

LANDSCAPE PLAN REQUIRED NOTES:

1. Gross area of the development site is **2.81 acres**
2. Total acres of graded area is **2.23 acres**
3. Total acres of undisturbed area is **0.58 acres**
4. Total amount of open space required = 20% of the gross area of the parcel.

Total area of open space provided = **20.03%**  
(Landscape=9.68%, Frontage=10.35%)  
Courtyard/ Pedestrian Malls is 2% of net lot area excluding un-buildable wash area  
Courtyard required = 1,944 SF  
Courtyard provided = 2,533 SF
5. Landscaped buffer yards - refer to buffer yard table.
6. The revised 2006 grading exception conditions per OV12-06-16A apply to this project.
7. Perimeter streets adjacent to site:

Arterial Street - La Canada Drive (public 150' r.o.w.)  
Arterial Street - Naranja Drive (public 150' r.o.w.)
8. Landscape to conform to Oro Valley Landscape Code.
9. Mitigation of surveyed plants in the Native Plant Preservation Plan and previously surveyed plants will be incorporated in the landscape design.
10. Assurances for landscaping and re-vegetation bonds must be posted prior to issuance of grading permits. A landscape bond in the amount of 10% of the original landscape bond shall remain in place for a period of one year from the complete installation of landscape materials and any replacement materials.
11. Property owner shall maintain buffer yard plantings to ensure unobstructed visibility to motorists. All shrubs, accents, and groundcovers shall not exceed thirty (30") inches in height within site visibility triangles. Trees within site visibility triangles will be maintained to ensure that branches/foliage is not below a height of six (6') feet and the diameter should not exceed 1-foot when fully mature.
12. Property owners, lessees, and occupants shall maintain required landscape, irrigation, buffering, screening and rainwater harvesting system improvements per the approved plans.
13. In the event of abandonment of the site after grading/disturbance of natural areas, disturbed areas shall be re-vegetated with a non-irrigated hydro seed mix from OVZCR Addendum D: Approved revegetation seed mix.
14. All plant material shall meet the minimum standards contained in the current editions of the Arizona Nursery Association's Growers Committee Recommended Tree Specifications and the American Association of Nurserymen as to size, condition and appearance.
15. Property owner is responsible for maintaining the temporary irrigation system as long as necessary in order to transition plants over to natural sources. Irrigation shall be reduced three years after issuance of the first certificate of occupancy. Metered water use for landscape irrigation shall be reduced by fifty percent, five years from the date of the issuance of the certificate of occupancy. Any plant materials that die in transition, for any reason, shall be replaced in accordance with Sec. 27.6.E.4., Maintenance.
16. Any spaded or boxed tree transplanted on site that dies due to neglect or lack of maintenance shall be replaced with the same size and species of the original salvaged tree, as required by the salvage plan.
17. The limits of grading shall be staked in the field, in accordance with Section 27.6.B.7.c.ii of the Zoning Code. Disturbance outside the approved grading limits shall not be permitted.
18. No salvage of plants regulated by the Endangered Species Act and/or the Arizona Native Plant Law may occur without the issuance of the appropriate permit by the State Department of Agriculture.
19. Landscape materials shall not obstruct sight distances or vehicle turning movements.
20. Landscaped areas that are susceptible to damage by pedestrian or auto traffic shall be protected by appropriate curbs, tree guards or other devices.
21. Landscape shall be designed to minimize sediment, sand and gravel being carried into the streets from storm water or other runoff.
22. Landscape plan enables adequate plant spacing to ensure survivability at plant maturity.
23. Deep rooted vegetation and trees shall not be planted closer than 7.5' from a public water line. Exceptions for alternative design solutions such as root barriers shall be considered on a case-by-case basis.
24. Curb-way consisting of inorganic groundcover or plants not to exceed type 2 water use shall be provided between curb and all sidewalks."
25. All landscaped areas to be finished with a natural topping material to a depth of at least two (2) inches.
26. This project falls under development area D within the El Conquistador Country Club Planned Area Development (PAD) dated August 17, 1983, per 23.9.C.C and 23.4 table 23-2B, the underlying zoning designation is C-2.
27. Buffer yard table provided, see adjacent table.
28. No trails will be provided.

BUFFER YARD									
	Type	Size	Trees Required	Trees Provided	Shrubs Required	Shrubs Provided	Accents Required	Accents Provided	Screen Provided
North	B	30' x 350'	14	31	18	54	35	35	5' masonry wall
East (La Canada Drive)	B	30' x 322'	13	13	17	59	33	33	6' masonry wall @ drive-thru stacking area
South (Naranja Drive)	B	30' x 324'	13	14	17	70	33	33	6' masonry wall @ drive-thru stacking area
West	B	30' x 350'	14	27	18	50	35	35	5' masonry wall

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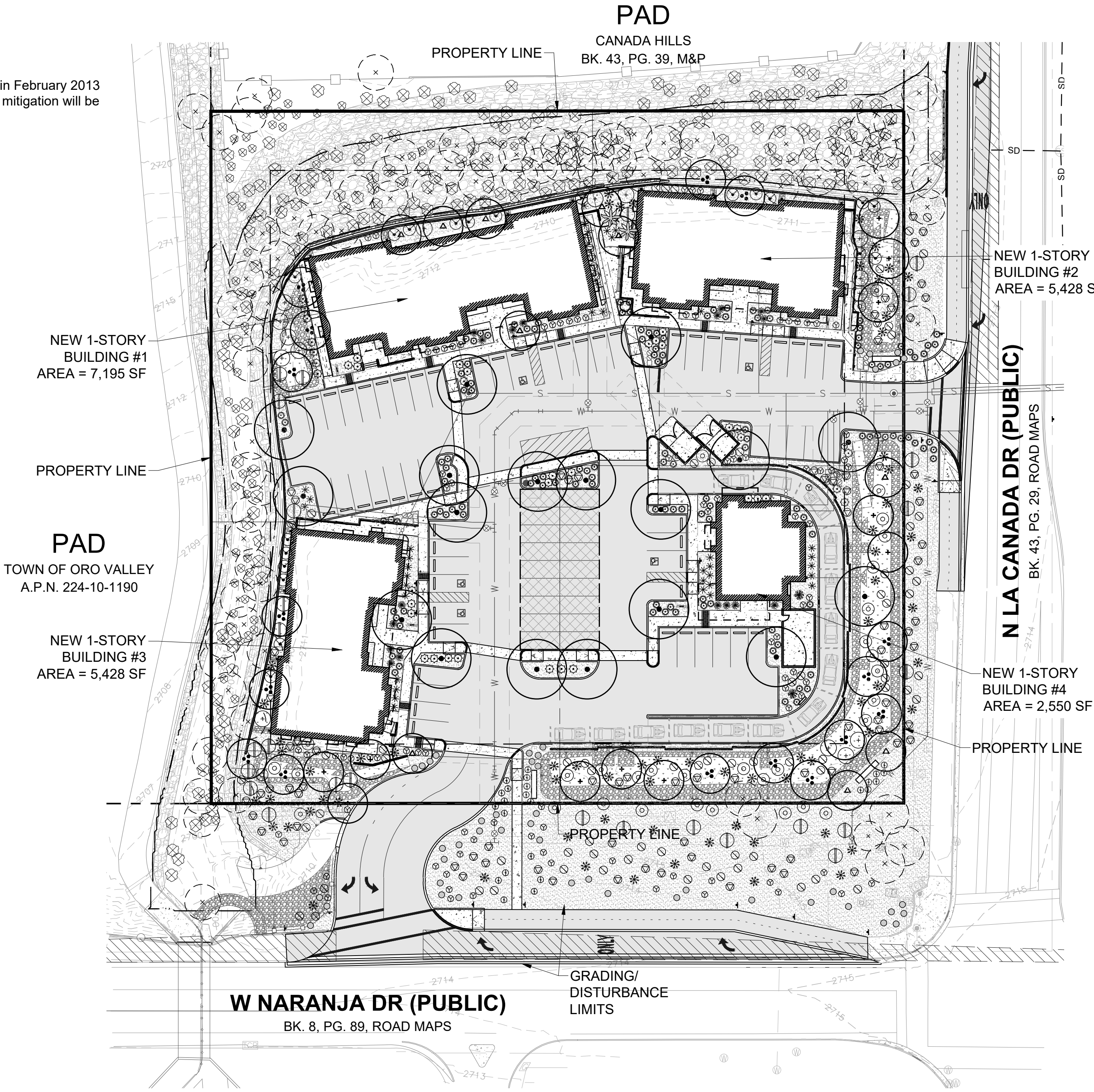
Refer to specifications for additional information on policies, performances, and products.

SITE RESOURCE SUMMARY:

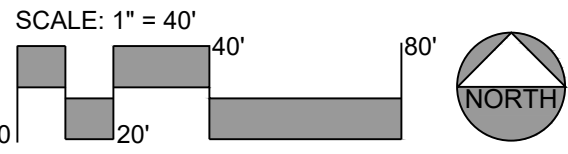
The native plant material was salvaged in February 2013 reference # IP1912-06 and the required mitigation will be provided:

Prosopis velutina (velvet mesquite)  
48" box - 1  
36" box - 6  
understory plants - 35

LANDSCAPE, IRRIGATION, & RAINWATER HARVESTING PLAN  
for NWC LA CANADA / NARANJA  
2400614



PROJECT OVERVIEW PLAN



PLANT MATERIAL SCHEDULE - WATER USE							
Botanic Name	Common Name	Quantity	Size	Water Use Type	ADWR Annual Use (gal.)	Total Annual Use (gal.)	Monthly Use (gal.)
Prosopis velutina	Velvet Mesquite	3	salvage	2	5,702	17,106	1,426
Prosopis velutina	Velvet Mesquite	1	48" box	2	5,702	5,702	475
Prosopis velutina	Velvet Mesquite	6	36" box	2	5,702	34,212	2,851
Prosopis velutina	Velvet Mesquite	6	24" box	2	5,702	34,212	2,851
Parkinsonia hybrid 'AZT'	AZT Thornless Palo Verde	11	24" box	2	3,948	43,428	3,619
Chilopsis linearis 'bubba'	Semi-seedless Desert Willow	10	24" box	2	5,702	57,020	4,752
Celtis reticulata	Netleaf Hackberry	18	24" box	2	5,702	102,636	8,553
Dodonea viscosa	Hop Seed	15	5 gal.	1	632	9,480	790
Simmondsia chinensis	Joboba	34	5 gal.	1	281	9,554	796
Viguiera parishii (Deltoidea)	Goldeneye	71	5 gal.	2	57	4,047	337
Calliandra eriophylla	Native Fairy Duster	86	5 gal.	1	70	6,020	502
Celtis pallida	Desert Hackberry	20	5 gal.	2	634	12,680	1,057
Vauquelinia californica	Arionza Rosewood	26	5 gal.	2	1,426	37,076	3,090
Baileya multiradiata	Desert Marigold	24	5 gal.	2	6	144	12
Melampodium leucanthum	Blackfoot Daisy	128	5 gal.	2	25	3,200	267
Penstemon parryi	Parry's Penstemon	45	5 gal.	2	57	2,565	214
Antigonon leptopus 'baja red'	Red Queen's Wreath	3	5 gal.	3	3,509	10,527	877
Yucca rostrata	Beaked Yucca	2	24" box	1	355	710	59
Dasyliiron wheeleri	Desert Spoon	69	5 gal.	1	110	7,590	633
Asclepias subulata	Desert Milkweed	94	5 gal.	2	57	5,358	447
Hesperaloe funifera	Giant Hesperaloe	40	5 gal.	1	110	4,400	367
Pedilanthus macrocarpus	Lady Slipper	18	5 gal.	2	25	450	38
Nolina microcarpa	Bear Grass	36	5 gal.	1	158	5,688	474
Aloe ferox	Cape Aloe	2	5 gal.	3	79	158	13
Total Plant Water Use						<b>356,943</b>	<b>Dodonea viscosa</b>

LINE LEGEND	
PROPERTY LINE	EXISTING SIGN
RIGHT-OF-WAY	EXISTING STREET LIGHT
ROADWAY CENTERLINE	EXISTING FIRE HYDRANT
OTHER PARCEL LINE	EXISTING SEWER MANHOLE
EASEMENT LINE	EXISTING WATER VALVE
EXISTING CONTOURS	EXISTING WATER METER
PROPOSED CONTOURS	EXISTING BACKFLOW PREVENTER
EXISTING CURB	EXISTING TELEPHONE PEDESTAL
EXISTING PAINT STRIPE	EXISTING UNKNOWN UTILITY
EXISTING PAVEMENT EDGE	EXISTING ELECTRIC PULL BOX
EXISTING CONCRETE	EXISTING TRANSFORMER
EXISTING RIPRAP	PROPOSED SIGN
PROPOSED CURB	PROPOSED SEWER CLEANOUT
PROPOSED PAINT STRIPE	PROPOSED WATER METER
PROPOSED ASPHALT	<b>R-2</b> ZONING DIVISION
PROPOSED CONCRETE	SVT SIGHT VISIBILITY TRIANGLE
PROPOSED RIPRAP	R RADIUS
100-YR FLOOD PLAIN LIMIT	P PAVEMENT (ASPHALT)
PROPOSED RAILING	C CONCRETE
EXISTING UNDERGROUND	TC TOP OF CURB
ELECTRIC	HP HIGH POINT
EXISTING SEWER	LP LOW POINT
EXISTING WATER	FFE FINISHED FLOOR ELEVATION
EXISTING EASEMENT	R.O.W. RIGHT-OF-WAY
PROPOSED SEWER	WATER HARVESTING AREA
PROPOSED WATER	WATERSHED BOUNDARY
PROPOSED FIRE SERVICE	GRADING LIMITS
PROPOSED DRAIN PIPE	SIGHT VISIBILITY TRIANGLE (SVT)

SHEET INDEX

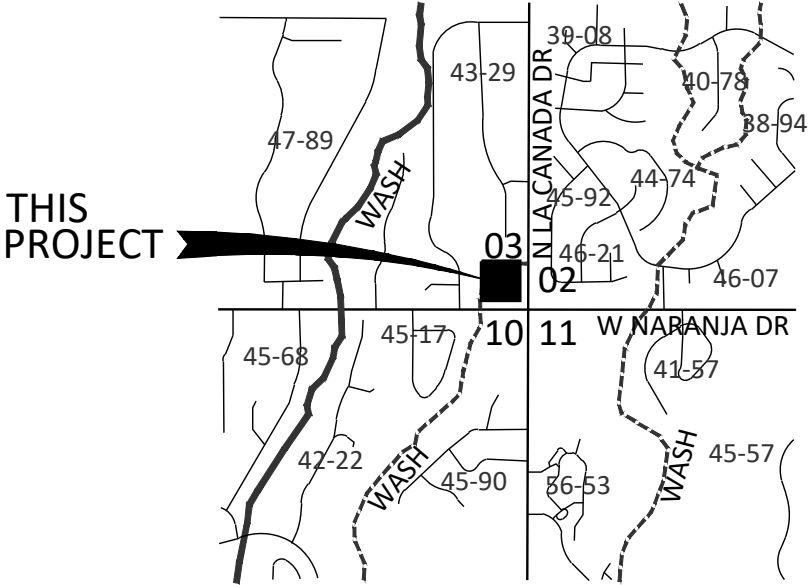
- L1.0 Cover sheet
- L2.0 Landscape plan
- L3.0 Irrigation plan
- L4.0 Rainwater harvesting plan
- L5.0 Landscape details
- L6.0 Irrigation details

owner/developer:  
LA CANADA/NARANJA LLC  
PO BOX 57037  
TUCSON, ARIZONA 85732  
attn: Robert Schwartz  
ph: (520) 444-5005  
email: bobonthecoast@usa.net

site address:  
1440 WEST NARANJA DRIVE  
ORO VALLEY, ARIZONA 85737

legal description:  
A PORTION OF LAND IN THE SE 1/4 OF THE SE 1/4 OF SECTION 03, T12S, R13E, G&SRB&M, TOWN OF ORO VALLEY, PIMA COUNTY, ARIZONA  
A.P.N. 224-10-002B

project description:  
LANDSCAPE, IRRIGATION, &  
RAINWATER HARVESTING PLAN for  
NWC LA CANADA / NARANJA



