

UNDERGROUND SERVICE ALERT



Know what's below.  
Call before you dig.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

SPECIAL NOTE:

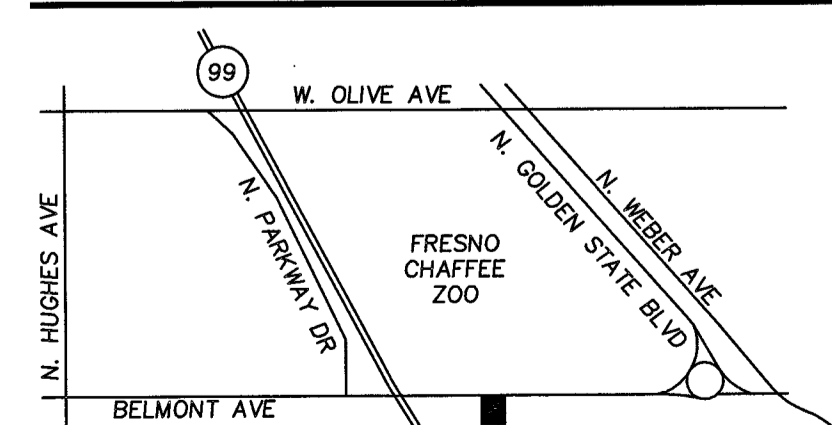
WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS, DEPTH AND DIMENSIONS OF STRUCTURES ARE BELIEVED TO BE REASONABLY CORRECT, BUT ARE NOT GUARANTEED. SUCH STRUCTURES ARE SHOWN FOR THE INFORMATION OF THE CONTRACTOR, BUT INFORMATION SO GIVEN IS NOT TO BE CONSTRUED AS A REPRESENTATION THAT SUCH STRUCTURES WILL, IN ALL CASES, BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL OF THE STRUCTURES WHICH MAY BE ENCOUNTERED.

CONTRACTOR SHALL NOTIFY "USA" (UNDERGROUND SERVICE ALERT) AT 811, TWO WORKING DAYS BEFORE COMMENCING EXCAVATION AND ALL UTILITY AUTHORITIES OR UTILITY COMPANIES HAVING POSSIBLE INTEREST IN THE WORK, OF CONTRACTOR'S INTENTION TO EXCAVATE PROXIMATE TO EXISTING FACILITIES, AND CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UTILITIES WITHIN THE WORK AREA.

LEGEND:

---	EXISTING SECTION LINE	AP	ANGLE POINT
---	EXISTING CENTER LINE	BLDG	BUILDING
---	EXISTING PROPERTY LINE	C	CONCRETE
---	EXISTING RIGHT-OF-WAY LINE	CATV	CABLE TELEVISION
---	EXISTING CURB & GUTTER	CL	CENTER LINE
---	PROPOSED CURB & GUTTER	ELB	ELECTRIC BOX
---	EXISTING EDGE OF PAVEMENT	EP	EDGE OF PAVEMENT
---	EXISTING WATER LINE	FD	FINISH DIRT
---	PROPOSED WATER LINE	FF	FINISH FLOOR
---	EXISTING STORM DRAIN LINE	FH	FIRE HYDRANT
---	PROPOSED STORM DRAIN LINE	FL	FLOWLINE
---	EXISTING SEWER LINE	FNC	FENCE
---	PROPOSED SEWER LINE	GB	GRADE BREAK
---	SAWCUT LINE	GW	GUY WIRE
---	EXISTING WATER VALVE	LIP	LIP OF GUTTER
---	PROPOSED WATER VALVE	OG	ORIGINAL GROUND
---	EXISTING FIRE HYDRANT	P	PAVEMENT
---	PROPOSED FIRE HYDRANT	PL	PROPERTY LINE
---	EXISTING WATER METER	PP	POWER POLE
---	EXISTING SANITARY SEWER MANHOLE	R/W	RIGHT-OF-WAY LINE
---	PROPOSED SANITARY SEWER MANHOLE	S	SLOPE
---	EXISTING STORM DRAIN MANHOLE	SDMH	STORM DRAIN MANHOLE
---	EXISTING STORM DRAIN INLET	SL	SECTION LINE
---	EXISTING STREET LIGHT	SSMH	SANITARY SEWER MANHOLE
---	PROPOSED STREET LIGHT	SW	SIDEWALK
---	EXISTING UTILITY POLE	TC	TOP OF CURB
---	EXISTING TRANSFORMER POLE	TELB	TELEPHONE BOX
---	EXISTING POWER POLE	TELR	TELEPHONE RISER
---	EXISTING ANCHOR POLE	TOE	TOE OF SLOPE
---	EXISTING TREE	TOP	TOP OF SLOPE
---	EXISTING HANDICAP RAMP	TP	TELEPHONE POLE
---	EXISTING DRIVE APPROACH	WM	WATER METER
---	EXISTING CONCRETE	WV	WATER VALVE
---	PROPOSED CONCRETE	(218.00)	EXISTING GRADE
---		220.00	PROPOSED GRADE
---			PROPOSED FIRE CURB

VICINITY MAP:



PROJECT SITE

SHEET INDEX:

- 1 - COVER SHEET
- 2 - DEMOLITION PLAN
- 3 - GRADING PLAN
- 4 - DETAILS
- 5 - EROSION CONTROL PLAN
- 6 - BELMONT FRONTAGE PLAN (ADDITIVE ALTERNATE)
- 7 - BELMONT FRONTAGE IRRIGATION PLAN (ADDITIVE ALTERNATE)
- 8 - BELMONT FRONTAGE IRRIGATION DETAILS (ADDITIVE ALTERNATE)

BENCHMARK:

FRESNO CITY BM 2818  
CHISELED SQUARE ON CURB, EAST RETURN, SOUTHWEST CORNER TELMAN AND BELMONT  
ELEVATION = 288.362 FEET

