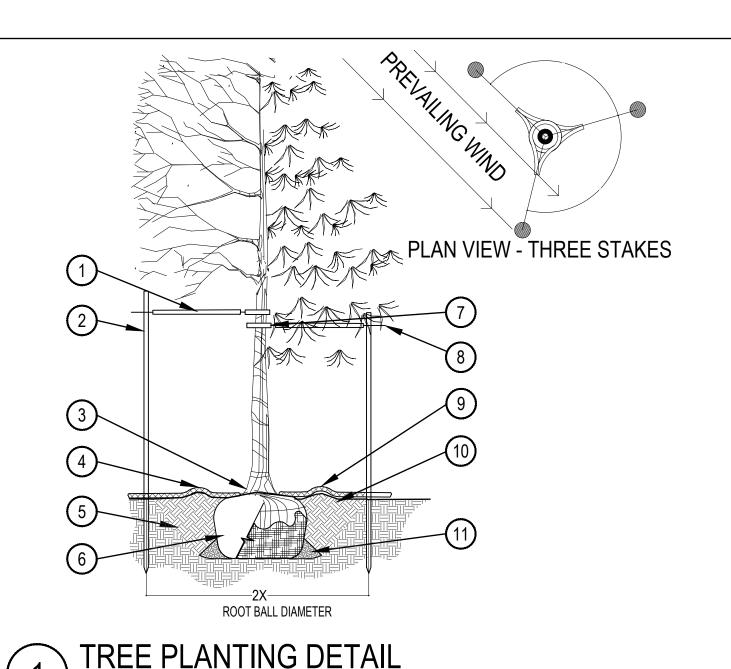


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SHEET TITLE: SNOW STORAGE PLAN

L 1-03





PRUNING NOTES:

- ALL PRUNING SHALL COMPLY WITH ANSI A300 STANDARDS
- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS CO-DOMINANT LEADERS AND BROKEN BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

STAKING NOTES:

BRANCH PROTECTION

PROTECT LOWER

BRANCHES OF TREE

CANOPY. PROVIDE

PLACE SIGNS:

KEEP OUT

TREE PROTECTION

EVERY 50' ATTACHED TO FENCING

CONSTRUCTION FENCING

OR EQUAL AT DRIPLINE

- STAKE TREES PER DIAGRAM. AFTER A MINIMUM OF 3 THREE YEARS CONFIRM TREE IS ESTABLISHED. CHECK FOR ROOTBALL STABILITY. APPLY HAND PRESSURE TO TRUCK OF TREE, WHEN ROOTBALL DOES NOT MOVE, REMOVE STAKING.
- WIRE OR CABLE SHALL BE MIN. 12 GAUGE, TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. NYLON STRAPS SHALL BE LONG

AND KEPT MOIST.

PRIOR TO GRADE CHANGE.

ACTIVITIES.

- ENOUGH TO ACCOMMODATE 1-1/2" OF GROWTH AND BUFFER ALL BRANCHES FROM WIRE ADJUST STAKING, STRAPS AND GUY WIRES ANNUALLY.
- 4. INSTALL SAFETY CAPS ON ALL STAKES.

- 1 PLACE MIN. ½" PVC PIPE AROUND EACH WIRE. EXPOSED WIRE
- SHALL BE MAX. 2" EACH SIDE (2) INSTALL STAKING PER
- (3) PLANT TREE SO THAT FIRST ORDER MAJOR ROOT IS 1"-2" ABOVE FINAL GRADE

SPECIFICATIONS

- (4) 3" DEEP MULCH RING PLACED A MINIMUM OF 4 FT. IN DIAMETER ON TOP OF WEED FABRIC. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK (FINISHED GRADE REFERENCES TOP OF MULCH)
- 5 1:1 SLOPE ON SIDES OF PLANTING
- 6 REMOVE ALL TWINE, ROPE, BURLAP AND WIRE FROM ALL OF ROOTBALL

1. ALL TREES AND SHRUBS TO BE PROTECTED AND PRESERVED SHALL BE PER DETAIL. GROUPING OF MORE THAN ONE TREE MAY

3. TO PREVENT ROOT SMOTHERING, SOIL STOCKPILES, SUPPLIES, EQUIPMENT OR ANY OTHER MATERIAL SHALL NOT BE PLACED OR

5. TRENCHES SHALL BE HAND DUG WITHIN THE DRIP LINE IN AREAS WHERE ROOTS TWO INCHES IN DIAMETER AND GREATER ARE

6. WHEN ROOT CUTTING IS UNAVOIDABLE, A CLEAN SHARP CUT SHALL BE MADE TO AVOID SHREDDING OR SMASHING. ROOT CUTS

SHOULD BE MADE BACK TO A LATERAL ROOT. WHENEVER POSSIBLE, ROOTS SHOULD BE CUT BETWEEN LATE FALL AND BUD

OPENING, WHEN ROOT ENERGY SUPPLIES ARE HIGH AND CONDITIONS ARE LEAST FAVORABLE FOR DISEASE CAUSING AGENTS

PRESENT, OR WHEN IN CLOSE PROXIMITY TO LOW BRANCHING TREES. WHENEVER POSSIBLE, ROOTS TWO INCHES OR GREATER IN

EXPOSED ROOTS SHALL BE COVERED IMMEDIATELY TO PREVENT DEHYDRATION. ROOTS SHALL BE COVERED WITH SOIL OR BURLAP

9. FENCING MATERIAL SHALL ENCIRCLE ANY TREE OR SHRUB WHOSE OUTER DRIP LINE EDGE IS WITHIN 20 FEET OF ANY CONSTRUCTION

11. FENCING MATERIAL SHALL BE SET AT THE DRIP LINE OR 15 FEET FROM TREE TRUNK, WHICHEVER IS GREATER, AND MAINTAINED IN

AVOIDED FOR EXISTING TREES TO REMAIN. RETAINING WALLS AND TREE WELLS ARE ACCEPTABLE ONLY WHEN CONSTRUCTED

12. ANY GRADE CHANGES (SUCH AS THE REMOVAL OF TOPSOIL OR ADDITION OF FILL MATERIAL) WITHIN THE DRIP LINE SHOULD BE

2. TREES AND SHRUBS TO BE PROTECTED AND PRESERVED SHALL BE IDENTIFIED ON THE TRUNK WITH SURVEY TAPE.

STORED WITHIN THE DRIP LINE OR WITHIN 15 FEET OF A TREE OR SHRUB TRUNK, WHICHEVER IS GREATER.