IN THE SE ¼ OF THE SE ¼ OF  
SECTION 03, T. 12 S., R. 13 E., G. & S. R. M.,  
TOWN OF ORO VALLEY, PIMA COUNTY, ARIZONA

LOCATION MAP  
NORTH  
3" = 1 MILE

APPROVED BY:

Digitally signed by Jose Rodriguez  
Date: 2024.11.13 11:02:37-0700  
TOWN ENGINEER (FOR RAINWATER HARVESTING PLAN ONLY) DATE

APPROVED BY:

Digitally signed by Bayer Vella  
Date: 2024.11.13 15:54:17-0700  
Bayer Vella  
PLANNING & ZONING ADMINISTRATOR - DATE

reference numbers:  
2302577, 2101733, 2101748, 2100814, OV1206-16A, IP1912-06, G1300016, G1400034, G1500014, G1702595

owner/developer:  
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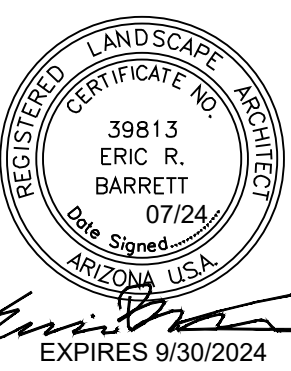
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ARC STUDIOS  
3117 E. Flower Street  
Tucson, Arizona 85716  
phone: 520.882.9655  
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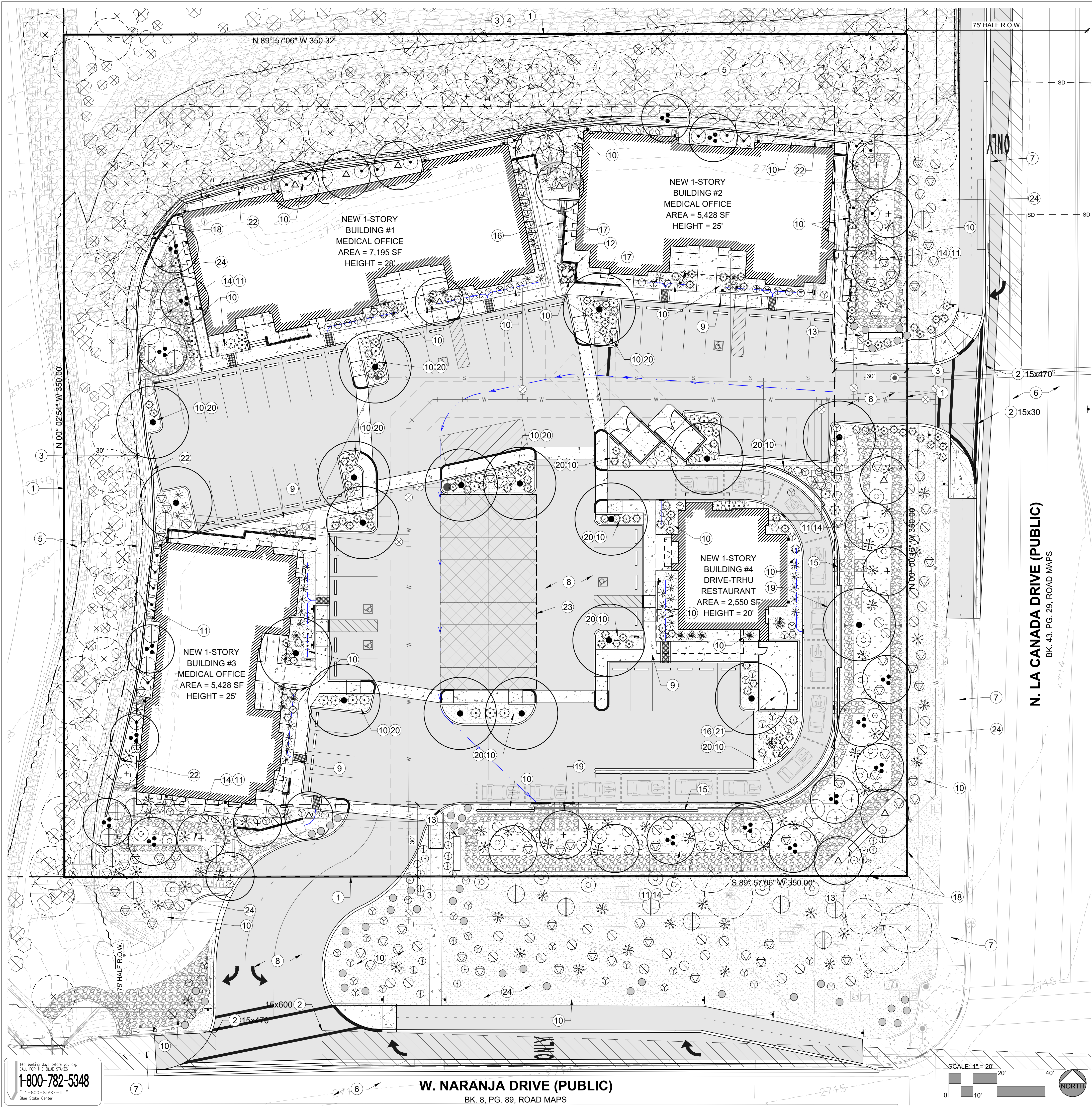
COVER SHEET

case number:  
**2400614**

date:  
2024.07.18  
project # -  
01-20080

L1.0  
1 of 6 Sheets





LANDSCAPE LEGEND

Furnish and install landscape material per plans, details and specifications. All plant material to meet ANA specifications and be of sound health and appearance.

Trees	Size	Qty
Prosopis velutina velvet mesquite	salvage	3
	48" box	1
	36" box	6
	24" box	6
Parkinsonia hybrid 'AZT' azt thornless paloverde	24" box	11
	1.5" caliper	
Chilopsis linearis 'Bubba' semi-seedless desert willow	24" box	10
	1.5" caliper	
Celtis reticulata netleaf hackberry	24" box	18
	1.5" caliper	

Existing tree to remain in place

Shrubs / Ground Covers

	Size	Qty
Dodonaea viscosa hop seed	5 gallon	15
Simmondsia chinensis jojoba	5 gallon	34
Viguiera parishii goldeneye	5 gallon	71
Calliandra eriophylla native fairy duster	5 gallon	86
Cassia covesii desert senna	5 gallon	20
Vauquelinia californica arizona rosewood	5 gallon	26
Baileya multiradiata desert marigold	5 gallon	24
Melampodium leucanthum blackfoot daisy	5 gallon	128
Penstemon parryi parry's penstemon	5 gallon	45

Vines

	Size	Qty
Antigonon leptopus 'Baja Red' red queen's wreath	5 gallon	3

Cacti / Succulents

	Size	Qty
Yucca rostrata beaked yucca	24" box	2
Dasyliion wheeleri desert spoon	specimen	69
Asclepias subulata desert milkweed	5 gallon	94
Hesperaloe funifera giant hesperaloe	5 gallon	40
Pedilanthus macrocarpus lady slipper	5 gallon	18
Nolina microcarpa bear grass	5 gallon	36
Aloe ferox cape aloe	5 gallon	2

GROUND COVER MATERIAL LEGEND

Furnish and install all material per plans, details, and specs.

Decorative rock 01	type:	screened rock
	size:	1/2"
	color:	coco brown - pioneer materials
	depth:	2"
	notes:	install in all landscape planting areas as indicated on plans
Decorative rock 02		
	type:	rip rap
	size:	3 - 6"
	color:	santa fe brown
	depth:	6"
	notes:	refer to civil paving plans, details and specifications
Decorative rock 03		
	type:	stabilized decomposed granite
	size:	1/4" minus
	color:	palomino gold
	depth:	3"
	notes:	stabilizer solutions stabilizer® w/ 15lbs of stabilizer® per ton of aggregate
Hydro-seed - mix 1		
		20 lbs pure live seed - refer to specs.

Botanical Name	Common Name	lbs/ac
Ambrosia deltoidea	triangle-leaf bursage	2.0
Acacia constricta	whitethorn acacia	1.0
Calliandra eriophylla	fairy duster	1.0
Encelia farinosa	brittlebush	1.0
Baileya multiradiata	desert marigold	1.0
Cassia covesii	desert senna	2.0
Psilostrophe cooperi	paper flower	1.0
Zinnia pumila	desert zinnia	1.0
Aristida purpurea	purple three-awn	1.0
Bouteloua curtipendula	side-oats grama	1.0
Muhlenbergia porteri	bush muhly	2.0
Sporobolus cryptandrus	sand dropseed	1.0
Eschscholzia mexicana	mexican poppy	1.0
Evolvulus arizonicus	arizona blue eyes	1.0
Lupinus sparsiflorus	desert lupine	2.0
Penstemon parryi	parry penstemon	1.0

RAINWATER HARVESTING NOTE:

Eighty percent (80%) of the area within each linear buffer yard segment must be graded to a minimum depth of four (4) inches to enable collection of rainwater.

LANDSCAPE KEY NOTES

- Property line
- Sight visibility triangle
- 30' buffer yard 'b'
- Existing public 30' drainage easement per bk. 43, pg. 29
- Existing grouted rip rap drainage channel
- Existing pavement
- Existing multi-use path
- Pavement - refer to civil
- Concrete sidewalk - refer to civil
- Decorative rock 01 - all landscape areas, typ.
- Hydro-seed mix 1 - desert seed mix
- Public art - by others
- Monument sign for reference only - by separate permit
- Water harvesting basin - 4" depressed landscape area, refer to civil plans for finish grades
- Masonry screen wall - minimum 3.5' for vehicle headlights along La Cañada Drive and enhanced 6' screen for drive-thru stacking lanes
- Courtyard patio - concrete patio
- Courtyard seating - park bench
- Grading/ disturbance limits
- Continuous tree canopy adjacent to the drive-thru aisle along La Cañada Drive and Naranja Drive
- Parking area landscape islands shall be designed to harvest rainwater, refer to civil plans for finish grades
- Outdoor seating, refer to architectural plans
- Masonry screen wall - 5' for adjacent screening
- Covered parking, refer to site plan
- Landscape within right-of-way shall require a license agreement

reference numbers:

2302577, 2101733, 2101748, 2100814, OV1206-16A, IP1912-06, G1300016, G1400034, G1500014, G1702595

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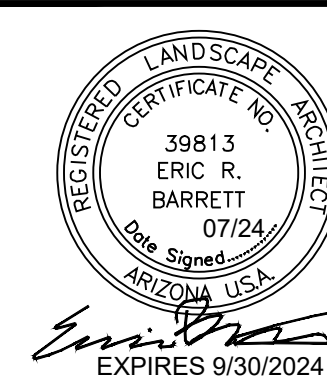
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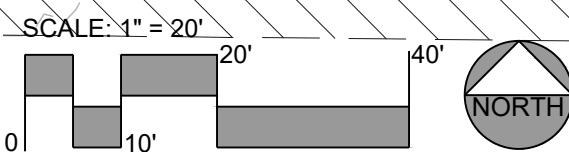
LANDSCAPE  
PLAN

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2 of 6 Sheets

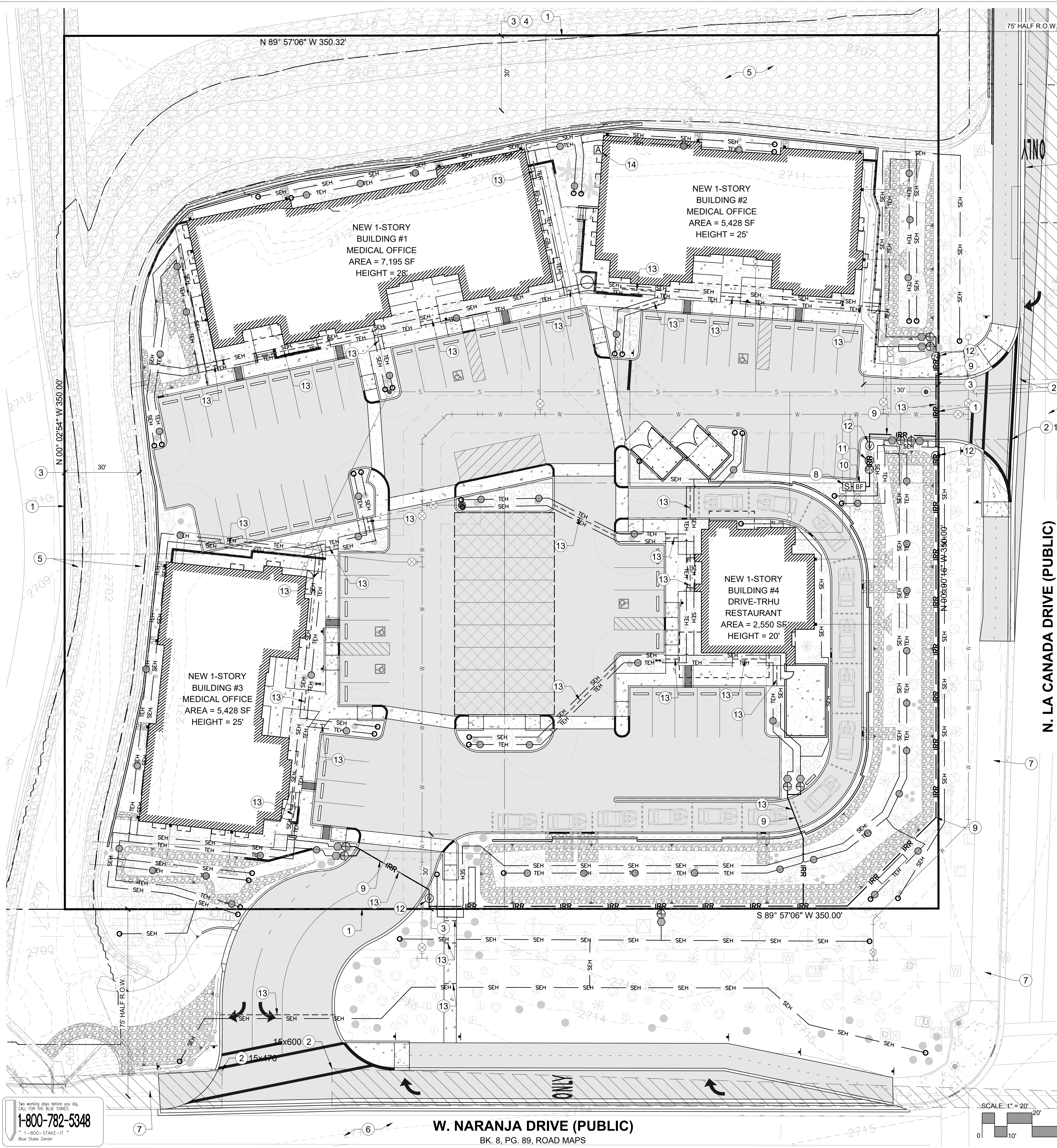
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W. NARANJA DRIVE (PUBLIC)  
BK. 8, PG. 89, ROAD MAPS



Refer to specifications for  
additional information on policies,  
performances, and products.





- IRRIGATION LEGEND**  
furnish and install all material per plans, details, and specifications  
[S] irrigation source / point of connection - irrigation meter - 3/4" (refer to civil water plans)  
[BF] reduced pressure backflow preventer - watts u009 - 1" w/ enclosure  
— irrigation mainline - sch. 40 pvc 1-1/2" w/ sch. 80 fittings, 2hr pressure test at 150 psi  
[A] irrigation controller - rain master eagle; rme12eg-none  
[MV] master valve and flow sensor: master valve - superior 3100 n.o. - 1"; flow sensor - cst fsi-t series - 1", ev-cab-sen  
[V] isolation valve - 1-1/2" lead free brass ball valve  
[R] remote control valve - irrtrol 700 series, 700-1  
— irrigation sleeve - class 200 pvc - 4" mainlines and multiple lines 2" single line and controller wiring  
— tree line - sch. 40 pvc - 3/4" unless otherwise shown  
— shrub line - sch. 40 pvc - 3/4" unless otherwise shown

- hose end cap  
● pressure regulating filter - rain bird - prb-qkchk-100  
● multi-outlet xeri-bug emitters rain bird - (6) 1gph and 2 gph ports - refer to emitter schedule  
● single-port emitters - install rain bird xeri-bug xbt-10 and xbt-20 - refer to emitter schedule

**IRRIGATION VALVE SCHEDULE**

Valve	Size	Type	Valve	Size	Type
A-1	1"	tree	A-6	1"	shrub
A-2	1"	shrub	A-7	1"	shrub
A-3	1"	tree	A-8	1"	tree
A-4	1"	shrub	A-9	1"	shrub
A-5	1"	tree	A-10		not used

- VALVE SCHEDULE NOTES:**  
1. (M) multi-port emitter, (s) single-port emitter. Contractor may select to provide multi-port emitters for shrub plant material.  
2. Contractor shall adjust controller for the proposed emitter schedule and provide watering to promote healthy growth of plant material for establishment.