PREPARED BY:

YAMABE & HORN ENG.  
2885 NORTH BURL AVE. SUITE 101  
FRESNO, CA 93727  
PH. (559) 244-3123  
FAX. (559) 224-3120

PREPARED FOR:

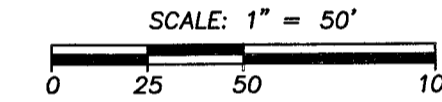
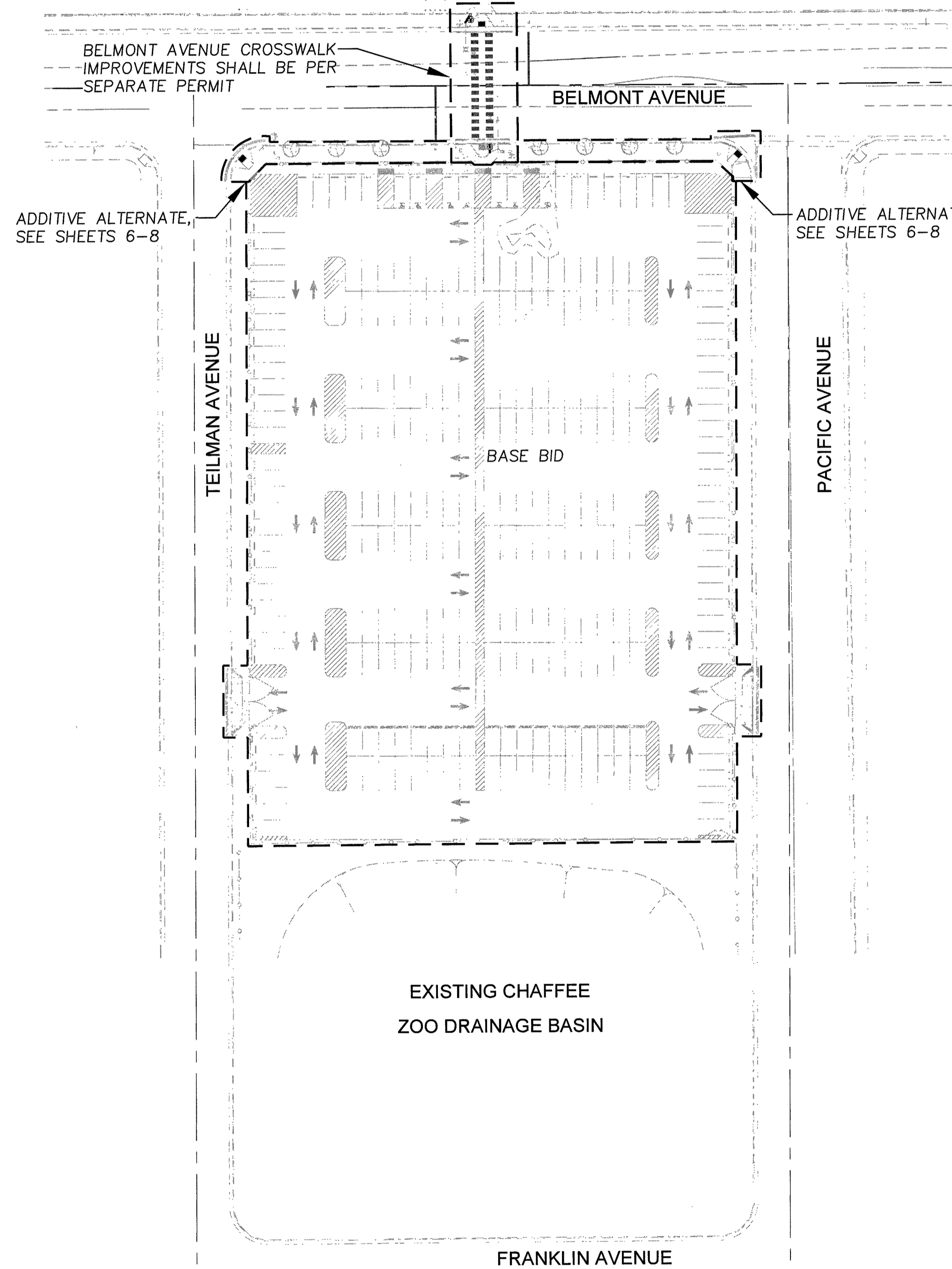
FRESNO CHAFFEE ZOO  
894 WEST BELMONT AVENUE  
FRESNO, CALIFORNIA 93728  
PH. (559) 498-5957

# CITY OF FRESNO

## PLANS FOR

### FRESNO CHAFFEE ZOO

### TEMPORARY PARKING LOT



CITY OF FRESNO  
DEVELOPMENT DEPARTMENT  
BACK CHECK  
DATE 5-4-18  
STRUCTURAL \_\_\_\_\_  
BUILDING \_\_\_\_\_  
MECHANICAL \_\_\_\_\_  
ELECTRICAL \_\_\_\_\_  
PLUMBING \_\_\_\_\_  
PROJECT DEVEL \_\_\_\_\_  
GRADING \_\_\_\_\_  
PLANNING/ZONING \_\_\_\_\_

GRADING NOTES:

1. CONTRACTOR SHALL OBTAIN A GRADING PERMIT AND PAY THE PLAN CHECK FEE FROM THE CITY OF FRESNO BUILDING DIVISION PRIOR TO ANY GRADING.
2. ALL CONSTRUCTION SHALL BE PERFORMED IN CONFORMANCE WITH THE CITY OF FRESNO STANDARD SPECIFICATIONS AND THE APPLICABLE PORTIONS OF THE CALIFORNIA BUILDING CODE 2016 (CBC 2016)
3. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR DUST CONTROL FOR THE DURATION OF THE WORK. DUST CONTROL MEASURES SHALL BE FULLY AND ADEQUATELY CARRIED OUT ON WEEKDAYS, WEEKENDS AND HOLIDAYS, AND WHEN NECESSARY, BEFORE OR AFTER NORMAL WORKING HOURS.
4. ALL SIDEWALKS SHALL MAINTAIN A MAXIMUM SLOPE OF 5% IN THE DIRECTION OF TRAVEL AND A MAXIMUM CROSS SLOPE OF 2% TO ADHERE TO ADA REQUIREMENTS.
5. THE GROUND IMMEDIATELY ADJACENT TO ALL FOUNDATIONS SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN 2% FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL. IF PHYSICAL OBSTRUCTIONS OR LOT LINES PROHIBIT 10 FEET OF HORIZONTAL DISTANCE FROM THE FOUNDATION, THEN A SWALE THAT RUNS PARALLEL TO THE FOUNDATION MAY BE USED AND WILL BE REQUIRED TO BE A MINIMUM SLOPE 2% WITHIN 10 FEET OF THE BUILDING FOUNDATION. ALL OTHER SITE GRADING OUTSIDE OF THE BUILDING ENVELOPE IS REQUIRED TO BE A MINIMUM OF 0.5% IN ADDITION, THE CITY OF FRESNO PERMITS CONCRETE CHANNELS WITH 0.2% MIN. SLOPE WITHIN 10' OF THE BUILDING ENVELOPE AS AN ALTERNATIVE TO THE 2% MIN. SLOPE REQUIREMENT WHEN LOT LINES OR PHYSICAL OBSTRUCTIONS EXIST.
6. THE SITE SHALL HAVE AN OVERALL MINIMUM SLOPE OF 0.5% TO AN APPROVED DRAINAGE FACILITY.
7. NO PERMANENT ON-SITE WATER RETENTION IS ALLOWED.
8. NO SURFACE DRAINAGE SHALL BE PERMITTED ONTO ADJACENT PROPERTIES.
9. ANY SURVEY MONUMENTS WITHIN THE AREA OF WORK SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA.
10. GRADING NEXT TO ADJACENT PROPERTIES, WHERE DIFFERENCES EXCEED ONE (1) FOOT IN ELEVATION, SHALL CONFORM TO CITY STANDARD OR A RECORDED SLOPE EASEMENT FROM ADJOINING PROPERTY OWNERS AFFECTED SHALL BE PROVIDED. DIFFERENCES IN ELEVATION LESS THAN ONE (1) FOOT SHALL REQUIRE, AT A MINIMUM, A RETAINING BOARD (1"x12") MADE OF REDWOOD OR APPROVED EQUAL, TO BE USED TO RETAIN ALL SOIL ON THE PROPERTY BEING DEVELOPED OR ADJACENT TO THE DEVELOPMENT DEPENDING ON WHICH PROPERTY HAS HIGHER GRADES.
11. ANY RETAINING WALL AND/OR FENCE CONSTRUCTED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE OF A MASONRY DESIGN AND CONSTRUCTION. A BUILDING PERMIT WILL BE REQUIRED FOR ANY RETAINING WALL, FENCE, BLOCK WALL OR WOOD FENCE TO BE CONSTRUCTED.
12. THE GRADING CONTRACTOR SHALL REMOVE ALL ORGANIC MATTER, DEBRIS, AND OTHER DELETERIOUS MATERIAL FROM THE SITE.
13. ESTIMATED EARTHWORK QUANTITIES:  
EXCAVATION 1,000 C.Y.  
EMBANKMENT 1,820 C.Y.  
FOR PERMIT PURPOSES ONLY
14. ALL FILL TO BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION, INCLUDING UNDER SIDEWALKS, PAVEMENT AREAS, CURBS AND VALLEY GUTTERS SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION, PER ASTM-D1557-91.
15. PROVIDE COMPACTION REPORTS PREPARED BY AN APPROVED TESTING AGENCY FOR ALL LOOSE FILLS, PAVEMENT SECTIONS, TRENCH BACKFILL, AND RETAINING WALL BACKFILLS.
16. THE OWNER ACKNOWLEDGES THE CITY'S APPROVAL OF THIS GRADING PLAN DOES NOT EXPRESS OR IMPLY THE SITE IS FREE OF CONTAMINANTS OR HAZARDOUS MATERIALS OR THAT THE CITY IS RESPONSIBLE OR LIABLE, IN ANY WAY, FOR THE CLEANUP OF THIS SITE.
17. THE CITY SHALL BE PROVIDED WITH AN "AS-GRADED" PLAN, CERTIFIED BY A REGISTERED ENGINEER PRIOR TO ISSUANCE OF AN OCCUPANCY PERMIT. A "HOLD ON OCCUPANCY" WILL BE IN EFFECT UNTIL SUCH TIME AS THIS DEVELOPMENT IS CERTIFIED "AS GRADED" BY THE ENGINEER OF RECORD.
18. THIS GRADING PLAN IS FOR APPROVAL OF ON-SITE ELEVATIONS ONLY. THE ELEVATIONS SHOWN WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRE SEPARATE PUBLIC WORKS DEPARTMENT APPROVAL & PERMIT. ANY NOTES THAT APPLY TO THE PUBLIC RIGHT-OF-WAY ARE FOR REFERENCE ONLY. IF ON-SITE ELEVATIONS SHOWN DO NOT COINCIDE WITH APPROVED STREET PLANS, AN APPROVED AMENDMENT IS REQUIRED.
19. REPAIR ALL DAMAGED AND/OR OFF-GRADE CONCRETE STREET IMPROVEMENTS AS DETERMINED BY THE CONSTRUCTION MANAGEMENT ENGINEER PRIOR TO OCCUPANCY.
20. GRADING AND FILLING WILL NOT ALTER OR DIVERT EXISTING DRAINAGE PATTERNS ON ADJACENT PROPERTY AND WILL NOT CAUSE DRAINAGE TO OCCUR TOWARD ANY EXISTING BUILDING (S). ALL SITE GRADING SHALL COMPLY WITH THE 2013 CALIFORNIA BUILDING CODE.
21. ALL EXISTING OVERHEAD AND/OR ANY NEW UTILITY FACILITIES LOCATED ONSITE OR WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE UNDERGROUND UNLESS OTHERWISE APPROVED BY THE CIVIL ENGINEER IN WRITING.
22. ANY PERSON, CONTRACTOR OR SUBCONTRACTOR PLANNING TO CONDUCT ANY EXCAVATION SHALL CONTACT USA NORTH AT 811 AT LEAST TWO (2) WORKING DAYS, BUT NO MORE THAN 14 CALENDAR DAYS, PRIOR TO COMMENCING THAT EXCAVATION.
23. ALL EXISTING VALVES (CAP AND LID), MANHOLES, UTILITY VAULTS, ETC., AFFECTED BY THIS WORK SHALL BE ADJUSTED TO FLUSH WITH FINISH GRADE AS NECESSARY.
24. TWO (2) WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA). CALL 1-800-642-2444.