DIAMETER SHALL BE TUNNELED OR BORED UNDER AND SHALL BE COVERED TO PREVENT DEHYDRATION.

7. WATERING OF PROTECTED TREES IN WHICH ROOTS WERE CUT SHALL BE PROVIDED BY THE CONTRACTOR.

AN UPRIGHT POSITION THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

8. AUGER TUNNELING RATHER THAN TRENCHING SHOULD BE USED FOR UTILITY PLACEMENT WITHIN DRIP LINE.

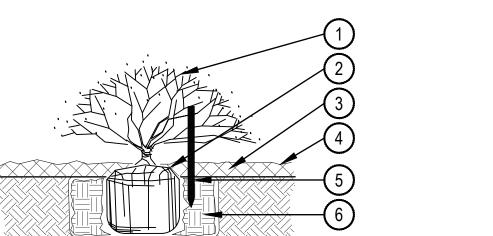
10. FENCING MATERIAL SHALL BE BRIGHT, CONTRASTING COLOR, DURABLE, AND A MINIMUM OF FOUR FEET IN HEIGHT.

4. TREE AND SHRUB ROOTS SHALL NOT BE CUT UNLESS CUTTING IS UNAVOIDABLE

- (7) GROMMETED NYLON STRAPS
- 8 4-6" HIGH WATER SAUCER IN **NON-TURF AREAS**
- (9) BACKFILL WITH PLANT MIX. PLANT MIX SHALL CONSIST OF EQUAL PARTS TOPSOIL, COMPOST, AND EXCAVATED SOIL. WATER THOROUGHLY WHEN **BACKFILLING**
- 10 PLACE SOIL AROUND ROOT BALL FIRMLY, DO NOT COMPACT OR TAMP. SETTLE SOIL WITH WATER TO FILL ALL AIR POCKETS
- (11) PLACE ROOT BALL ON UNDISTURBED SOIL TO PREVENT SETTLEMENT

SCALE: 3/16" = 1'-0"

SCALE: 1/8" = 1'-0"



WOOD PRIOR TO PLANTING

(2) SET SHRUB ROOT-BALL 1" HIGHER THAN FINISH BED GRADE

1) PRUNE ALL DEAD OR DAMAGED

(3) SPECIFIED MULCH, REFER TO

MATERIAL SCHEDULE: C (4) 2'-6" WOODEN STAKE DRIVEN INTO GROUND NEXT TO ROOTBALL. 18" OF THE STAKE

MUST BE VISIBLE (5) AMENDED TOPSOIL, REFER TO SPECIFICATIONS. TILL SOIL TO MATCH SHRUB CONTAINER

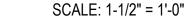
6 FINISH GRADE

- 1. BROKEN OR CRUMBLING ROOT-BALLS WILL BE REJECTED
- 2. CARE SHOULD BE TAKEN NOT TO DAMAGE THE SHRUB OR ROOT-BALL WHEN REMOVING IT FROM ITS CONTAINER

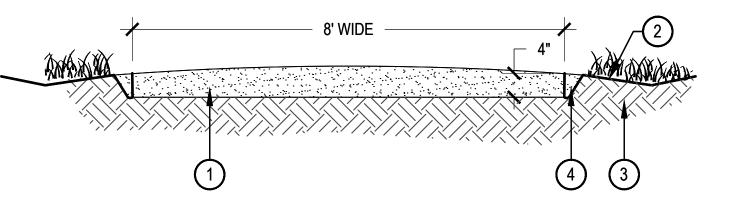
2X CONTAINER

- 3. ALL JUNIPERS SHOULD BE PLANTED SO THE TOP OF THE ROOT-BALL OCCURS ABOVE THE
- FINISH GRADE OF THE MULCH LAYER
- 4. FILL PLANT PIT WITH 1/2 SPECIFIED SOIL MIX AND 1/2 PIT SOIL
- 5. DIG PLANT PIT TWICE AS WIDE AND HIGH AS THE CONTAINER

SHRUB PLANTING IN NATIVE AREAS



- (1) COMPACTED CRUSHER FINES
- 2 SLOPE ADJACENT GRADE AWAY FROM TRAIL, SWALE IF **NECESSARY**
- (3) COMPACTED SUBGRADE, 95% PROCTOR DENSITY
- (4) SPADE CUT EDGER, REFER TO DETAIL 5, SHEET L 3-01



- **COMPACTION NOTES:** 1. COMPACT WET FOR BEST RESULTS.
- 2. USE A SMALL (4') RIDING ROLLER TO COMPACT TRAIL.
- 3. CROWN TRAIL IN FLAT AREAS (AS SHOWN).
- 4. CROSS-SLOPE TRAIL AT 1-2% WITH GRADE WHERE TOPOGRAPHY DICTATES.
- 5. REFER TO CIVIL SET FOR GRADING.

REVEGETATION NOTES:

- 1. RE-SEED DISTURBED EDGES OF TRAIL UPON COMPLETION OF TRAIL CONSTRUCTION.
- 2. FOLLOW SEEDING SPECIFICATIONS AS PROVIDED BY LANDSCAPE ARCHITECT.

CRUSHER FINES

SCALE: 3/4" = 1'-0"

OWNER: TOWN OF FRISCO

1)))

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ROOT PROTECTION ZONE

VARIES PER TREE SIZE

SEE NOTE 11 FOR WIDTH

1 TYPICALLY IRRIGATED NATIVE

- 2 VERTICAL SPADE CUT EDGE FILLED WITH SPECIFIED MULCH. TAPER EDGE OF BED SO MULCH IS DEEPER AGAINST SPADED
- (3) SPECIFIED DEPTH OF MULCH (TYPICALLY WOOD MULCH 3"-4"
- 4 PLANTING BED OR CLEAN COBBLE
- (5) IRRIGATION HEADS SHOULD BE LOCATED ADJACENT TO MULCH BEDS, OFFSET HEAD INTO GRASS AREA TO ENSURE STABLE SUPPORT

1. IF IRRIGATION HEAD IS LOCATED ADJACENT TO MULCH BEDS, OFFSET HEAD INTO GRASS AREA TO ENSURE STABLE SUPPORT.

TREE AND SHRUB PROTECTION

SPADE CUT EDGE

TRUNK PROTECTION

CONSTRUCTION

REQUIRED IF WHEELED

EQUIPMENT INVOLVED

WITHIN 20' OR LESS

1" BOARDS NOT LESS

REACH FIRST SCAFFOLD

BRANCH. WIRE TO HOLD

BOARDS IN PLACE, NO

INCLUDE WRAPPING OF

BURLAP UNDER BOARDS.