- IRRIGATION GENERAL NOTES:**
- Irrigation and/or watering plans shall meet the minimum standards of the American Society of Irrigation Consultants.
  - The property owner is responsible for maintaining the temporary system as long as necessary in order to transition plants over to natural sources. Any plant materials that die in transition, for any reason, shall be replaced in accordance with Sec. 27.6.E.4., Maintenance.
  - Irrigation systems connected to potable water mains (public or private) shall be equipped with backflow preventers.
  - The annual water use for a project shall not exceed the annual landscape water plan.
  - Irrigation meter readings shall be used to determine compliance with the landscape water plan. Non-compliance is subject to penalties under Oro Valley Town Code.
  - Meter readings shall be taken, at a minimum, on an annual basis. Monthly readings may be required, at the discretion of the Planning and Zoning Administrator, in order to address noncompliance with the Water Plan. An initial meter reading shall be taken prior to the issuance of the certificate of occupancy and recorded for reference as part of the water plan.
  - Irrigation water shall not leave the landscaped areas and flow onto roads, parking areas or sidewalks.

LANDSCAPE WATER PLAN													JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL (gal.)
YEAR 1   Landscape Areas													12,976	16,426	26,106	35,118	44,335	49,381	46,085	39,906	34,397	25,540	15,551	11,122	356,943
																							100% ADWR		356,943
YEAR 2   Landscape Areas													12,976	16,426	26,106	35,118	44,335	49,381	46,085	39,906	34,397	25,540	15,551	11,122	356,943
																							100% ADWR		356,943
YEAR 3   Landscape Areas													12,976	16,426	26,106	35,118	44,335	49,381	46,085	39,906	34,397	25,540	15,551	11,122	356,943
																							100% ADWR		356,943
YEAR 4   Landscape Areas													-	-	26,106	35,118	44,335	49,381	46,085	39,906	26,775	-	-	-	267,707
																							75% ADWR		267,707
YEAR 5   Landscape Areas													-	-	-	35,118	44,335	49,381	46,085	3,554	-	-	-	-	178,472
																							50% ADWR		178,472

Note: This chart demonstrates how irrigation may be reduced with proper watering techniques and proactive maintenance management. It is the responsibility of the homeowners association and maintenance company to follow the intentions of the irrigation plans and landscape water plan to ensure that watering is adjusted. After the 5 year period, the buffer yard irrigation system may be turned off per the code, however to promote growth during the dry season (April, May, June) weekly and monthly watering should occur to sustain and continue to promote plant growth. Monthly data will vary depending on the ET data provided.

EMITTER SCHEDULE		Type	Outlets	Gph outlet	Gph plant
<b>Trees</b>					
Prosopis velutina	velvet mesquite	m	5	2.0	10.0
Parkinsonia hybrid 'AZT'	azt thornless palo verde	m	5	2.0	10.0
Chilopsis linearis 'Bubba'	semi-seedless desert willow	m	5	2.0	10.0
Celtis reticulata	netleaf hackberry	m	6	2.0	12.0
<b>Shrubs / Ground Covers</b>					
Dodonaea viscosa	hop seed	s/m	2	2.0	4.0
Simmondsia chinensis	jojoba	s/m	2	2.0	4.0
Viguiera parishii	goldeneye	s/m	2	1.0	2.0
Calliandra eriophylla	native fairy duster	s/m	2	1.0	2.0
Celtis pallida	desert hackberry	s/m	2	2.0	4.0
Vauquelinia californica	arizona rosewood	s/m	2	2.0	4.0
Baileya multiradiata	desert marigold	s/m	1	1.0	1.0
Melampodium leucanthum	blackfoot daisy	s/m	1	1.0	1.0
Penstemon parryi	parry's penstemon	s/m	1	1.0	1.0
<b>Vines</b>					
Antigonon leptopus 'Baja Red'	red queen's wreath	s/m	2	2.0	4.0
<b>Cacti / Succulents</b>					
Yucca rostrata	beaked yucca	s/m	1	0.5	0.5
Dasyliroon wheeleri	desert spoon	s/m	1	1.0	1.0
Asclepias subulata	desert milkweed	s/m	1	1.0	1.0
Hesperaloe funifera	giant hesperaloe	s/m	1	1.0	1.0
Pedilanthus macrocarpus	lady slipper	s/m	1	1.0	1.0
Nolina microcarpa	beargrass	s/m	1	1.0	1.0
Aloe ferox	cape alo	s/m	1	0.5	0.5

IRRIGATION SCHEDULE						TOTAL WATER (GAL.)*	
YEAR	ZONE	DAYS	FREQUENCY	TIME (MIN)			
1	Tree	T	2	60		356,943	
	Shrub	M,W,F	1	30			
2	Tree	T	2	60		356,943	
	Shrub	M,W,F	1	30			
3	Tree	T	2	60		356,943	
	Shrub	M,W,F	1	30			
4	Tree	T	2	60		267,707	
	Shrub	M,W,F	1	30			
5	Tree	T	2	60		178,472	
	Shrub	M,W,F	1	30			

\*must match Total Water from Landscape Water Plan  
\*\*maintenance contractor shall adjust run times to meet Total Water from Landscape Water Plan - refer to sheet L1.0

- IRRIGATION KEY NOTES**
- Property line
  - Sight visibility triangle
  - 30' buffer yard 'b'
  - Existing public 30' drainage easement per bk. 43, pg. 29
  - Existing grouted rip rap drainage channel
  - Existing pavement
  - Existing multi-use path
  - Irrigation source
  - Irrigation mainline
  - Backflow preventer
  - Master valve and flow sensor
  - Isolation valve
  - Irrigation sleeve - refer to paving & grading plans
  - Irrigation controller

owner/developer:  
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ph: (520) 444-5005  
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IRRIGATION  
PLAN

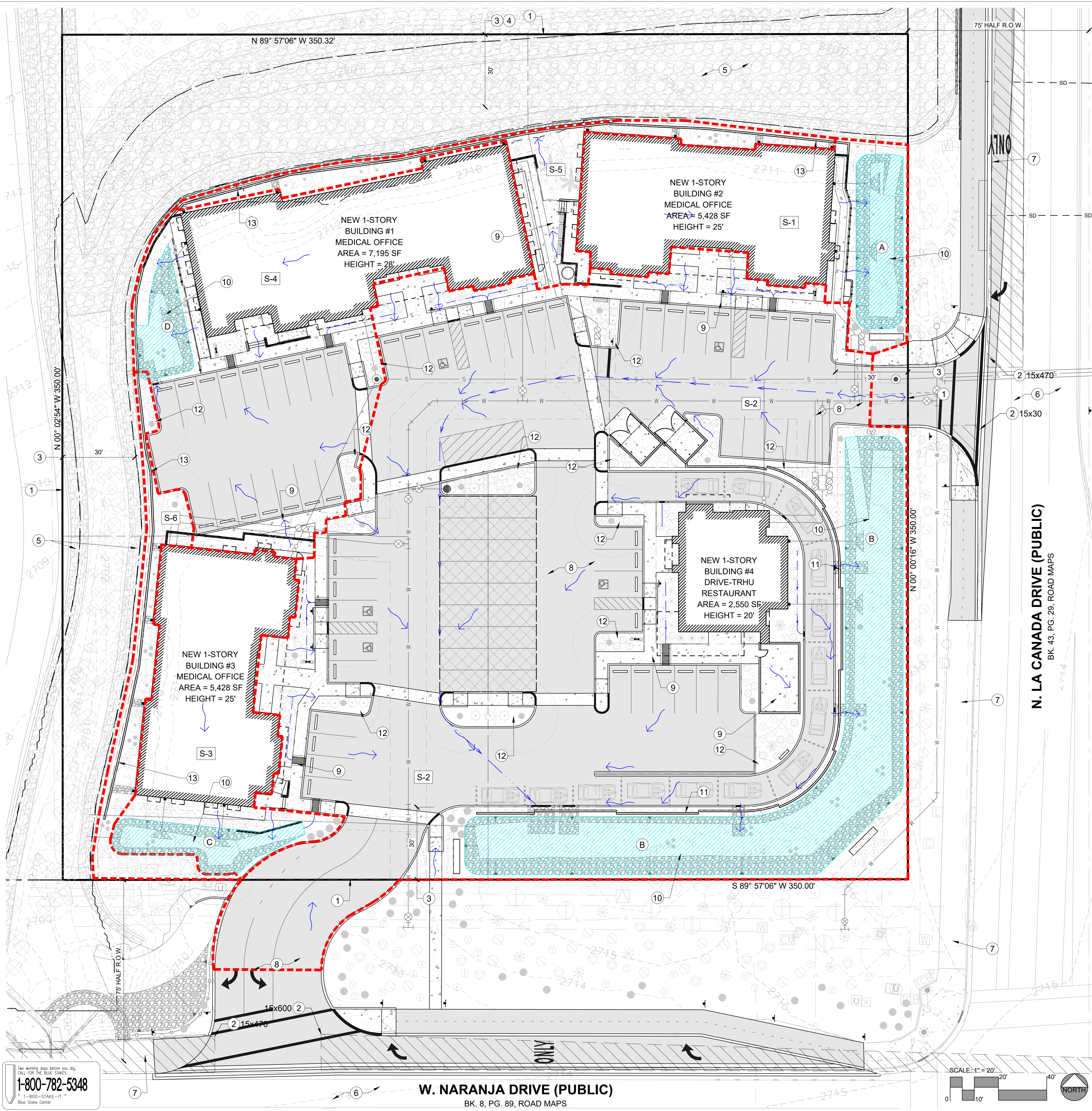
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3 of 6 Sheets

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WATER HARVESTING SUMMARY:

- Gross site area: 122,556 sf (2.81 acres)
- Total impervious areas: 74,661 sf (1.71 acres)
- Minimum volume of water harvesting:  
 $1.71 \times 3,000 \text{ gal.} = 5,130 \text{ gallons (686 cu ft)}$
- Passive water harvesting areas account for: 124,356 gallons (16,624 cu ft) as defined with final grading plan.
- Plant water demand per Arizona Department of Water Resources (ADWR) is estimated: 329,338 gallons per year with trees estimated at 60% of maturity due to typical regional maintenance.
- Estimated initial irrigation use: 329,338 gallons. This number is dependant on overall maintenance practices and care of the site. Please refer to the associated chart for water adjustments.
- Upon plant establishment, the irrigation use maybe reduced to approximately: 164,669 gallons per year.
- After the first year of installation, reports shall be provided to Oro Valley development services.
- Owner shall monitor the water usage every month and adjust the irrigation system to ensure overall water use is not exceeded per the approved plans.
- All plant material proposed within water harvesting areas are able to be inundated for short periods of time.
- Owner shall provide independent third party irrigation audit per approved Oro Valley Irrigation Inspector.

DRAINAGE SUB-AREA WATERSHED TOTALS:

S-1 8,712 sf (0.2 acres)	S-4 17,424 sf (0.4 acres)
S-2 60,954 sf (1.4 acres)	S-5 4,356 sf (0.1 acres)
S-3 8,644 sf (0.2 acres)	S-6 4,137 sf (0.1 acres)

PASSIVE RAINWATER HARVESTING BASIN TOTALS:

A 1,385 sf 2' max depth 2,006 cu ft	C 1,056 sf 3' max depth 2,148 cu ft
B 7,876 sf 1.83' max depth 11,330 cu ft	D 771 sf 2' max depth 1,140 cu ft

LANDSCAPE WATER REDUCTION PLAN:

Water plan shall begin at calendar year to align with meter reading and seasonal adjustments.

- 1st year - estimated water use for the first year: 329,338 gallons, based on multiplying Tucson's monthly ETo by the plant coefficient for each plant and combining for a annual total.
- 2nd year - continue using a 52 week watering period.
- 3rd year - continue using a 52 week watering period.
- 4th year - reduce watering of all stations from a 52 week period to a 28 week period while meeting the monthly water demand during that 28 week period (march thru september).
- 5th year - reduce watering of all stations from a 28 week period to a 17 week period while meeting the monthly water demand during that 17 week period (april into august).

RAINWATER HARVESTING KEY NOTES

- Property line
- Sight visibility triangle
- 30' buffer yard 'b'
- Existing public 30' drainage easement per bk. 43, pg. 29
- Existing grouted rip rap drainage channel
- Existing pavement
- Existing multi-use path
- Pavement - refer to civil
- Concrete sidewalk - refer to civil
- Water harvesting basin - 4" depressed landscape area, refer to civil plans for finish grades
- Masonry screen wall - minimum 3.5' for vehicle headlights along La Cañada Drive and enhanced 6' screen for drive-thru stacking lanes
- Parking area landscape islands shall be designed to harvest rainwater, refer to civil plans for finish grades
- Masonry screen wall - 5' for adjacent screening

RAINWATER HARVESTING PLAN GENERAL NOTES:

- Total area of all new impervious surfaces including pavements, sidewalks, hardscape areas and buildings is: 74,661 SF (1.71 acres)
- Required rainwater harvesting (VWHgal =  $\Sigma \text{AIS} \times 3,000 \text{ gal/acre}$ ):  $1.71 \times 3000 = 5,130 \text{ gallons}$
- Total volume of rainwater harvesting provided is: 169,060 gallons
- Rainwater harvesting measures employed for this development consist of the following:  
i. passive water harvesting basin A-D
- All rainwater harvesting measures shown on this plan shall be integrated into both the landscape installation as well as the site grading construction.
- Standing water for passive rainwater harvesting systems must infiltrate or dissipate within twelve (12) hours of rainfall cessation.
- All water collected and utilized for rainwater harvesting from parking lots and streets must meet the same discharge quality as stipulated within the Town of Oro Valley Drainage Criteria Manual, Section 11.7, First Flush Requirements.
- No passive rainwater harvesting basins shall be allowed within ten (10) feet of a building or vertical structural element greater than four (4) feet in height without special structural consideration and design approved by the Town Engineer and the Town Building and Safety Official.
- In order to assess compliance with the water plan when applicable, the irrigation meter or meters shall be assessed, at a minimum, on an annual basis by the Oro Valley Water Utility. When a violation occurs, as determined by the Planning and Zoning Administrator, meter reading may be repeated on a monthly basis until conformance is achieved.

Maintenance contractor (MC) shall gather meter readings of the irrigation meter and submit with their maintenance reports to the property manager.

MC shall review water usage each month and note any line breakage, damage and repairs.

MC shall notify property manager if usage is higher than estimated after installation to allow adjustment to the proposed water schedule.

Recommend MC provide deep watering scheduling on all stations during first 3-years of establishment at once a month during growing season (March thru October.)

MC shall review most sensitive plant material for signs of duress and adjust controller watering as necessary to maintain plant material per town of Oro Valley code.