NOTE:

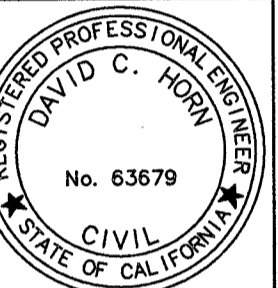
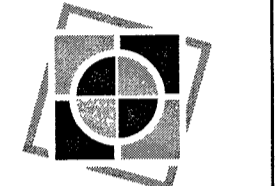
AS-GRADE PLANS, FINAL SOILS REPORT (IF APPLICABLE) AND COMPACTION REPORTS ARE REQUIRED TO BE SUBMITTED AND APPROVED PRIOR TO RECEIVING A "FINAL" A "SAFE-TO-OCCUPY" CAN BE GRANTED BUT WILL REQUIRE A \$15,000.00 CASH DEPOSIT. THE DEPOSIT WILL BE FULLY REFUNDED ONCE THE "AS-GRADE" HAS BEEN APPROVED AND ALL OTHER HOLDS HAVE BEEN CLEARED FOR THE ENTIRE PROJECT. DEPOSITS ARE TYPICALLY REFUNDED FROM THE FINANCE DEPARTMENT IN THE FORM OF A CHECK APPROXIMATELY 1 WEEK AFTER THE REFUND IS REQUESTED. THERE WILL BE A ONE-TIME \$60.00 HANDLING FEE FOR THE "SAFE-TO-OCCUPY" TRANSACTION SHOULD IT BE REQUESTED.

**GRADING**

This original document to be returned to the City of Fresno for all back checks and to obtain grading permit.

Ref. & Rev.

**Yamabe & Horn Engineering, Inc.**  
CIVIL ENGINEERS • LAND SURVEYORS  
2885 N. BURL AVENUE SUITE 101 FRESNO, CA 93727  
TEL (559) 244-3123 WEBSITE YANDHORN.COM