NAILS PERMITTED

THAN 5' LONG OR TO

SCALE: 1/2" = 1'-0"

DATE: 04.09.2019

100% CD SET

SHEET TITLE: LANDSCAPE **DETAILS**

Know what's below.

Call before you dig

MT, BR AR, LM, EN CHECKED BY: DRAWN BY:

L 3-01

IRRIGATION GENERAL NOTES

- 1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL THE IMPROVEMENTS SHOWN ON THE PLANS.
- 2. THE CONTRACTOR SHALL COORDINATE AS NECESSARY WITH THE GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE FOR SUCCESSFUL COMPLETION OF THIS WORK.
- 3. THE CONTRACTOR ASSUMES ALL LIABILITY ASSOCIATED WITH THE MODIFICATION OF THE IRRIGATION SYSTEM DESIGN WITHOUT NOTIFYING THE OWNER'S REPRESENTATIVE.
- 4. ALL IRRIGATION EQUIPMENT IS TO BE AS SPECIFIED OR APPROVED EQUAL PER THE DISCRETION OF THE OWNER'S REPRESENTATIVE.
- 5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT A THOROUGH SITE INSPECTION AND REVIEW OF THE PROJECT CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: LANDSCAPE PLAN, UTILITY PLAN, CIVIL PLAN, GRADING AND DRAINAGE PLAN AND ALL OTHER ASSOCIATED PLANS THAT AFFECT THIS WORK PRIOR TO BEGINNING CONSTRUCTION. IF THE CONTRACTOR OBSERVES ANY DISCREPANCIES AMONG THE CONSTRUCTION DOCUMENTS AND THE EXISTING CONDITIONS ON SITE, IT IS THEIR RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY.
- 6. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL AND STATE REGULATIONS AND INSTALL THE IRRIGATION SYSTEM AND ITS COMPONENTS PER THE MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS REQUIRED BY ANY LOCAL AND STATE AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION OVER THIS SITE.
- 7. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PAYING FOR TESTING OF THE BACKFLOW PREVENTER BY A STATE CERTIFIED INSPECTOR. CONTRACTOR SHALL PROVIDE CERTIFICATES TO OWNER'S REPRESENTATIVE.
- 8. THE CONTRACTOR MUST VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR FAILS TO DO SO AND DAMAGES ANY UNDERGROUND UTILITIES THROUGH THE COURSE OF HIS WORK THE IRRIGATION CONTRACTOR SHALL PAY FOR ANY REPAIR WORK ASSOCIATED WITH SAID DAMAGES.
- 9. IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN LANDSCAPE AREAS AND WITHIN THE PROJECT LIMITS. EQUIPMENT SHOWN OUTSIDE OF THESE LIMITS IS SHOWN FOR GRAPHIC CLARITY ONLY. IF THERE IS A QUESTION REGARDING THE LOCATION OF ANY COMPONENT OF THE IRRIGATION SYSTEM, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE. IF THE CONTRACTOR NEGLECTS TO NOTIFY THE NECESSARY PARTIES, THE CONTRACTOR SHALL PAY FOR ANY REPLACEMENT OR MODIFICATION TO INSURE PROPER LOCATION AND OPERATION OF THE IRRIGATION SYSTEM AND ITS COMPONENTS.
- 10. ALL IRRIGATION DISTRIBUTION LINES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO, MAINLINE, LATERALS, SPRAY HEADS, ROTORS, ROTARY SPRAYS, DRIP EMITTERS SHALL BE KEPT A MINIMUM DISTANCE OF 6' AWAY FROM ALL BUILDING AND WALL FOUNDATIONS, OR AS STIPULATED IN THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
- 11. ALL VALVE BOXES AND LIDS SHALL BE PLASTIC WITH BOLT LOCKING COVERS. CONTRACTOR SHALL PROVIDE AND INSTALL BOLT LOCKING KIT. LID COLOR TO BE GREEN. INSTALL PER THE CONSTRUCTION DETAILS. DO NOT INSTALL IN PAVED
- 12. ALL VALVE BOXES SHALL BE INSTALLED A MINIMUM OF 1'-0" FROM THE EDGE OF PAVED SURFACES AND 3'-0" FROM THE CENTERLINE OF DRAINAGE SWALES OR RETENTION BASINS. THE CONTRACTOR SHALL ADJUST ALL VALVE BOXES TO BE FLUSH FINISH GRADE.CONTRACTOR TO BRAND VALVE ID NUMBER ON ALL LIDS.
- 13. GROUNDING FOR THE IRRIGATION CONTROLLER IS TO BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS AND PER THE AMERICAN SOCIETY OF IRRIGATION CONSULTANTS GUIDELINE 100-2002 FOR EARTH GROUNDING ELECTRONIC EQUIPMENT IN IRRIGATION SYSTEMS FOUND AT www.asic.org/Design_Guides.aspx. FOR TECHNICAL SUPPORT REGARDING THE IRRIGATION CONTROLLER OR GROUNDING PLEASE CONTACT IRRITROL TECHNICAL SERVICES AT (800) 634-8873.
- 13. THE TWO WIRE DECODER CONTROLLER REQUIRES EACH STATION/CONTROL VAVLE AND SENSOR TO HAVE AN FD DECODER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE PROPER NUMBER OF DECODERS PER VALVE MANIFOLD. SURGE SUPPRESSION AND GROUNDING SHALL BE EVERY 500' OR PER EVER 8 DECODERS. THE RAIN/FREEZE SENSOR REQUIRES THE SD-210TURF DECODER

QTY. OF STATIONS (VALVES) PER MANIFOLD	REQUIRED FD DECODER
1 STATION	FD-101TURF
1 OR 2 STATIONS SIMULTANEOUSLY	FD-201TURF
1 TO 4 STATIONS SIMULTANEOUSLY	FD-202TURF
1 TO 4 STATIONS W/INDIVIDUAL CONTROL	FD-401TURF
SENSORS	SD-210TURF
SURGE SUPPRESSION	LSP1TURF