RAINWATER HARVESTING LEGEND

- landscape grading - water catchment depressed landscape area, refer to details
- flow direction
- watershed designator

reference numbers:

2302577, 2101733, 2101748, 2100814, OV1206-16A, IP1912-06, G1300016, G1400034, G1500014, G1702595

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RAINWATER  
HARVESTING PLAN

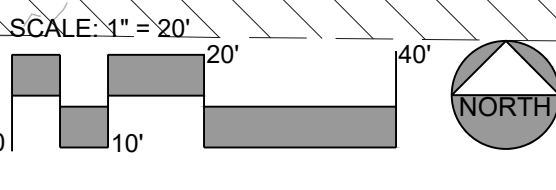
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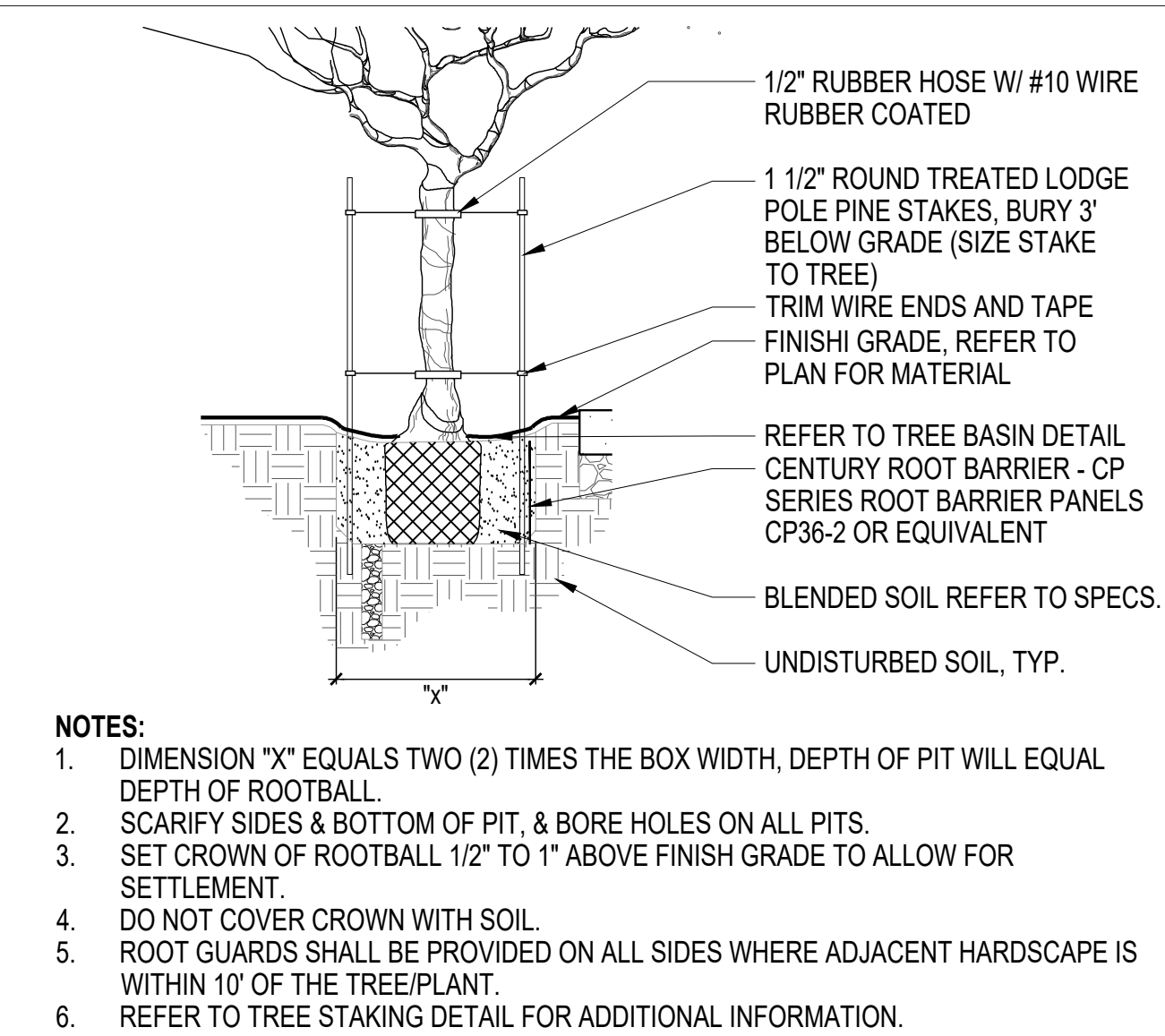
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W. NARANJA DRIVE (PUBLIC)  
BK. 8, PG. 89, ROAD MAPS

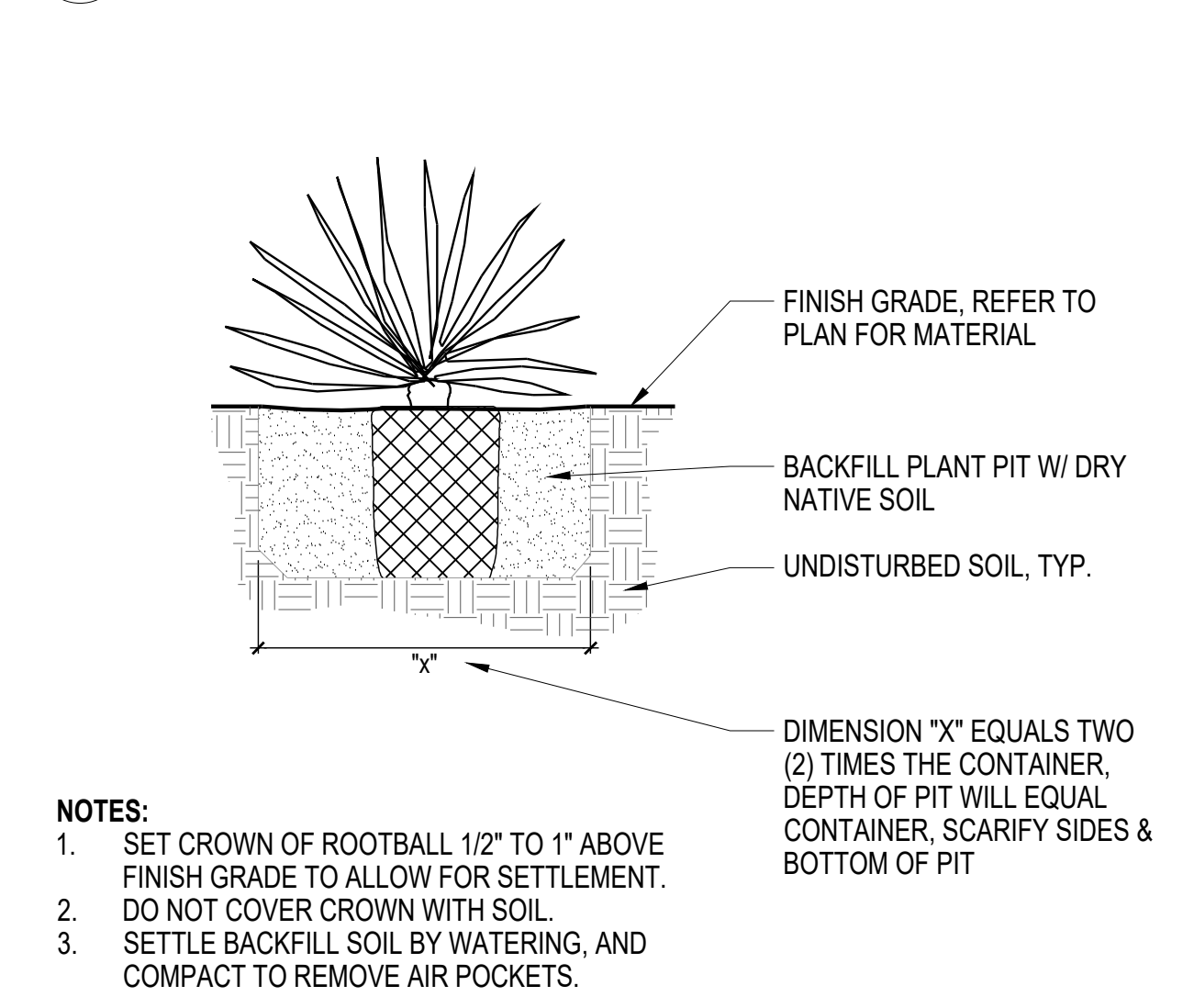


Refer to specifications for  
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performances, and products.

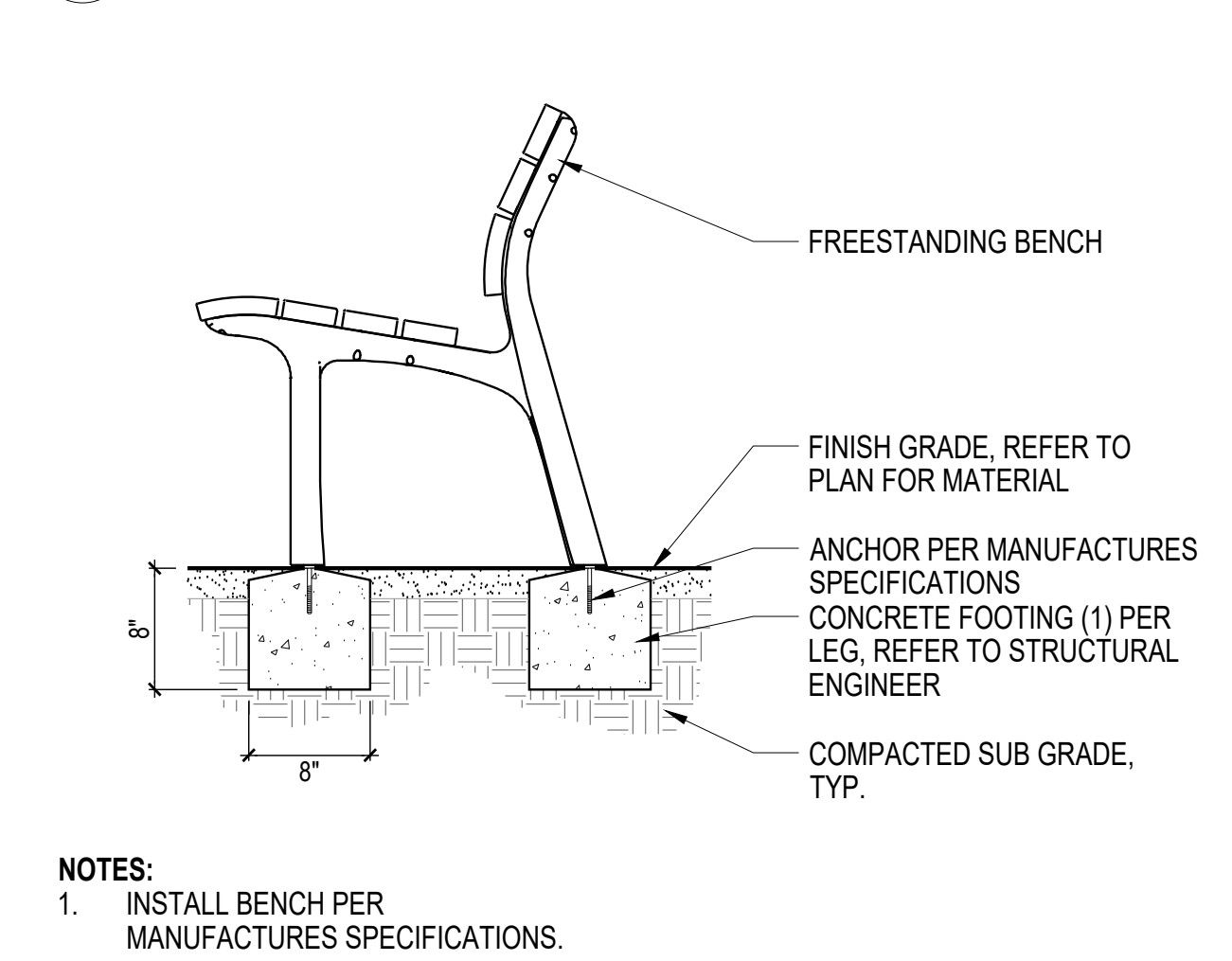




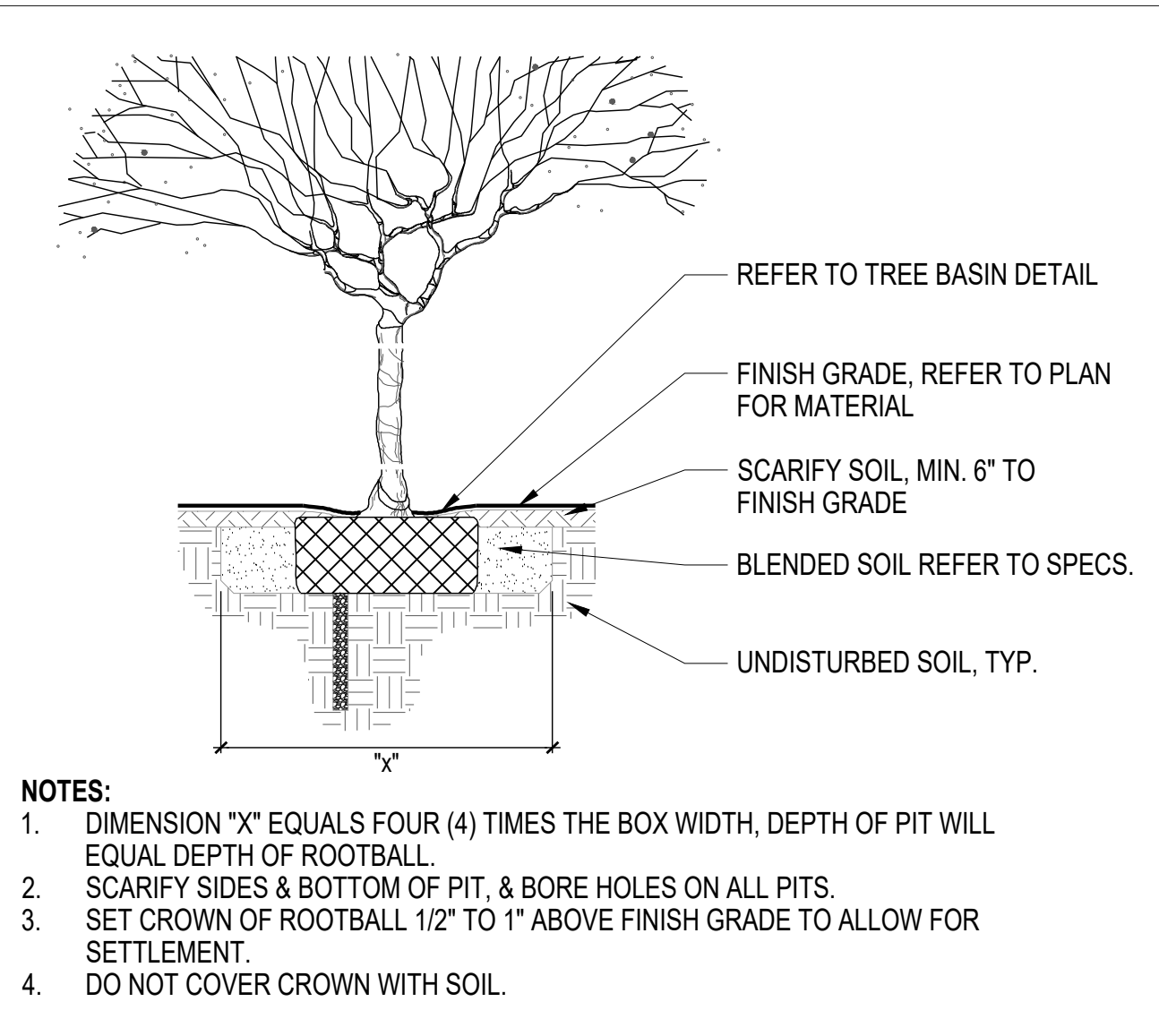
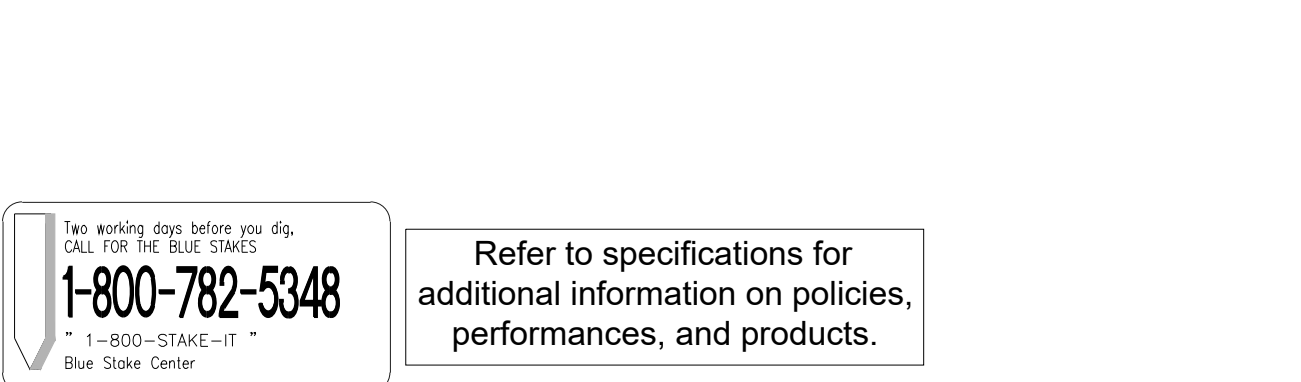
1 15 GALLON & 24IN BOX - TREE PLANTING NTS