5-4-18

FRESNO CHAFFEE ZOO  
BELMONT ENTRANCE  
COVER SHEET

PROJECT TITLE  
SHEET DESCRIPTION

Dr. By: MG

Ch. By: DH

Date: 3/16/2018

Scale: As Noted

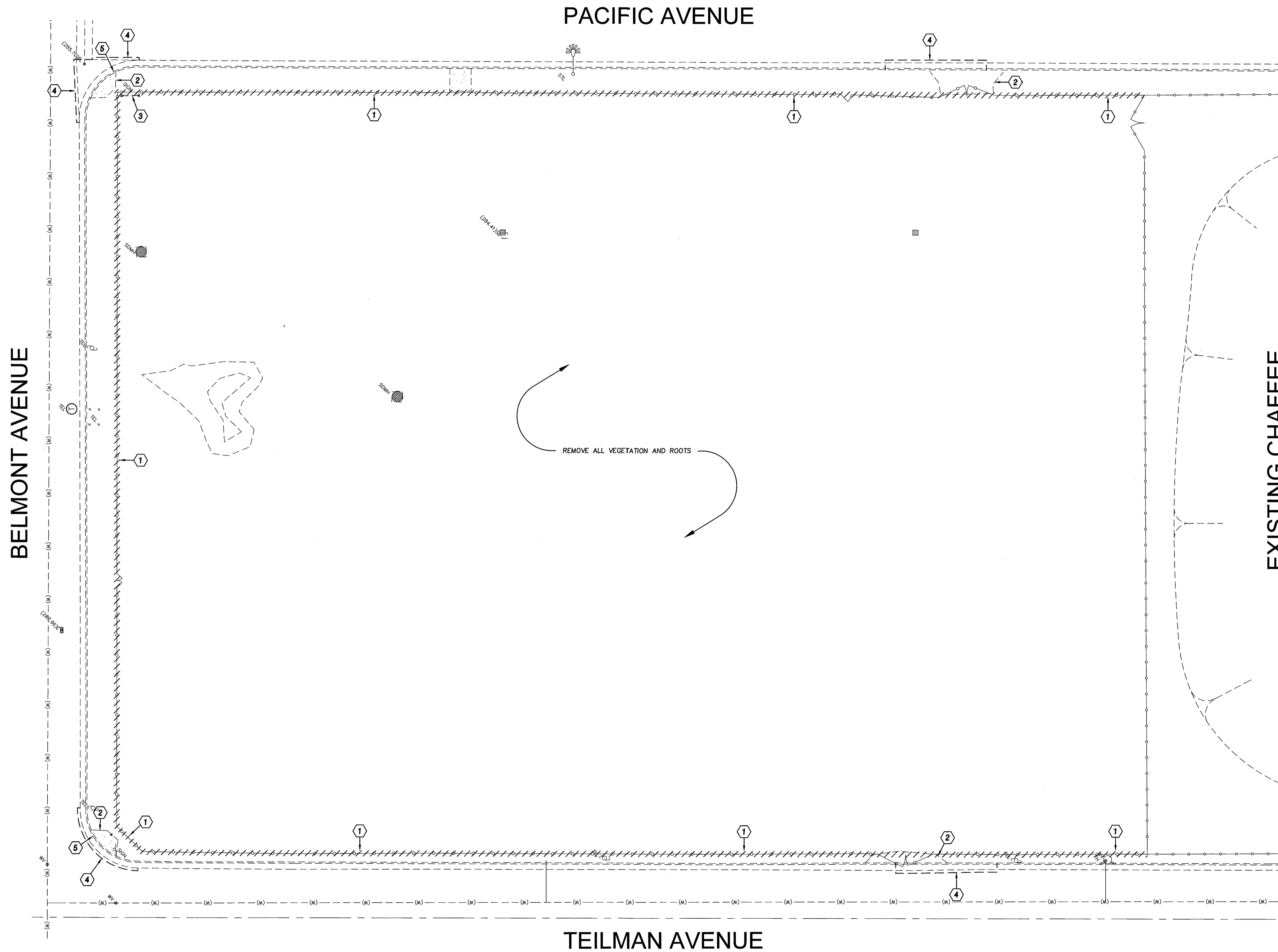
YH Job No. 16-396

Sheet No. 1

of 8 Sheets

PLAN CHECK NO. 18-1907 C-17-069

PROJECT TITLE  
SHEET DESCRIPTION  
Dr. By: MG  
Ch. By: DH  
Date: 3/16/2018  
Scale: As Noted  
YH Job No. 16-396  
Sheet No. 1  
of 8 Sheets

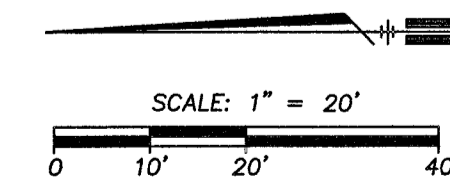


**LEGEND AND KEYNOTES:**

- ① EXISTING CHAIN LINK FENCE, GATES, POSTS AND FOOTING TO BE REMOVED
- ② EXISTING SIDEWALK, RAMP AND SLAB TO BE REMOVED
- ③ EXISTING SIGN, POST AND FOOTING TO BE REMOVED
- ④ SAWCUT AND MATCH EXISTING
- ⑤ EXISTING CURB AND GUTTER TO BE PROTECTED
- ////// LIMITS OF EXISTING CHAIN LINE FENCE TO BE REMOVED

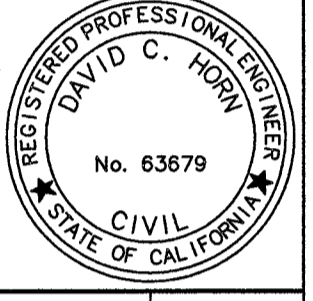
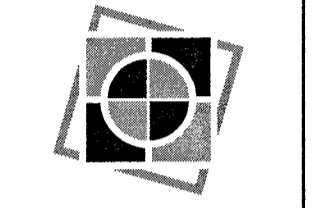
CITY OF FRESNO  
 DEPARTMENT OF PUBLIC WORKS  
 ENGINEER REVIEWED

DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 SUBMITTED BY \_\_\_\_\_  
 SPECIAL PERMITS \_\_\_\_\_  
 ELECTRICAL \_\_\_\_\_  
 PLUMBING \_\_\_\_\_  
 PROJECT DESIGN \_\_\_\_\_  
 GRADING \_\_\_\_\_  
 PLANNING \_\_\_\_\_



Ref. & Rev.