- 14. CONTRACTOR SHALL PULL AND STORE 30" MIN. OF WIRE INTO EACH VALVE BOX. CONTRACTOR SHALL EXTEND SPARE DECODER WIRES AT THE END OF ALL MAINLINE BRANCHES OR TWO-WIRE PATH BRANCHES SERVING THAT CONTROLLER. COIL 30" LENGTH MIN. OF SPARE WIRES IN A 10" ROUND VALVE BOX.
- 15. CONTROLLER WIRE SHALL BE 14GA MIN. UL APPROVED WIRE. COLOR CODED PER VALVE. TAPED AND BUNDLED EVERY 10'. CONTRACTOR SHALL USE UL APPROVED WIRE STRIPPER AND WATERPROOF CONNECTIONS AT ALL SPLICES AND CONNECTIONS POINTS.
- 16. CONTRACTOR SHALL INSTALL TRACER WIRE IN ALL PRESSURE MAINLINE TRENCHES. SEE IRRIGATION DETAILS FOR MORE INFORMATION.
- 17. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ADEQUATE VERTICAL SEPARATION BETWEEN ALL IRRIGATION DISTRIBUTION LINES AND ALL UTILITIES (EXISTING OR PROPOSED), CONDUIT, STORM WATER COMPONENTS, DRAINS, ETC.
- 18. PLANT MATERIAL LOCATIONS TAKE PRECEDENCE OVER IRRIGATION LINES. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL INCLUDING PERENNIAL BEDS.
- 19. THE CONTRACTOR SHALL STAKE THE LOCATION OF THE MAINLINE, DRIP IRRIGATION LINES, CONTROL VALVES, GATE VALVES, ETC. AND SCHEDULE A REVIEW WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- 20. LAYOUT DRIP LATERALS PARALLEL TO TOPOGRAPHY WHEREVER POSSIBLE. STAKE 3/4" DRIP TUBING IN PLACE AT 12" DEPTH AND BURY. INSTALL HOSE END FLUSHABLE TYPE END CAP AT ENDS OF ALL 3/4" POLYETHYLENE DRIP TUBING AND FLUSH THOROUGHLY BEFORE INSTALLING EMITTERS.
- 21. TREES SHALL BE IRRIGATED BY ROOT ZONE WATERING BUBBLERS, SEE EMITTER SCHEDULE FOR ADDITIONAL SHRUBS, GROUNDCOVER AND PERENNIALS SHALL BE IRRIGATED BY PRESSURE REGULATING SINGLE OUTLET EMITTERS. SEE EMITTER SCHEDULE FOR ADDITIONAL INFORMATION.
- 22. CONTRACTOR SHALL FINE TUNE AND ADJUST NOZZLE DIRECTION AND RADIUS TO REDUCE OVERSPRAY ONTO PAVING OR HARD SURFACES.

IRRIGATION GENERAL NOTES (CONT.)

- 23. CONTRACTOR SHALL INSTALL A QUICK COUPLER IN 10" VALVE BOX AT THE END OF ALL BRANCHES OF THE MAINLINE, OR AS SHOWN ON PLANS, FOR WINTERIZATION AND FLUSHING OF MAINLINE.
- 24. ESTABLISHMENT WATERING WILL REQUIRE UP TO TWICE AS MUCH IRRIGATION FOR A 21 DAY PERIOD. THE DESIGN IS BASED ON THE FOLLOWING PROJECTED WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES ARE BASED ON A 30-YEAR AVERAGE WEATHER DATA AND WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND WEATHER CONDITIONS ABOVE AND BELOW THE AVERAGE VALUES UTILIZED.
 - NATIVE SEED

1.00" PER WEEK (FOR ESTABLISHMENT)

- 25. THE CONTRACTOR SHALL PROVIDE A SEASONAL MAINTENANCE SCHEDULE WHICH SHALL BEGIN ON JUNE 1 AND END ON SEPTEMBER 1 TO INSURE THE EFFICIENCY AND LONGEVITY OF THE IRRIGATION SYSTEM. THE MAINTENANCE SCHEDULE SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING LIST OF BEST MANAGEMENT PRACTICES:
 - CHECK HEADS FOR COVERAGE AND LEAKAGE.
 - CHECK CONTROLLER PROGRAMMING AND ADJUST FOR SEASONAL CHANGES AS NECESSARY.
 - VERIFY THAT THE WATER SUPPLY AND PRESSURE ARE AS STATED IN THE DESIGN.
 - CERTIFY THE BACKFLOW PREVENTION DEVICE AND SUBMIT TEST RESULTS TO THE PROPERTY MANAGER.
 - PERIODICALLY VERIFY THE THE SENSORS IN THE IRRIGATION SYSTEM ARE OPERATING CORRECTLY.
 - WINTERIZATION AND SPRING START UP PROCEDURES

IRRIGATION POINT OF CONNECTION NOTES:

- POINT OF CONNECTION: THE POINT OF CONNECTION IS NEAR THE WEST END OF THE EXISTING PLAYGROUND AS SHOWN ON THE PLAN. CONNECT TO EXISTING MAINLINE STUB AT THE GATE VALVE, AND EXTEND MAINLINE TO CONTROL VALVES AS SHOWN. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES, OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS ASSOCIATED WITH THIS
- CONTROLLER LOCATION: THERE IS AN EXISTING TWO-WIRE CONTROLLER ON SITE. CONTRACTOR SHALL CONNECT WIRING AND ASSIGN AND CHECK STATIONS FOR NEW VALVES SHOWN ON THE PLAN, AND ADD EXTENSION MODULES IF NECESSARY. ALL EQUIPMENT INSTALLATION SHALL CONFORM TO ALL LOCAL CODES. CONTRACTOR SHALL COORDINATE FINAL LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- SYSTEM PRESSURE: THE SYSTEM HAS BEEN DESIGNED FOR A REQUIRED MINIMUM STATIC PRESSURE OF 70 PSI. MAXIMUM SAFE FLOW OF 36 GPM. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE PRESSURE IN THE FIELD AT THE POINT OF CONNECTION AND MAXIMUM DEMAND OF ANY VALVE OR PROGRAM BEFORE CONSTRUCTION BEGINS AND FOR NOTIFYING THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE DESIGN PRESSURE OF THE SYSTEM AND THE MEASURED PRESSURE IN THE FIELD. IF THE CONTRACTOR FAILS TO NOTIFY OWNER'S REPRESENTATIVE OF SUCH DISCREPANCIES, THEN THE CONTRACTOR ASSUMES ALL LIABILITY AND COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS TO ACCOMMODATE THE ACTUAL PRESSURE.