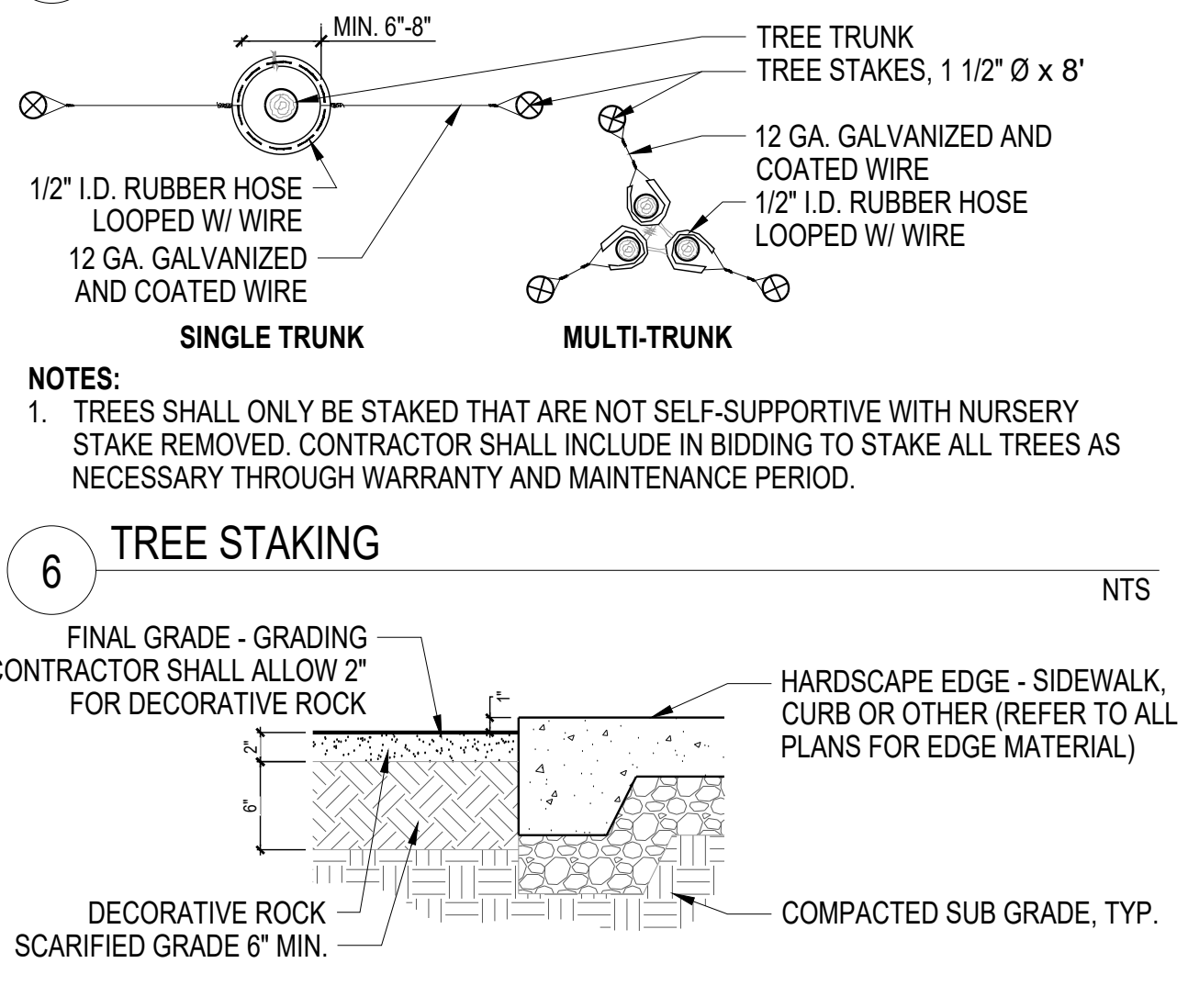
5 ACCENT PLANTING NTS



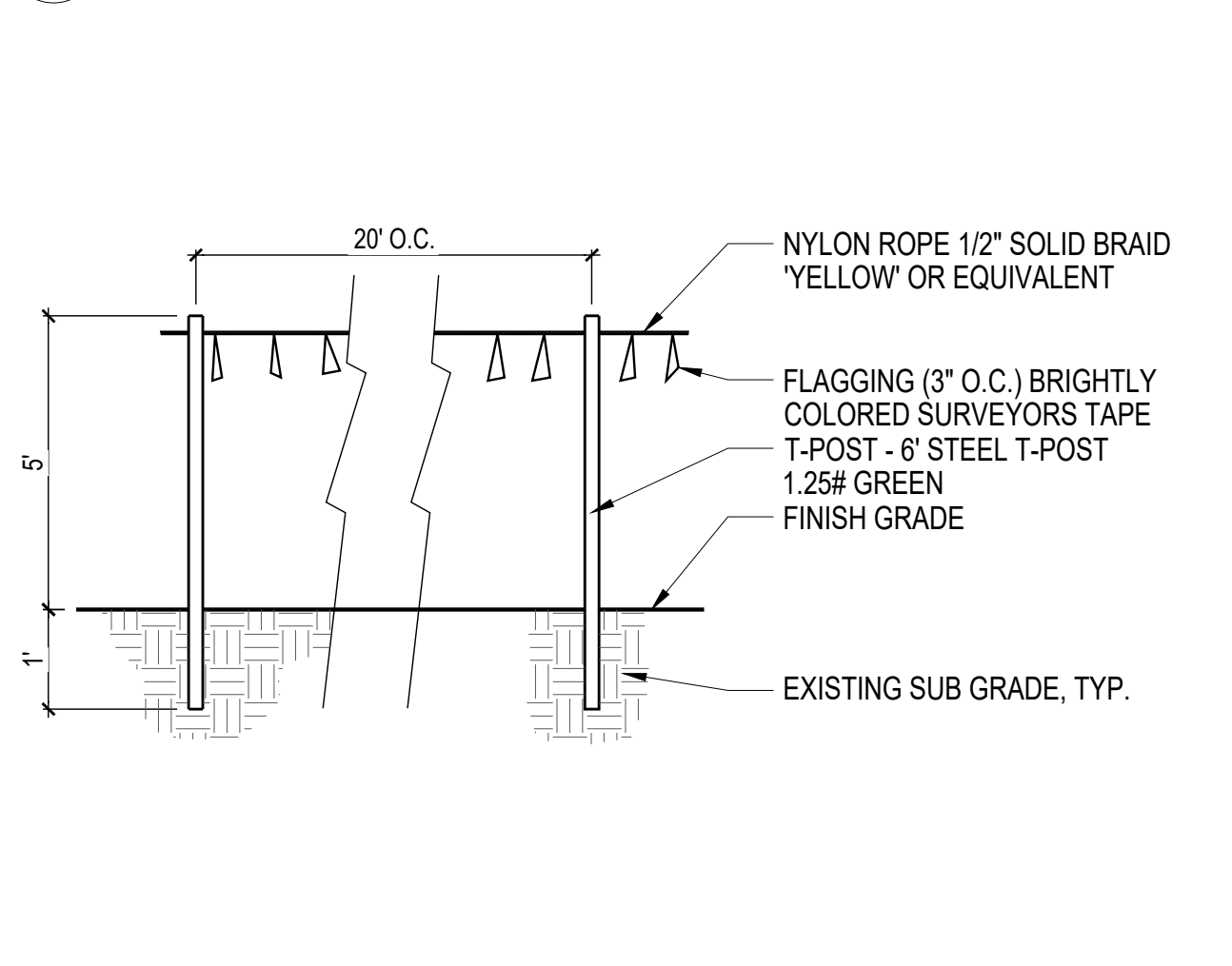
10 FREESTANDING BENCH NTS



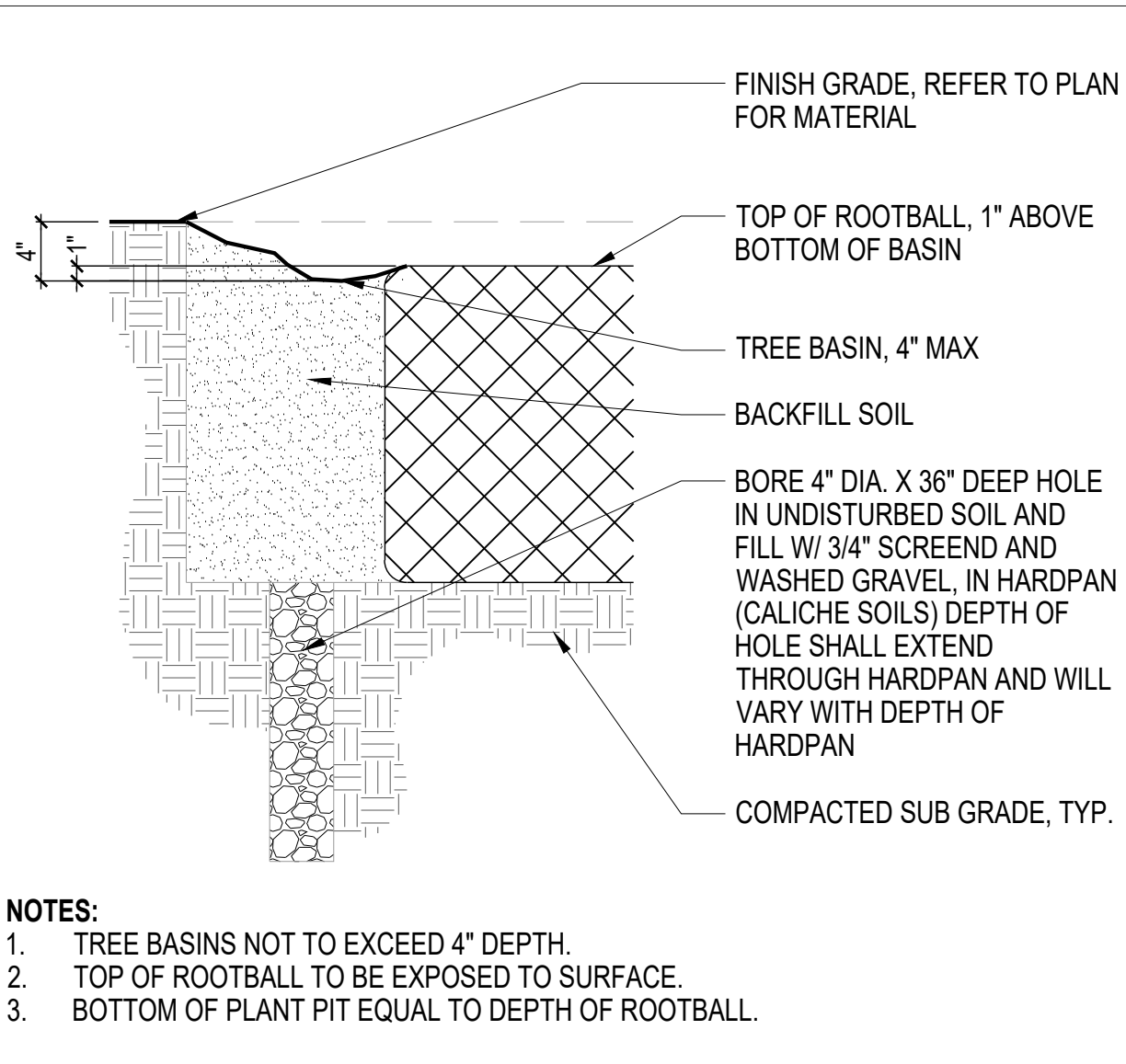
2 36IN BOX OR LARGER - TREE PLANTING NTS



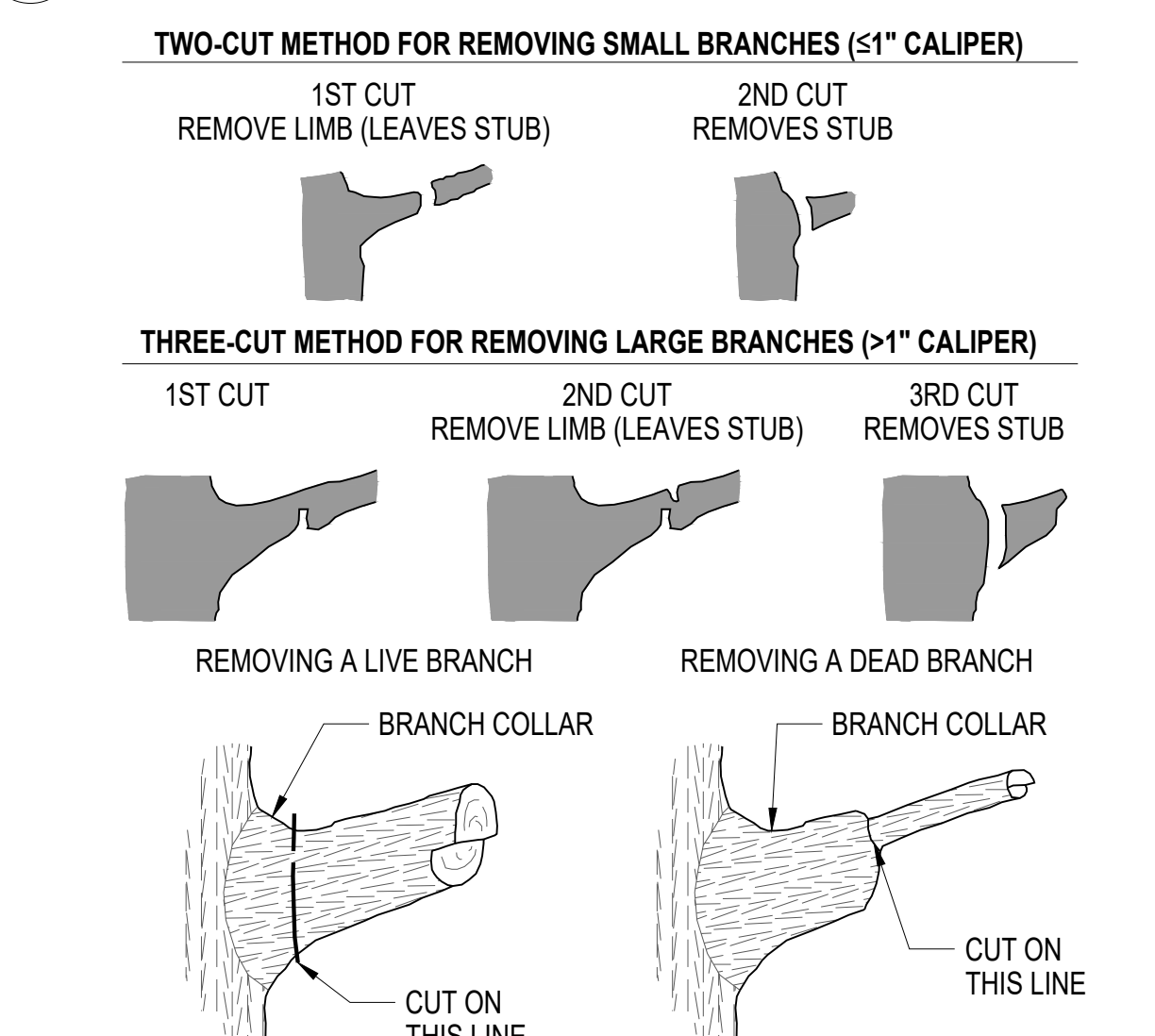
7 FINAL GRADE HARDSCAPE TO DEC. ROCK NTS