**Yamabe & Horn  
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5-4-18

FRESNO CHAFFEE ZOO  
 BELMONT ENTRANCE  
 DEMOLITION PLAN

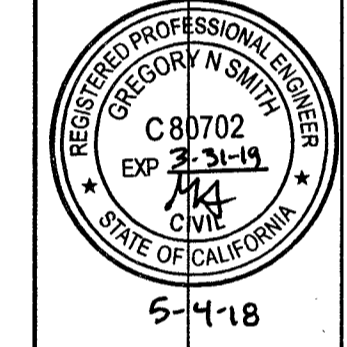
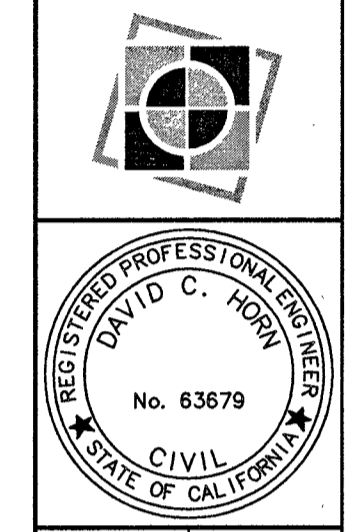
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Dr. By: MG  
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 Date: 3/16/2018  
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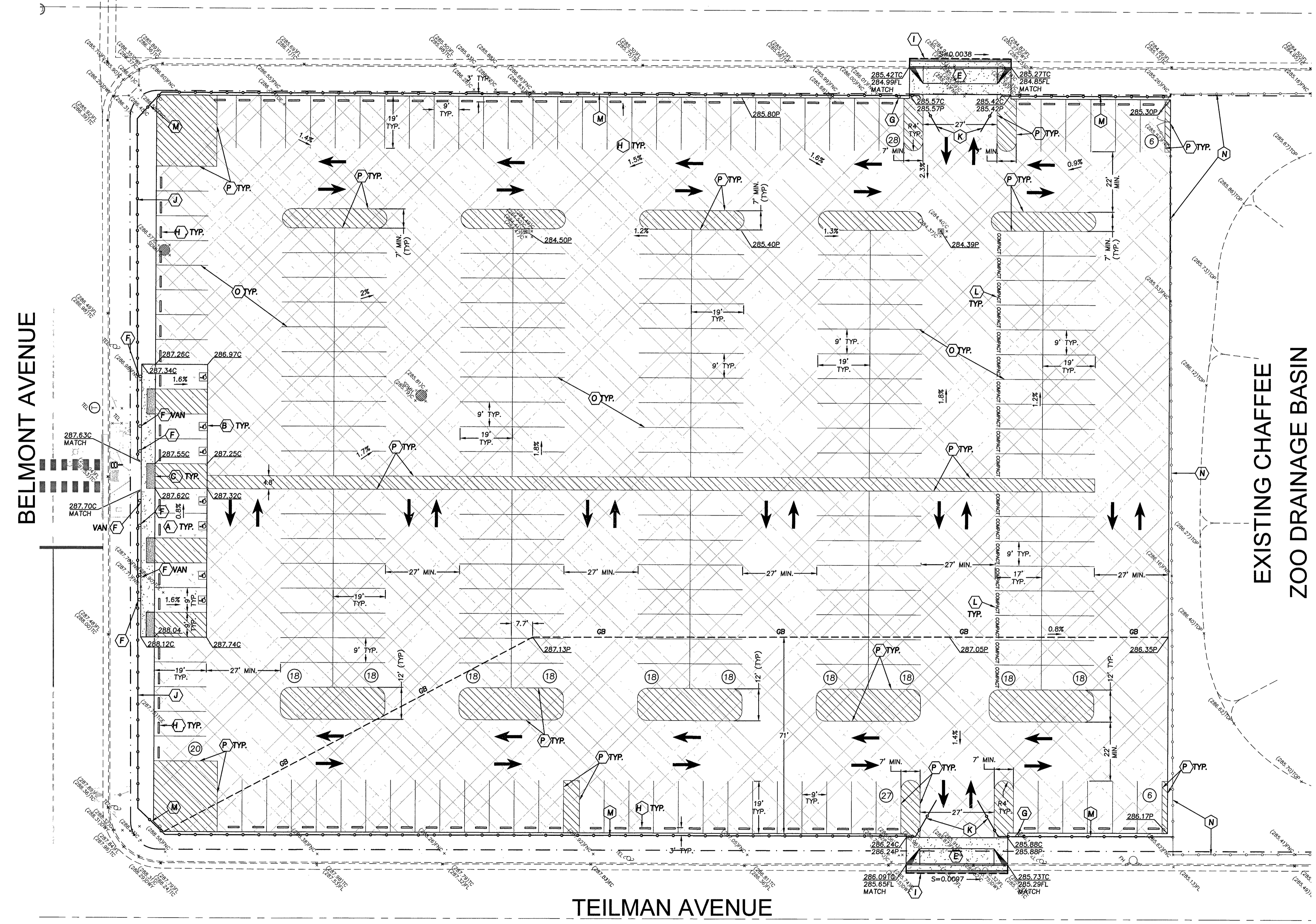
YH Job No. 16-396  
 Sheet No. 2  
 of 8 Sheets

PLAN CHECK NO. 18-1907 C-17-069

F:\2016\16-396\dwg\improvements\City Plans\Parking Lot\16-396\_02-DEMOL.DWG



PACIFIC AVENUE



PARKING COUNT

PROPOSED PARKING STALLS	267
PROVIDED STANDARD ACCESSIBLE STALLS	4
PROVIDED VAN ACCESSIBLE STALLS	3
<b>(#) TOTAL PROPOSED STALLS</b>	<b>273</b>

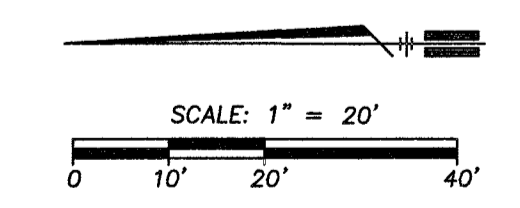
LEGEND AND KEYNOTES:

- (A) PROPOSED ACCESSIBLE STALLS PER DETAIL D6-4
- (B) PROPOSED ISA SYMBOL PER DETAIL D4-4
- (C) PROPOSED TRUNCATED DOMES PER DETAIL D3-4
- (D) PROPOSED CONCRETE SIDEWALK PER CITY OF FRESNO STD. P-5
- (E) PROPOSED CONCRETE DRIVEWAY PER CITY OF FRESNO STD. P-2 AND P-6
- (F) PROPOSED ACCESSIBLE PARKING SIGN PER DETAIL D2-4
- (G) PROPOSED FENCE MOUNTED TOW-AWAY SIGN PER DETAIL D2-4. CONTRACTOR TO PROVIDE ALL NECESSARY MOUNTING HARDWARE.
- (H) PROPOSED WHEEL STOPS PER DETAIL D5-4
- (I) PROPOSED 7" HMA PLUG PER CITY OF FRESNO STD. P-48
- (J) PROPOSED 6" WROUGHT IRON FENCE WITH 4' WALK GATE.
- (K) PROPOSED 6' HIGH 30" WIDE CHAIN LINK SWING GATE WITH STOPS.
- (L) PAINT 6" WHITE "COMPACT", CENTERED IN STALL
- (M) PROPOSED 6' HIGH CHAINLINK FENCE
- (N) EXISTING 4' AND 6' HIGH CHAINLINK FENCE TO REMAIN
- (O) PROPOSED PARKING LOT STRIPING TO BE PER CITY OF FRESNO PARKING MANUAL
- (P) PAINT 4" WIDE WHITE 45° DIAGONAL LINES AT 3' ON CENTER WITH 4" WIDE WHITE PERIMETER LINE