SLEEVING COORDINATION NOTES:

- INSTALLATION OF IRRIGATION SLEEVING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. SLEEVES SHALL BE INSTALLED PRIOR TO THE START OF PAVING OPERATIONS. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE IRRIGATION CONTRACTOR FOR LOCATION AND SIZING OF SLEEVES PRIOR TO THE START OF CONSTRUCTION.
- 2. THE CONTRACTOR SHALL SLEEVE ALL IRRIGATION DISTRIBUTION LINES, VALVE CONTROL WIRES AND COMMUNICATION WIRES UNDER ALL PAVED SURFACES, WALL FOOTERS, DRAINAGE CHANNELS, INLETS, CATCH BASINS, ETC.
- 3. ALL SLEEVES SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND EDGE OF ALL OBSTRUCTIONS. NO TEES, ELLS OR OTHER TURNS IN
- 4. MARK ALL CURBS OR PAVING WITH AN 'X' AT ALL SLEEVE LOCATIONS.

PIPING SHALL BE LOCATED UNDER ANY OBSTRUCTIONS.

1-50 CONTROL WIRES

5. SLEEVING SHALL BE INSTALLED PER THE SIZES AND QUANTITIES SHOWN ON THE PLANS BASED ON THE CHART BELOW. ALL MAINLINE, VALVE CONTROL AND COMMUNICATION WIRES, LATERALS AND 3/4" POLYETHYLENE DRIP TUBING UNDER PAVED SURFACES ARE TO BE INSTALLED IN SEPARATE SLEEVING

4" PVC (1)

THE TO BE INOTALLED IN OLI AUTHORIZED IN	O .
EEVED PIPE SIZE/WIRE QTY.	REQUIRED SLEEVE SIZE AND QTY.
3/4"-1" PIPING	4" PVC (1)
1-½" - 2" PIPING	4" PVC (1)

IRRIGATION SCHEDULE

_								
	SYMBOL DESCRIPTION MFR N			M	IODEL NO.	COMMENTS	DETAIL	
	POC	POINT OF CONNECTION	NA	EXISTING 1-1/2" IRRIGATION	REFER TO CIVIL SITE AND UTILITY PLANS			
	NOT IRRIGATION SHOWN CONTROLLER IRRITROL EXISTING				EG36-SPED)	PEDESTAL MOUNT 7 NEW VALVES		
	NOT SHOWN	TWO-WIRE VALVE DECODERS	RAIN BIRD	TWO-WIRE DECODER (FD- LINE SURGE PROTECTION	,	SEE IRRIGATION NOTES 13 & 14 FOR GROUNDING		
	×	GATE VALVE	WATTS	CARSON ROUND VALVE BO BRONZE GATE VALVE (WG	,	SIZE PER LINE	I 2-02/3	
	0	QUICK COUPLER	RAIN BIRD	CARSON ROUND VALVE BO 1" COUPLER (LRC-44)	OX (910)		I 2-01/5	
	•	VALVE ASSEMBLY SEED	RAIN BIRD	CARSON JUMBO VALVE BO SCH. 80 PVC BALL VALVE CONTROL VALVE (100/150-1	,		I 2-01/4	
	\oplus	VALVE ASSEMBLY DRIP	CARSON JUMBO VALVE BOX (1220) 1" SCH. 80 PVC BALL VALVE 1" CONTROL VALVE (100-PESB) 3/4" PRESSURE REGULATING FILTER (PRF-075) (30 PSI)			I 2-01/6		
	R-VAN 14 R-VAN 1318 R-VAN 1724 F	NATIVE SEED ROTARY	RAIN BIRD		118/1724 1812-SAM-P45) AND FIXED ROTARY STREAM 1812 AL-A-MATIC CHECK VALVE W/ 45 PSI	0.6" MATCHED PRECIPITATION RATE @ 45 PSI	I 2-01/8	
		SLEEVING	NA	SCHEDULE 40 PVC PIPE		SEE SLEEVING NOTES	I 2-01/1	
	PVC NA 1-1/2" CLASS 200 BE PVC PIPE ALL MAINLINE TO HAVE TRACER WIRE AND TAPE			I 2-01/2				
		PVC SEED LATERAL	NA	3/4" CLASS 200 PVC PIPE		UNLESS OTHERWISE NOTED ON PLAN	I 2-01/2	
	TREESHRUB	DRIP LATERAL	NA	3/4" POLYETHYLENE TUBIN	NG		I 2-01/2	
		FLUSH END CAP	NA	CARSON ROUND VALVE BO FLUSH END CAP	OX (910)		I 2-02/3	
		VALVE CALLOUT			EMITTER SCHEDULE			

VALVE CALLOUT			Γ	EMITTER SCHEDULE					
VALVE/STATION # ZONE DESIGNATION: T(TREES), S(SHRUBS), N(SEED) VALVE FLOW (GPM)	ON #	PLANT TYPE	EMITT	ER	QTY.	TOTAL GP			
		PERENNIALS/GRASSES	0.5 GPH ONE EACH	0.5 GPH					
	(SHRUBS),	DECIDUOUS SHRUBS	0.5 GPH	1	TWO EACH	1.0 GPH			
		EVERGREEN SHRUBS	0.5 GPH	1	TWO EACH	1.0 GPH			
			DECIDUOUS TREE	1.0 GPH	ł	SIX EACH	6.0 GPH		
	,	EVERGREEN TREE	1.0 GPH	ł	SIX EACH	6.0 GPH			
VALVE SIZE									