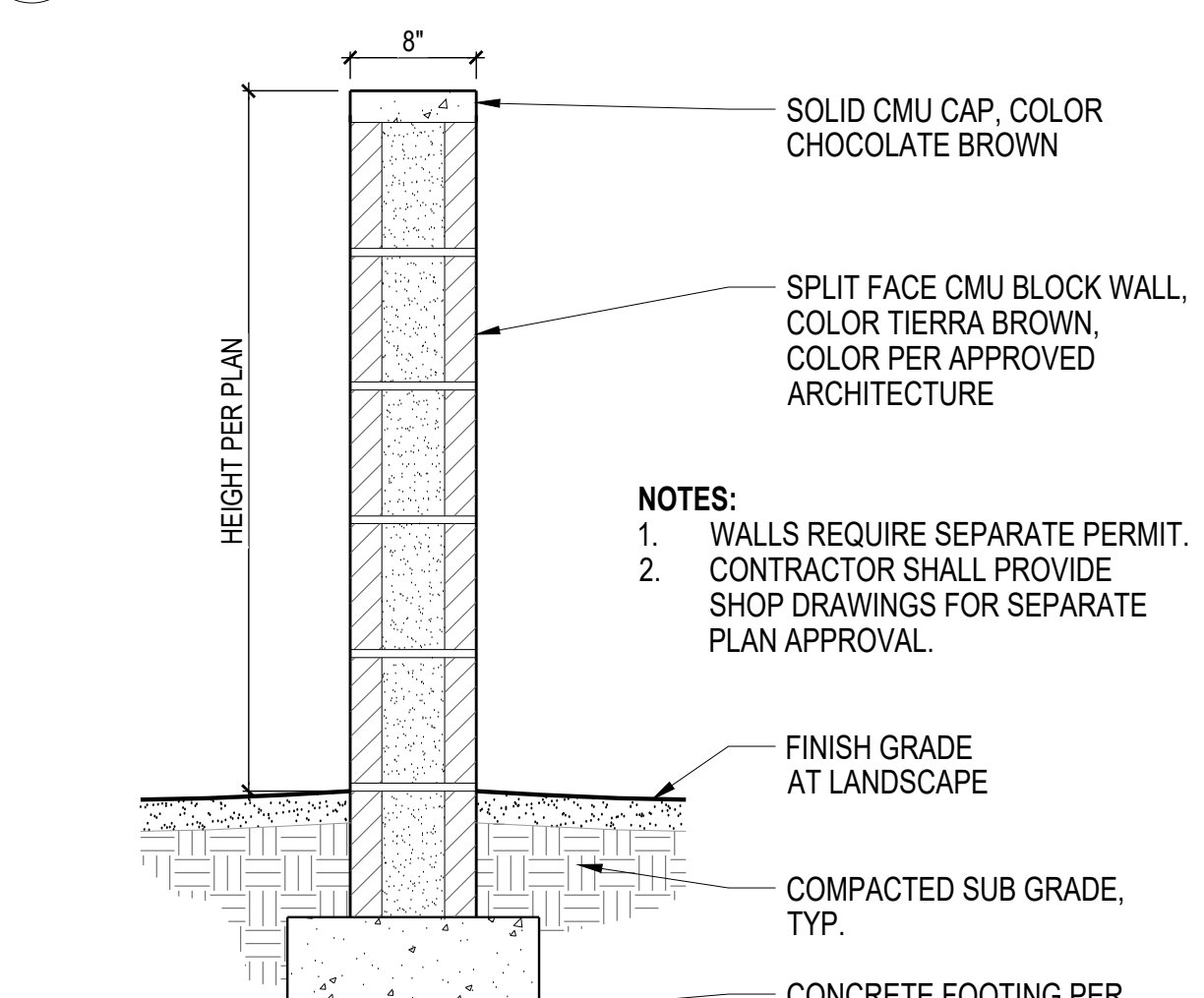
11 VEGETATION PRESERVATION FENCE NTS



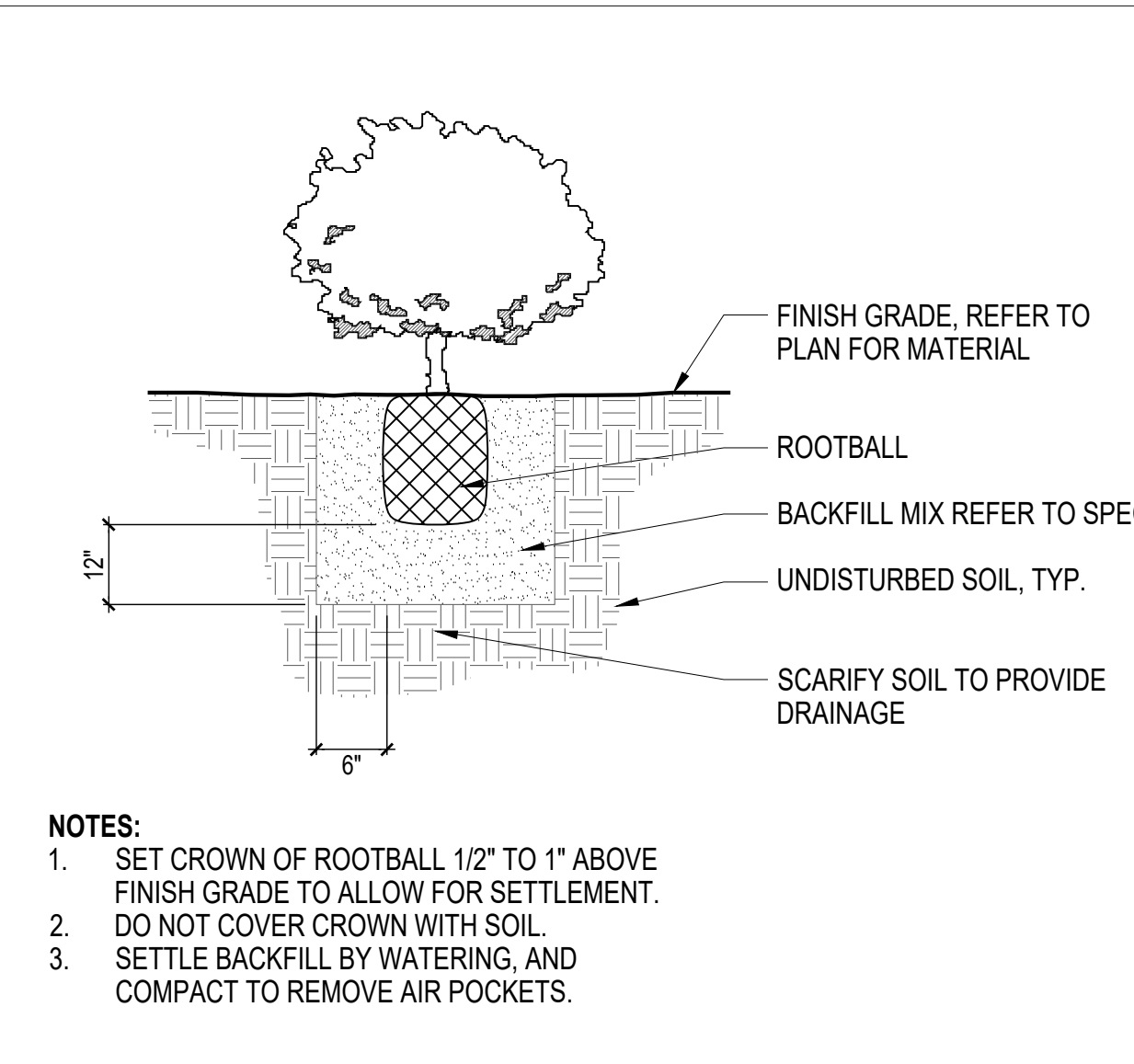
3 TREE BASIN NTS



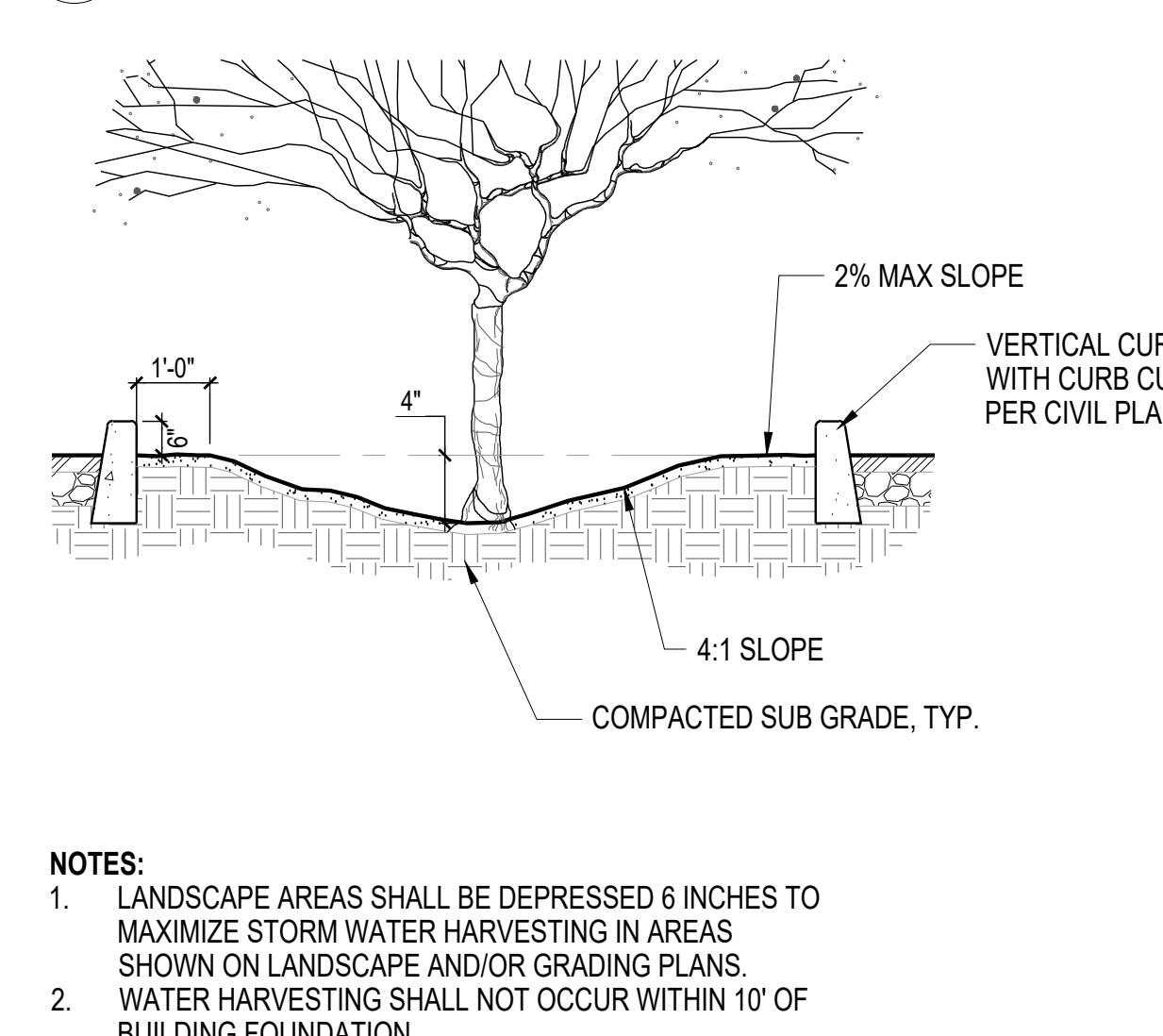
8 TREE PRUNING NTS



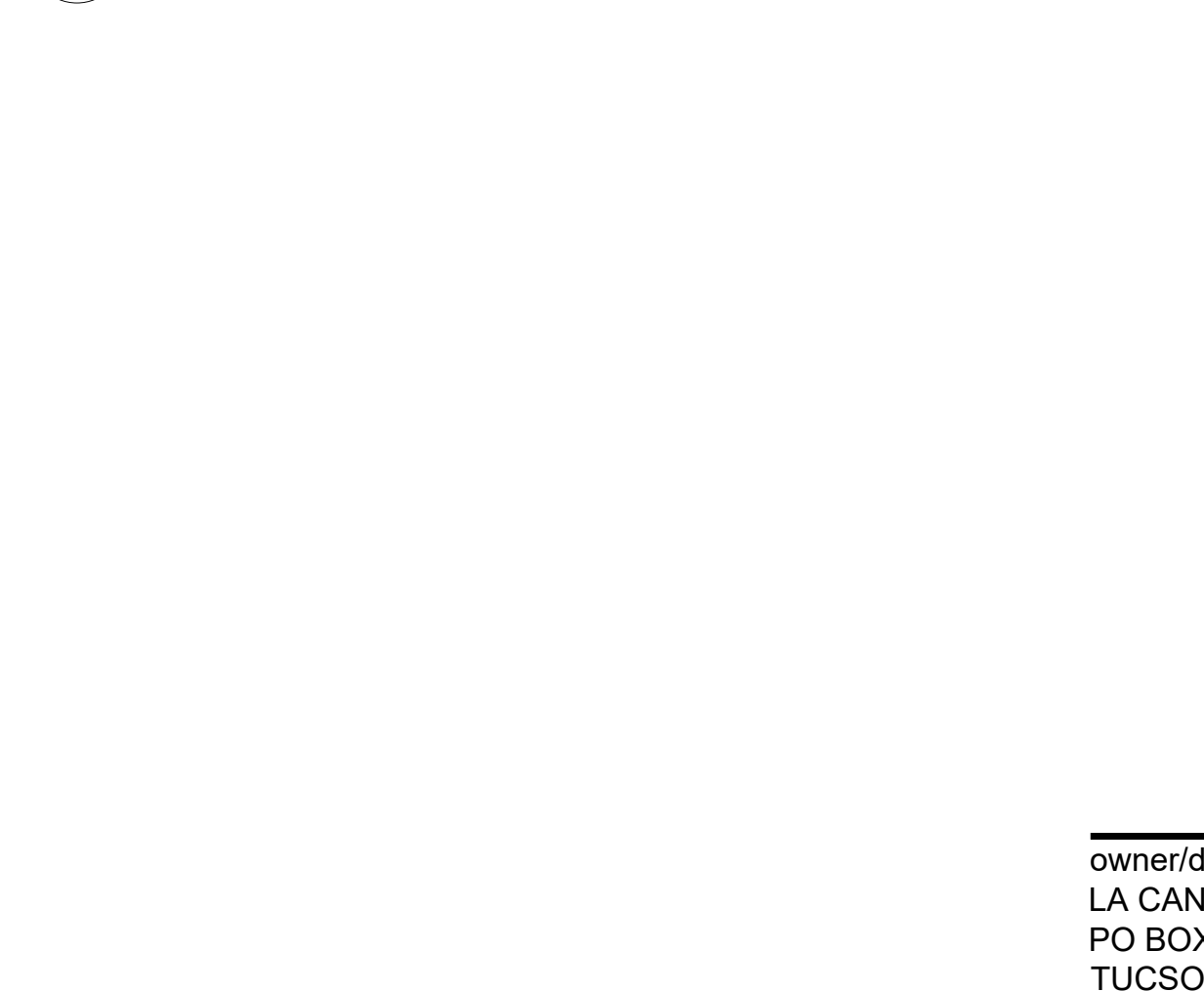
12 MASONRY SCREEN WALL NTS