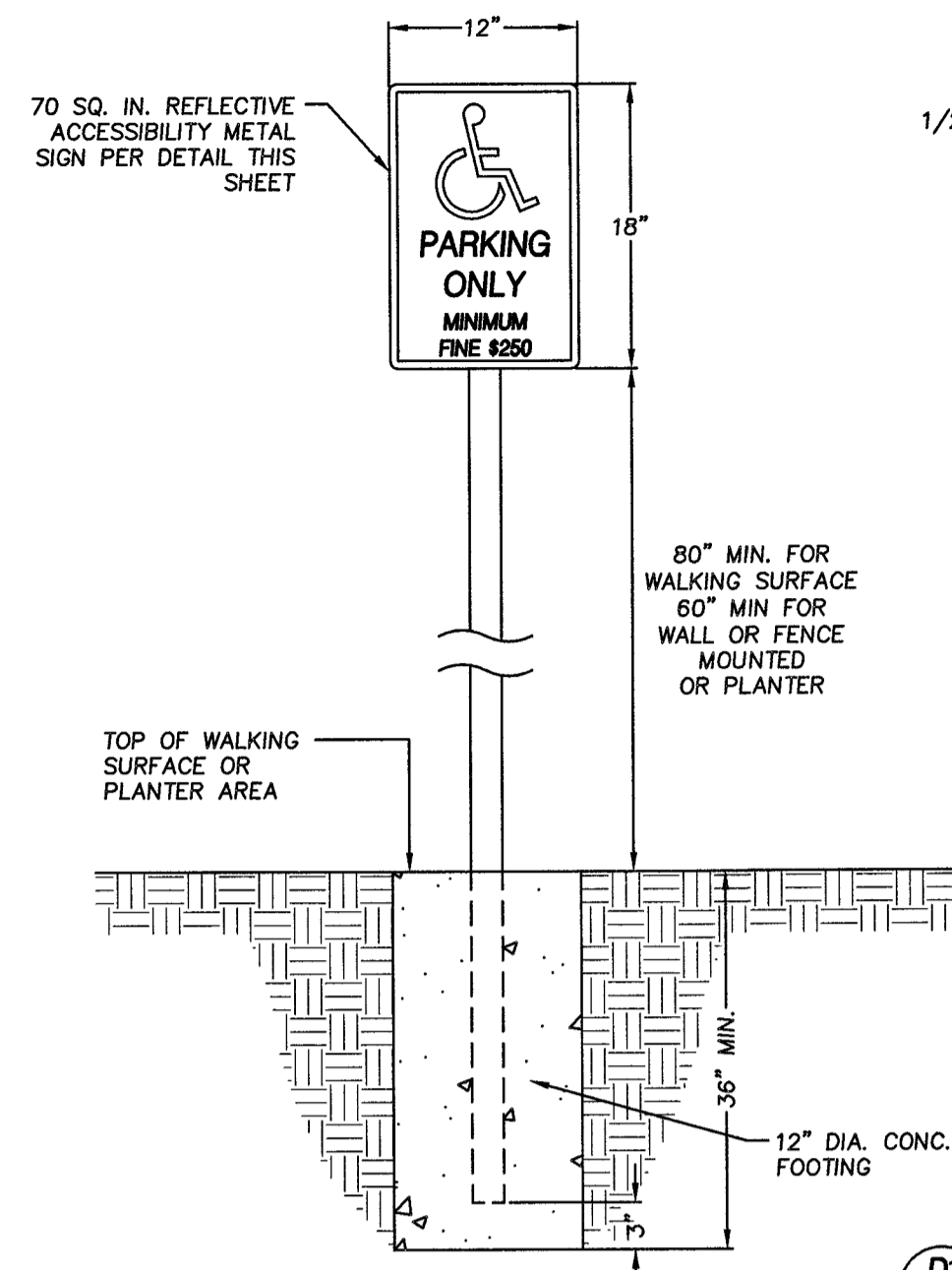
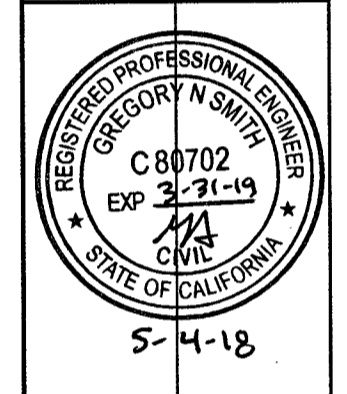
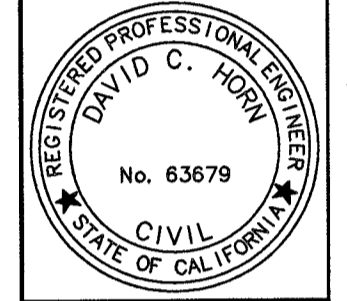
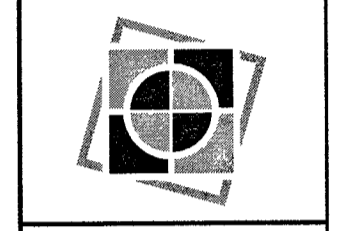
- AREA OF PROPOSED COMPACTED/STABILIZED NATIVE SOIL. POLYPAVE STABILIZER TO BE APPLIED TO COMPACTED NATIVE SOIL PER MANUFACTURER'S SPECIFICATIONS.
- PROPOSED 6" THICK CONCRETE SLAB, 6-SACK, 4000 PSI MIX
- PROPOSED CONCRETE WALK PER CITY OF FRESNO STD. P-5
- PROPOSED 7" HMA PLUG PER CITY OF FRESNO STD. P-48