EMITTER NOTES

- . ALL PLANT MATERIAL SHALL BE IRRIGATED WITH RAINBIRD XB SERIES PRESSURE REGULATING EMITTERS. 2. EMITTER SCHEDULE IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL ADJUST EMITTER AND NUMBER OF EMITTERS BASED ON
- THE NEEDS OF INDIVIDUAL PLANTS OR PLANT HYDROZONES. 3. 1/4" DISTRIBUTION TUBING NOT TO EXCEED 8' IN LENGTH.
- 4 RAINBIRD DBC-025 DIFFLISER BLIG CAP AND TS-025 STAKE ON ALL 1/4" DISTRIBUTION TURING

4. NAMINDIND DBC-023 DIT 1 03EN DGC CAL AND 13-023 STANE ON ALE 1/4 DIGTNIDOTION TODING.					
NATIVE SEED					
SYMBOL	DESCRIPTION	IRRIGATION APPLICATION			
\(\psi\) \(\psi\) \(\psi\)	IRRIGATED	SHALL BE 12" POP-UP ROTARY, IRRIGATED AT APPROXIMATELY 60%-70%			
* * * * *	DRYLAND	COVERAGE FOR ESTABLISHMENT AND ARE ZONED SEPARATELY TO BE			
Ψ Ψ Ψ	SEED	TURNED OFF AFTER THE ESTABLISHMENT PERIOD.			



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SHEET TITLE: **IRRIGATION** NOTES

MT AR, LM, EN

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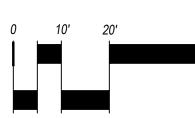
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SHEET TITLE: IRRIGATION PLAN

I 1-01



IRRIGATION SCHEDULE

NOT

SHOWN

NOT

SHOWN

O O F R-VAN 1318

DESCRIPTION DETAIL

I 2-02/3

I 2-01/5

I 2-01/4

I 2-01/6

I 2-01/8

I 2-01/1

I 2-01/2

I 2-01/2

I 2-01/2

12-02/3

POINT OF CONNECTION

IRRIGATION CONTROLLER

TWO-WIRE

VALVE

DECODERS

VALVE QUICK

COUPLER VALVE ASSEMBLY

SEED

VALVE ASSEMBLY

SEED

ROTARY

SLEEVING

MAINLINE

PVC SEED LATERAL

LATERAL

FLUSH END CAP

VALVE/STATION #
ZONE DESIGNATION:
T(TREES), S(SHRUBS),
N(SEED)