4 SHRUB PLANTING NTS



9 LANDSCAPE GRADING / RAINWATER HARVESTING NTS



12 MASONRY SCREEN WALL NTS



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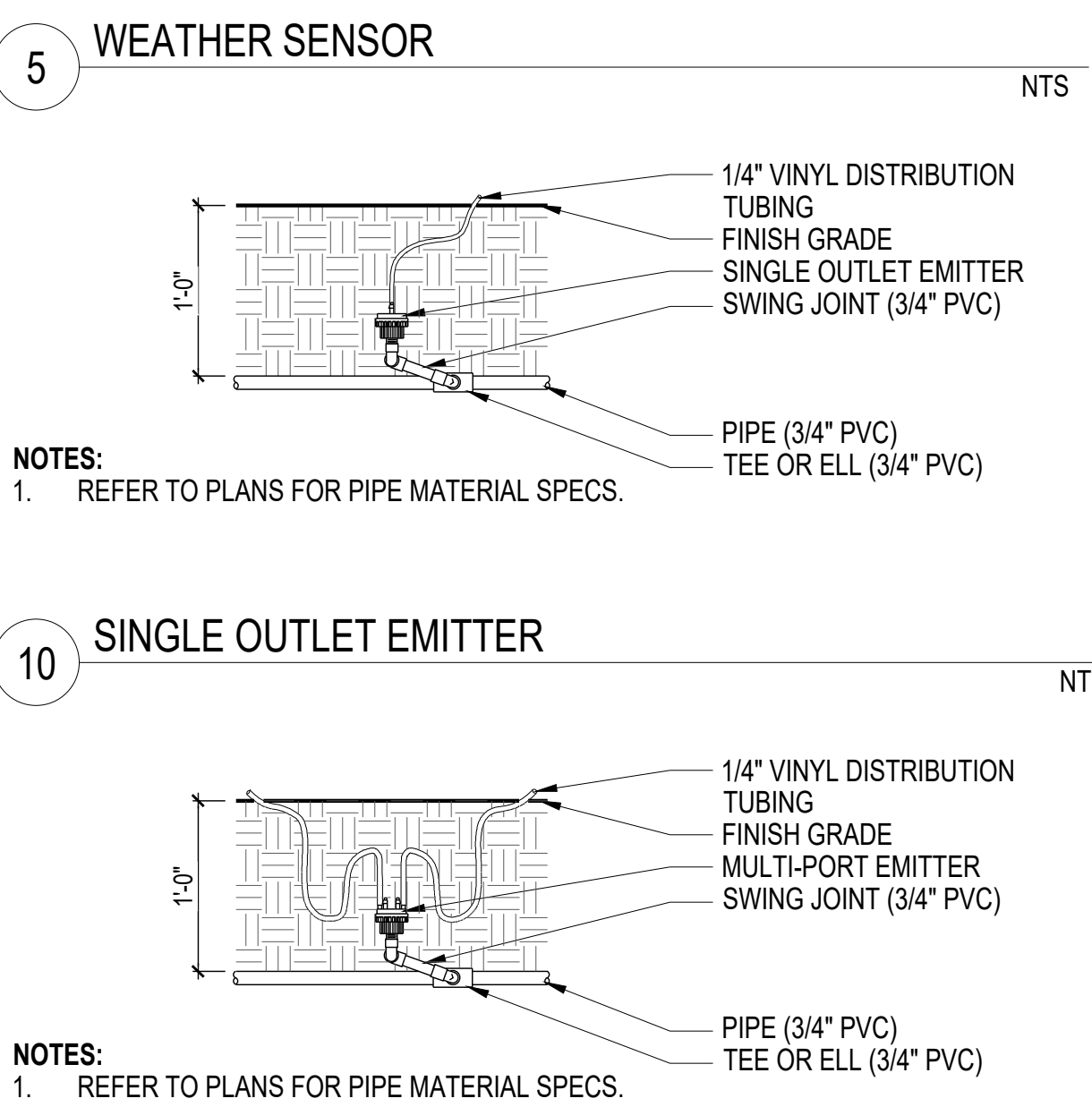
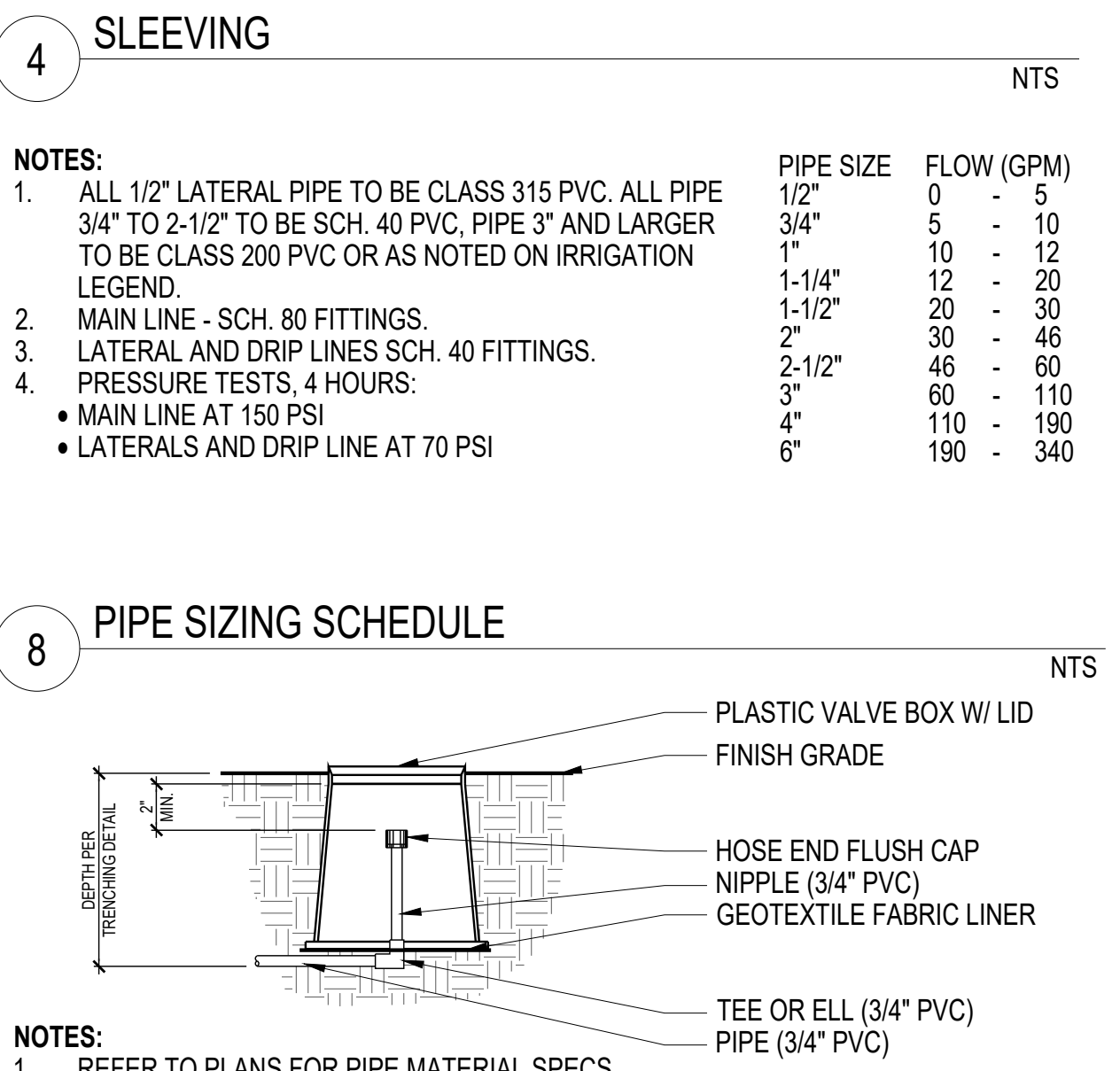
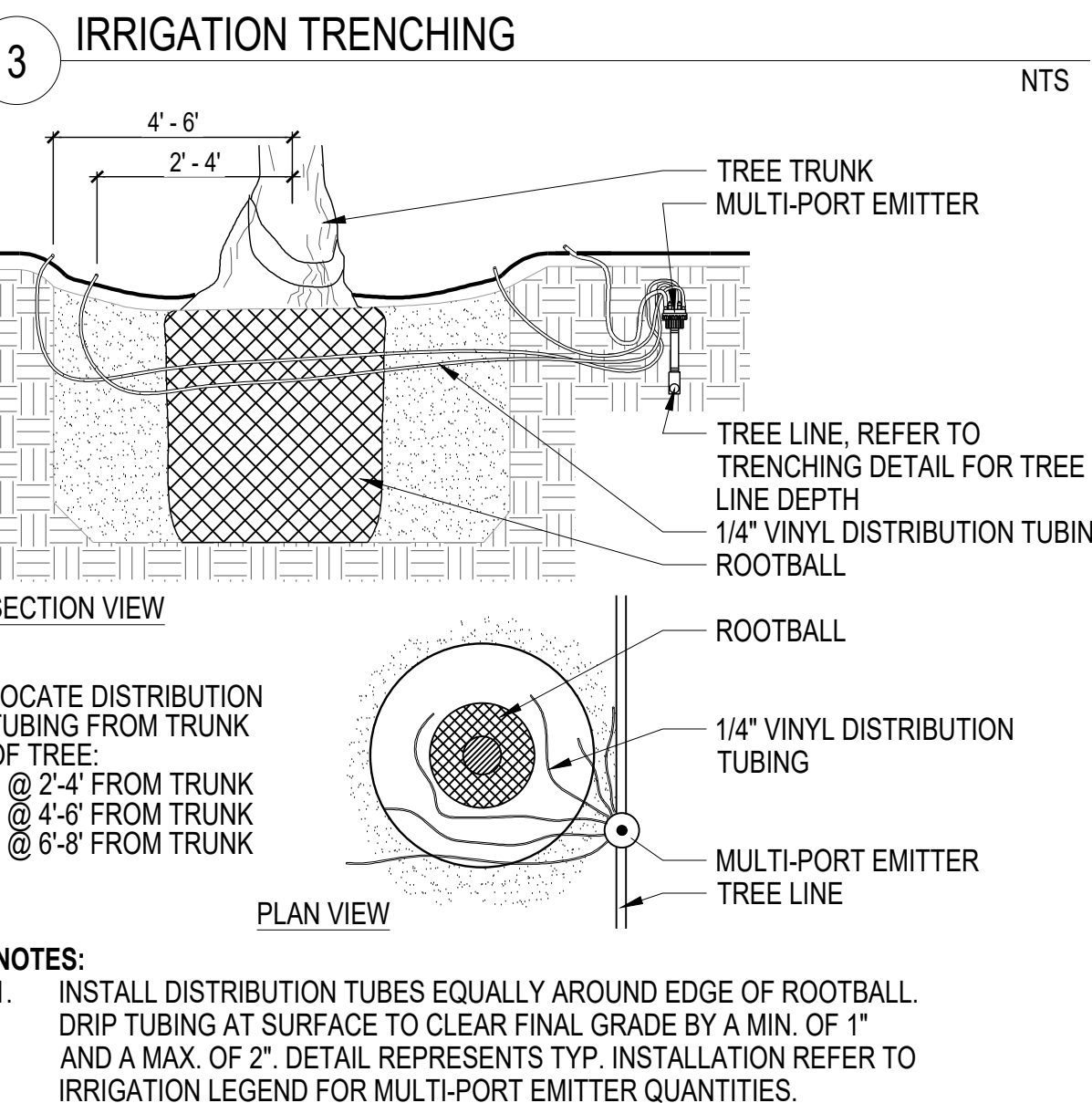