VALVE FLOW (GPM)
VALVE SIZE

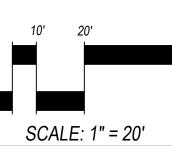
DESCRIPTION IRRIGATED

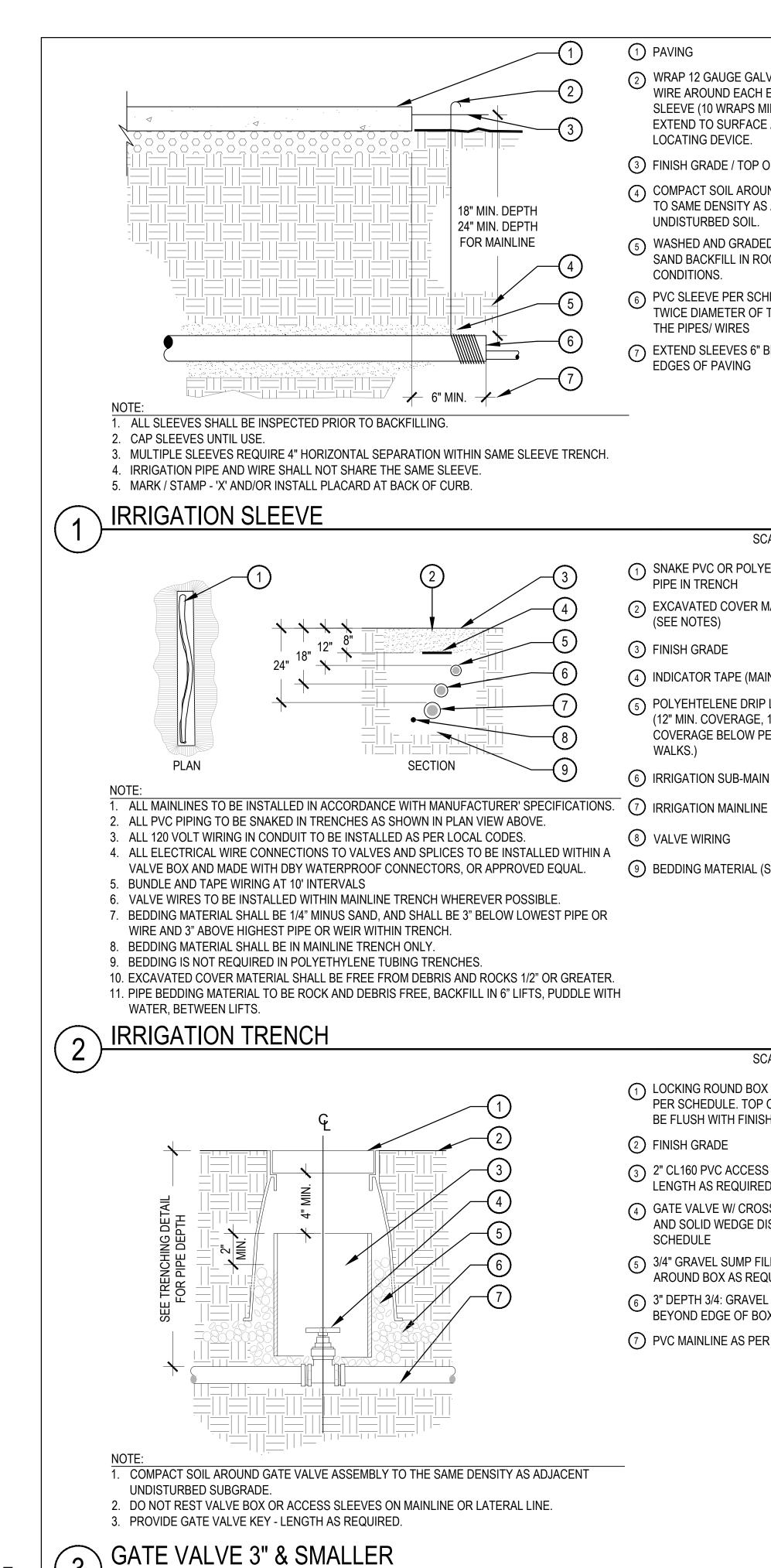
DRYLAND SEED

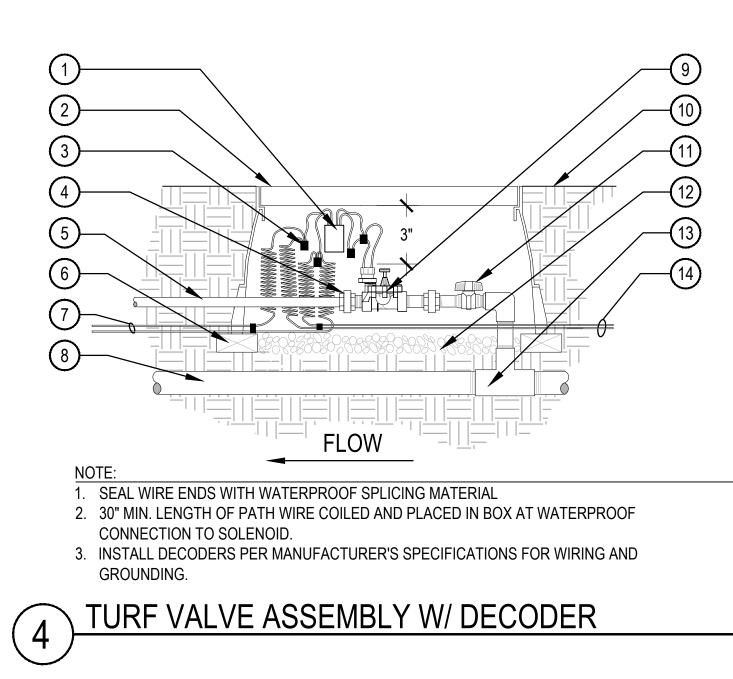
NATIVE SEED

SYMBOL

VALVE CALLOUT







1 PAVING

18" MIN. DEPTH

24" MIN. DEPTH

FOR MAINLINE

SECTION

SCALE: NTS

② WRAP 12 GAUGE GALVANIZED

WIRE AROUND EACH END OF

SLEEVE (10 WRAPS MIN.) AND

EXTEND TO SURFACE AS A

(4) COMPACT SOIL AROUND SLEEVE

(5) WASHED AND GRADED MORTAR

(6) PVC SLEEVE PER SCHEDULE.

(7) EXTEND SLEEVES 6" BEYOND

SNAKE PVC OR POLYETHYLENE

2 EXCAVATED COVER MATERIAL

4 INDICATOR TAPE (MAIN LINE)

(5) POLYEHTELENE DRIP LATERAL

6 IRRIGATION SUB-MAIN LATERAL

9 BEDDING MATERIAL (SEE NOTES)

1 LOCKING ROUND BOX & COVER PER SCHEDULE. TOP OF BOX TO

(3) 2" CL160 PVC ACCESS SLEEVE

(4) GATE VALVE W/ CROSS HANDLE

(5) 3/4" GRAVEL SUMP FILL IN AND

AROUND BOX AS REQUIRED.

(6) 3" DEPTH 3/4: GRAVEL EXTEND 6"

BEYOND EDGE OF BOX

7 PVC MAINLINE AS PER PLAN

AND SOLID WEDGE DISC PER

LENGTH AS REQUIRED.

2 FINISH GRADE

SCHEDULE

BE FLUSH WITH FINISH GRADE

SCALE: NTS

(12" MIN. COVERAGE, 18" MIN.

COVERAGE BELOW PEDESTRIAN

PIPE IN TRENCH

(SEE NOTES)

3 FINISH GRADE

WALKS.)

8 VALVE WIRING

THE PIPES/ WIRES

EDGES OF PAVING

SAND BACKFILL IN ROCKY SOIL

TWICE DIAMETER OF THE SUM OF

SCALE: NTS

TO SAME DENSITY AS ADJACENT

LOCATING DEVICE.

(3) FINISH GRADE / TOP OF DG.

UNDISTURBED SOIL.

CONDITIONS.

1. EACH QUICK COUPLER SHALL BE IN A SEPARATE VALVE BOX 2. PROVIDE (1) QUICK COUPLER KEY FOR EACH QUICK COUPLER VALVE. QUICK COUPLER SHALL HAVE YELLOW LOCKING RUBBER COVER 4. COMPACT SOIL AROUND GATE VALVE ASSEMBLY TO THE SAME DENSITY AS ADJACENT UNDISTURBED SUBGRADE. 5. ALL THREADED CONNECTIONS SHALL BE COATED WITH TEFLON TAPE.

(8) 24" #4 REBAR TO HOLD COUPLER IN PLACE W/ (2) STAINLESS STEEL CLAMPS

1 TWO WIRE DECODER

2 PLASTIC LOCKING VALVE BOX

(3) WATERPROOF CONNECTORS

(4) SCH. 80 PVC UNION (TYP.)

6 BRICK SUPPORTS 4 MIN.

5 3/4" POLY LATERAL

8 PVC MAINLINE

10 FINISH GRADE

9 VALVE ASSEMBLY

PER SCHEDULE. TOP OF BOX TO

BE FLUSH WITH FINISH GRADE

7 ID PATH WIRE TO NEXT DECODER

11) PVC BALL VALVE PER SCHEDULE

(12) 3/4" GRAVEL SUMP - 4" DEPTH

3 SCH. 80 TEE W/ SCH. 80 NIPPLE

6" ROUND BOX & COVER PER SCHEDULE. TOP OF BOX TO

3 QUICK COUPLING VALVE W/

(5) 3" DEPTH 3/4" GRAVEL BASE

LOCKING COVER PER SCHEDULE

EXTEND 6" BEYOND EDGE OF BOX

FLUSH WITH FINISH GRADE

SCALE: NTS

14 ID PATH WIRES FROM

CONTROLLER

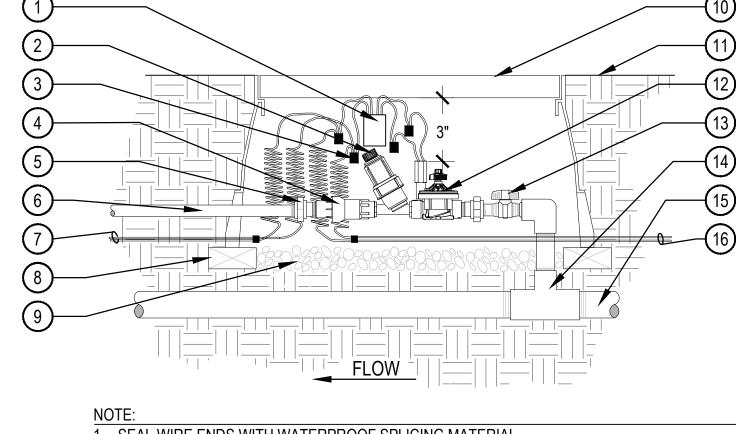
2 FINISH GRADE

4 SCH. 80 NIPPLE

6 1" PVC SWING JOINT

7 PVC MAINLINE

QUICK COUPLER SCALE: NTS 1 TWO WIRE DECODER 2 WYE FILTER PER SCHEDULE 3 WATERPROOF CONNECTORS 4 PRESSURE REGULATOR PER SCH.