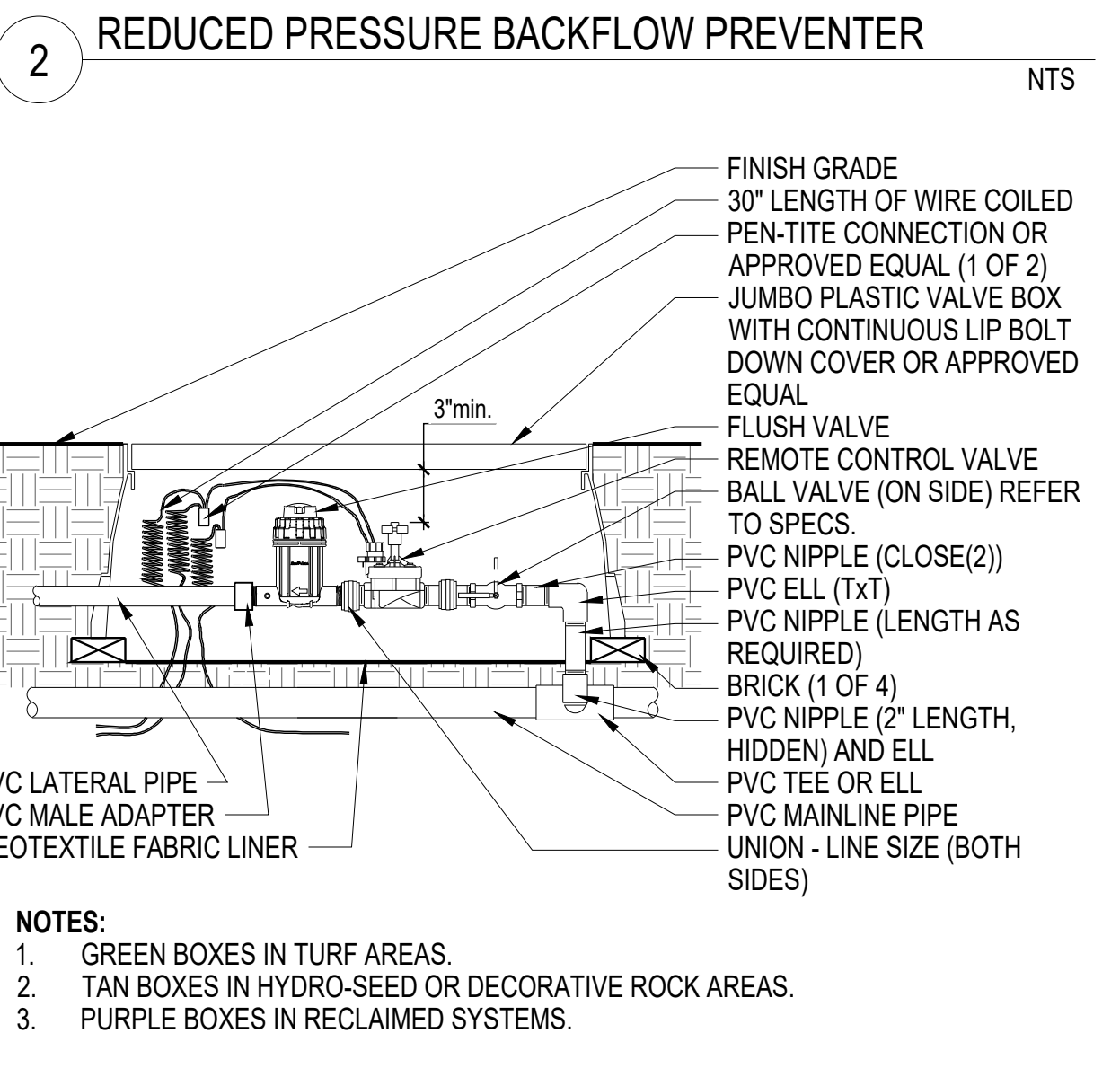
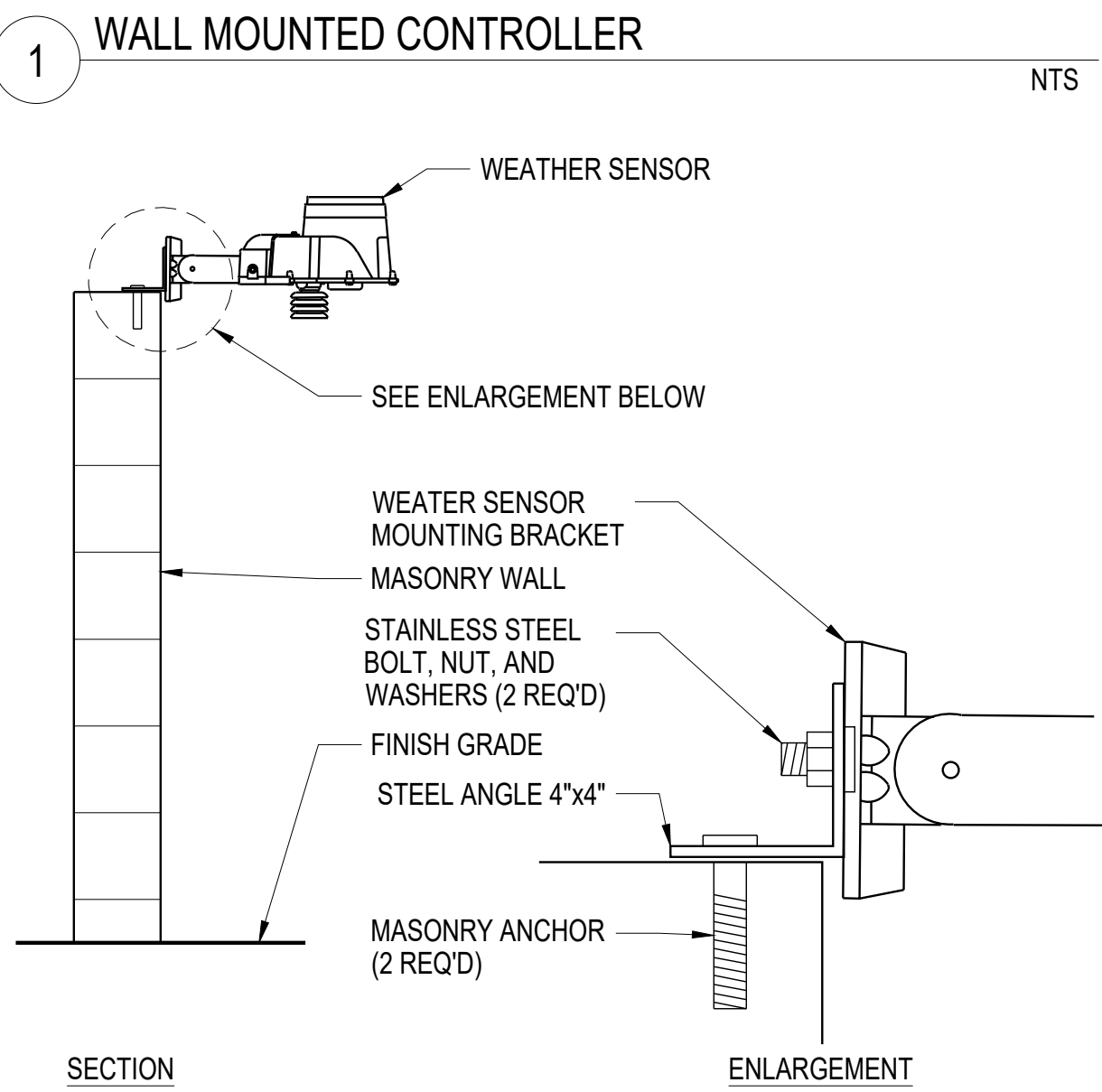
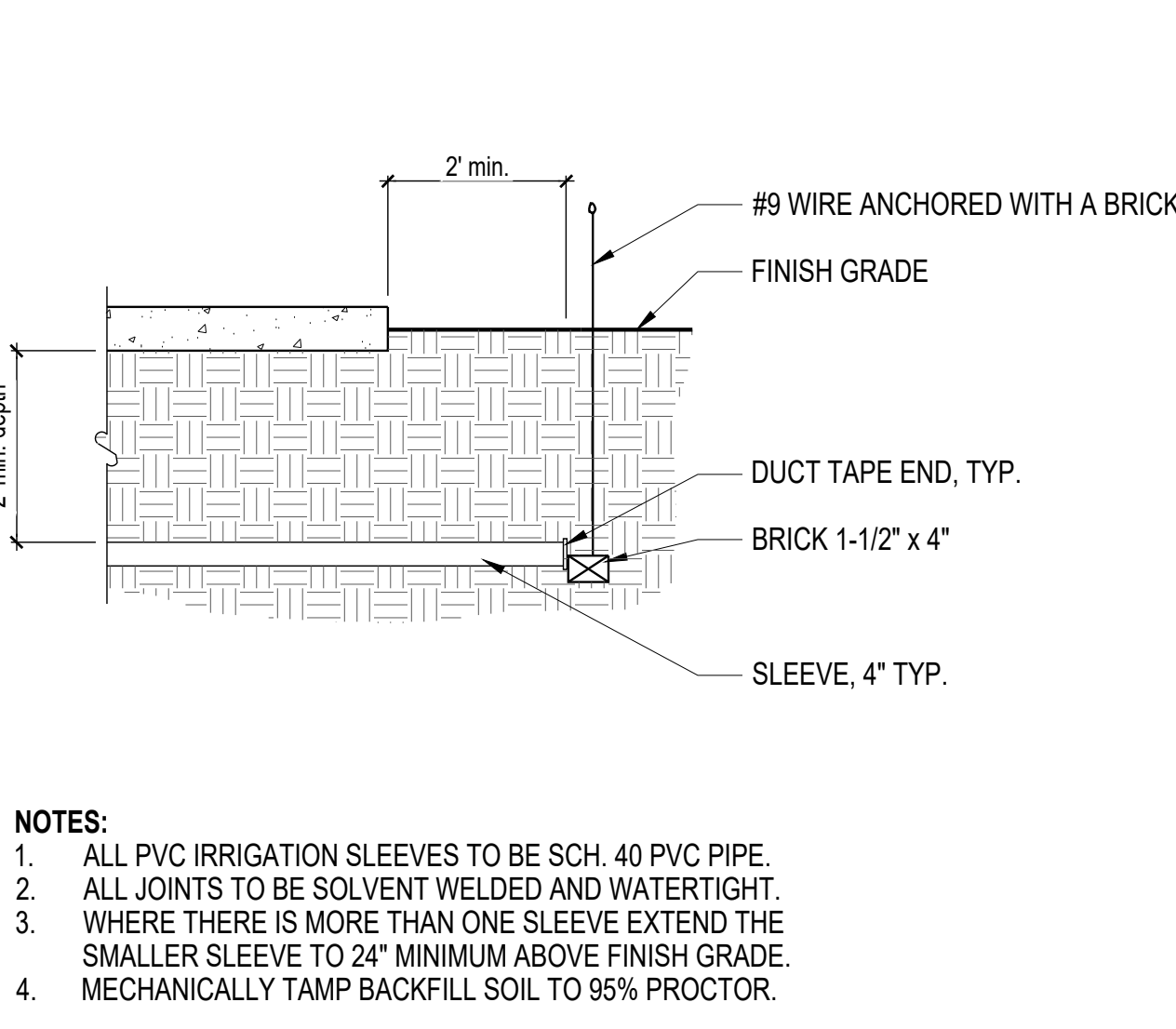
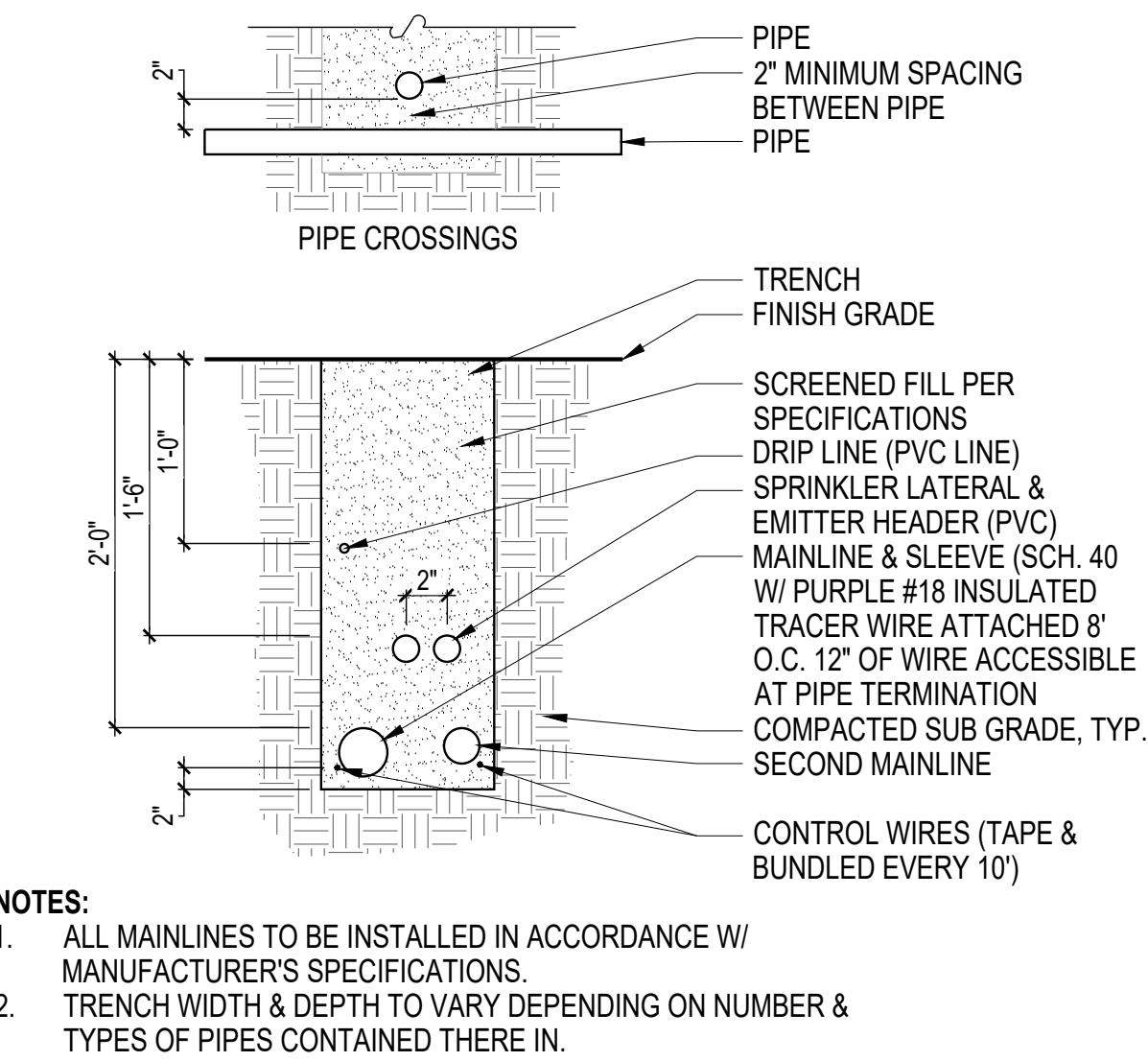
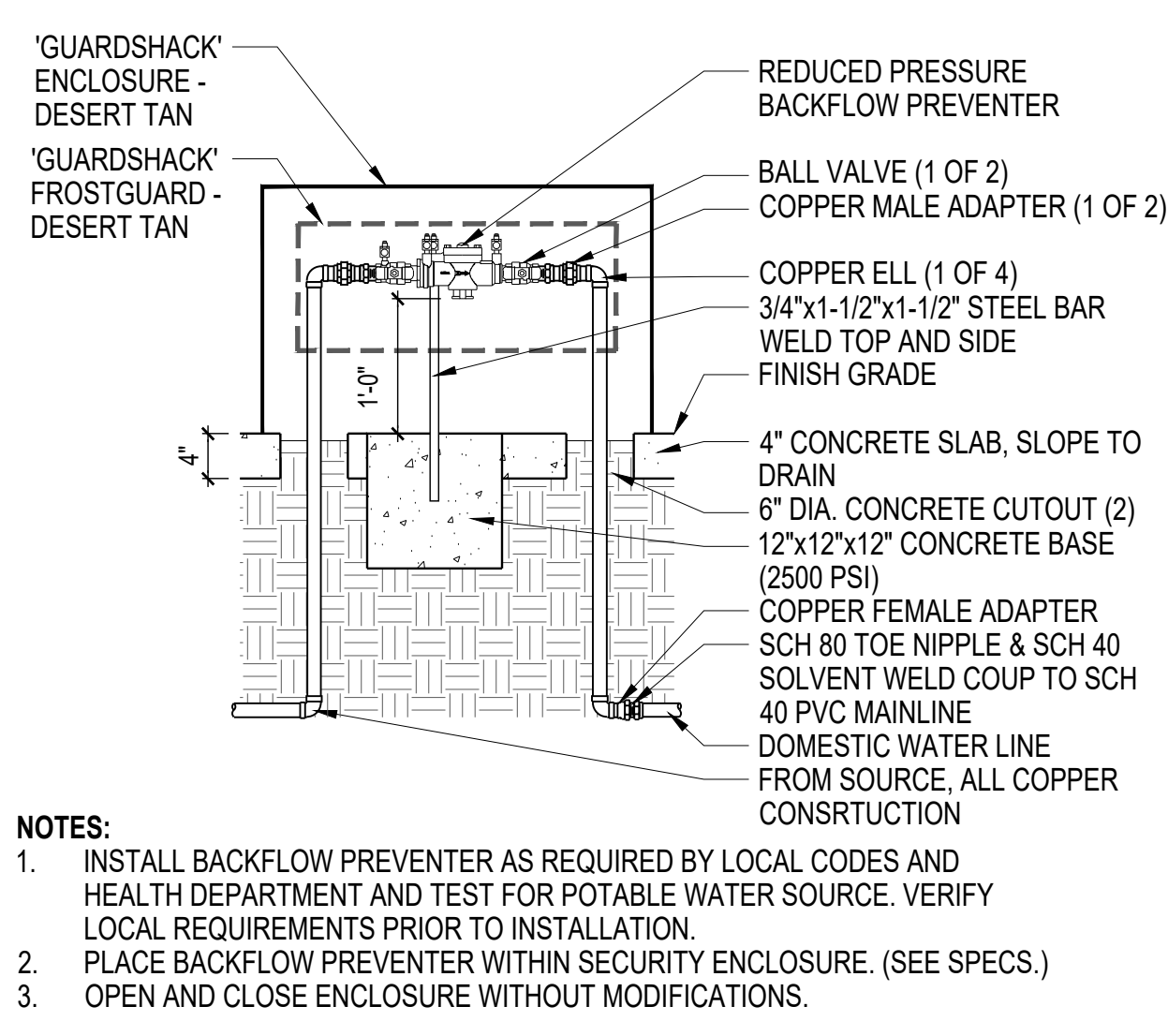
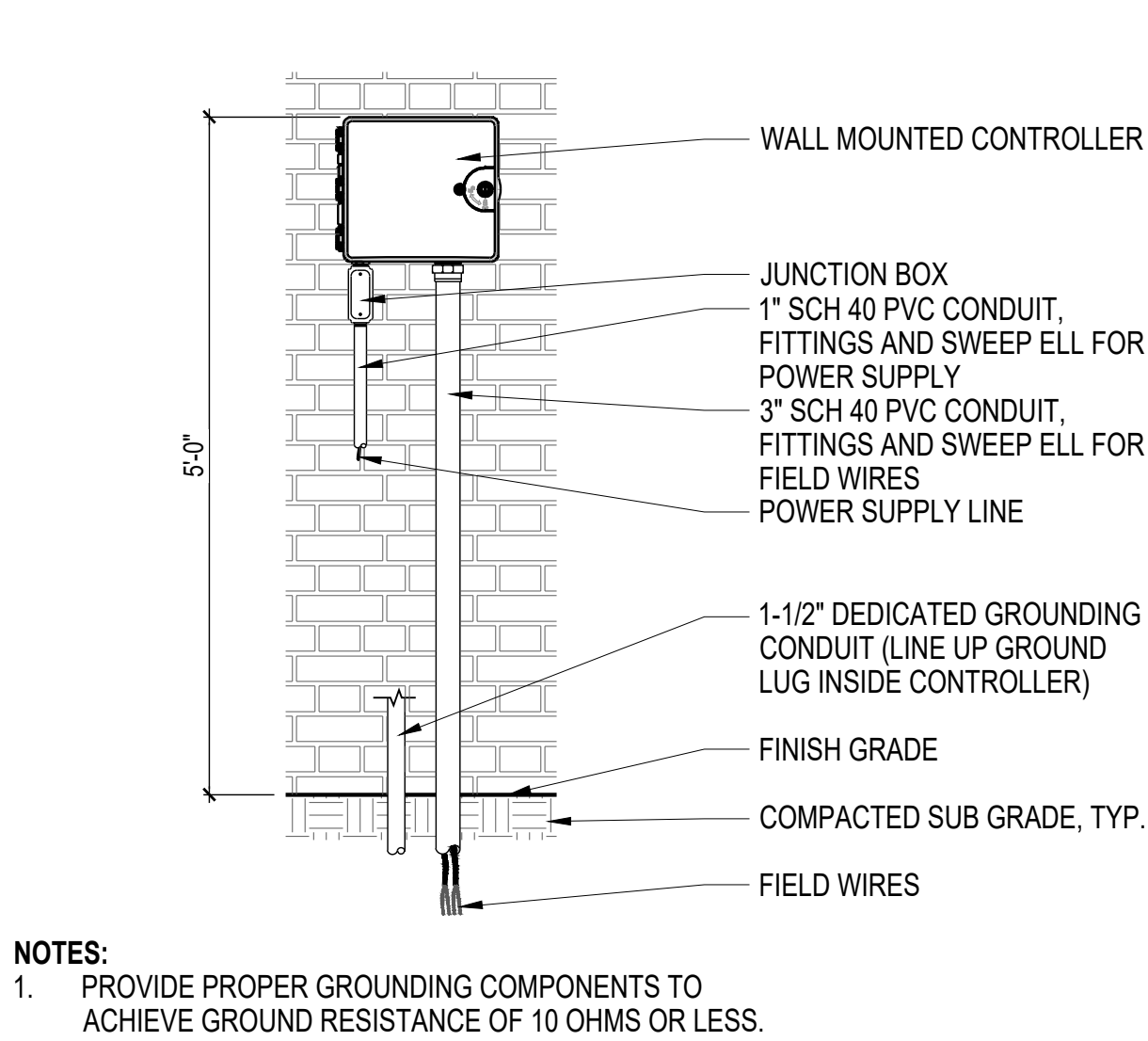
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