 SEAL WIRE ENDS WITH WATERPROOF SPLICING MATERIAL 2. 30" MIN. LENGTH OF PATH WIRE COILED AND PLACED IN BOX AT WATERPROOF CONNECTION TO SOLENOID.

3. INSTALL DECODERS PER MANUFACTURER'S SPECIFICATIONS FOR WIRING AND GROUNDING.

DRIP VALVE ASSEMBLY W/ DECODER

15) PVC MAINLINE (16) WIRES FROM CONTROLLER

5 SCH. 80 PVC UNION

6 POLYETHYLENE DRIP LATERAL

7) WIRE TO NEXT DECODER(S)

8 BRICK SUPPORTS 4 MIN.

(9) 4" DEPTH GRAVEL SUMP.

(11) FINISH GRADE

12) VALVE ASSEMBLY

(10) PLASTIC LOCKING VALVE BOX PER

SCHEDULE. TOP OF BOX TO BE FLUSH WITH FINISH GRADE

(13) PVC BALL VALVE PER SCHEDULE

(14) SCH. 80 TEE W/ SCH. 80 NIPPLE

SCALE: NTS

1) FIELD DECODER (WITHOUT LINE SURGE PROTECTION: RAIN BIRD FD-101 TURF, FD-102TURF OR FD-202TURF FIELD DECODER

(2) LINE SURGE PROTECTOR: RAIN BIRD LSP-TURF M10008

1))))

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(3) BLUE WIRE FROM FIELD

DECODER (4) DB SERIES WIRE CONNECTOR:

RAIN BIRD DBTWC25 (1 OF 4) ⑤ GROUNDING ROD: 10 OHMS OR

6 TWO-WIRE / COMMUNICATION CABLE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, LINE SURGE PROTECTOR OR **ESP-LXD CONTROLLER)**

(7) WHITE WIRE FROM FIELD DECODER (1 0F 2)

LSP-1TURF SHALL BE INSTALLED EVERY 500-FEET OR FOR EVERY EIGHT DECODERS ON 8 12-INCH VALVE BOX WITH COVER: RAIN BIRD VB-S TD 2. MAX. LENGTH OF SECONDARY WIRE PATH (14 AWG) FROM DECODER TO SOLENOID IS 450 FT

(9) DB SERIES WIRE CONNECTOR: RAIN BIRD DBTWC25 (1 OF 4) BUILT-IN. FD-101TURF, FD-102TURF AND FD-202TURF REQUIRE SEPARATE LSP-1TURF SURGE

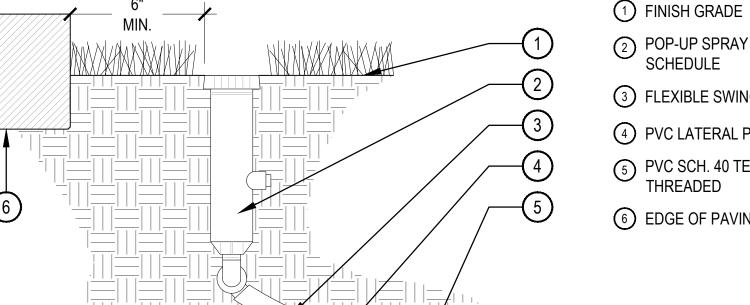
(10) SOLENOID WIRE (1 OF 2)

RAINBIRD LSP-1TURF AND LIGHTNING SUPPRESSOR

3. PLACE 3 FEET OF EXTRA WIRE IN EVERY VALVE BOX FOR EASIER SERVICING.

4. RAIN BIRD FD-401TURF AND FD-601TURF FIELD DECODERS COME WITH LSP-1TURF'S

SCALE: NTS



2 POP-UP SPRAY SPRINKLER PER SCHEDULE

(3) FLEXIBLE SWING JOINT - 18" MAX

4) PVC LATERAL PIPE

5 PVC SCH. 40 TEE OR ELL, THREADED

(6) EDGE OF PAVING OR HEADER

AFTER FLUSHING HEADS, REGRADE AND COMPACT AS NEEDED TO RETURN TO FINISH GRADE

SPRINKLERS SHALL BE MIN. 6" FROM ANY WALLS, WALKS, COURTS, AND12" FROM TURF EDGE. 3. ADJUST ALL SPRINKLERS HEADS SO THAT NO OVERSPRAY OCCURS ON ANY WALLS, WALKS,

COURTS, ETC. 4. ALL THREADED CONNECTIONS SHALL BE COATED WITH TEFLON TAPE.

5. COMPACT SOIL AROUND HEAD TO THE SAME DENSITY AS ADJACENT UNDISTURBED SUBGRADE.

POP-UP SPRAY ASSEMBLY

TWO-WIRE PATH.

PROTECTION.

1) DBC-25 DIFFUSER CAP

SCALE: NTS

(2) UNIVERSAL 1/4" TUBING STAKE (3) 1/4" DISTRIBUTION TUBING:

LENGTH NOT TO EXCEED 8' (4) TOP OF MULCH

(5) FINISH GRADE

6 PRESSURE COMPENSATING EMITTER PER EMITTER SCHEDULE. LOCATE ON TOP OR SIDE OF DRIP LATERAL

(7) 3/4" POLYETHYLENE TUBING **DEPTH PER DETAIL**

SINGLE OUTLET EMITTER

SCALE: NTS

SHEET TITLE: **IRRIGATION DETAILS**

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IRRIGATION
DETAILS

12.02