GRADING NOTES:

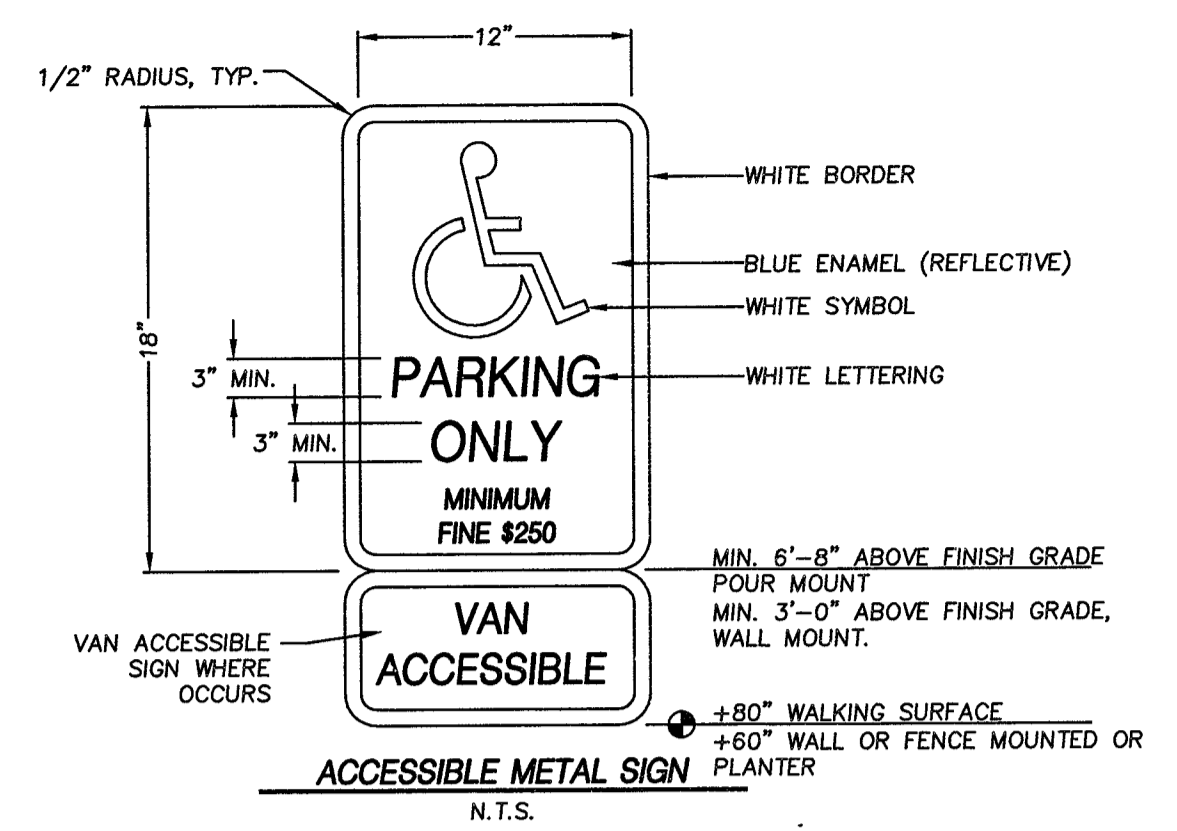
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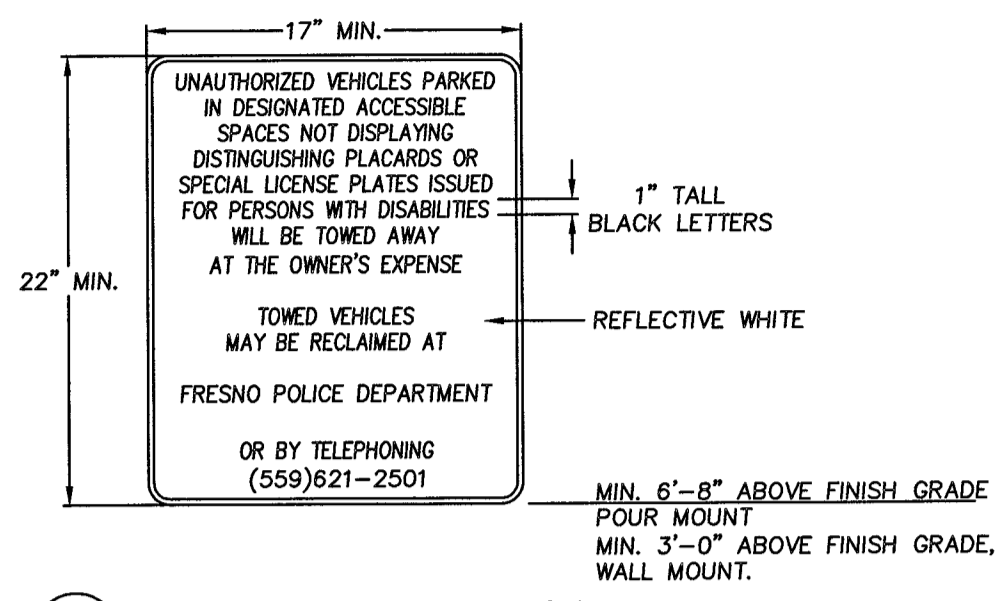
CITY OF FRESNO  
 PUBLIC WORKS DEPARTMENT  
 STAMPED AND SIGNED  
 DATE: \_\_\_\_\_  
 SUPERVISOR: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 PLUMBER: \_\_\_\_\_  
 PROJECT NO.: \_\_\_\_\_  
 GRADING PLAN: \_\_\_\_\_



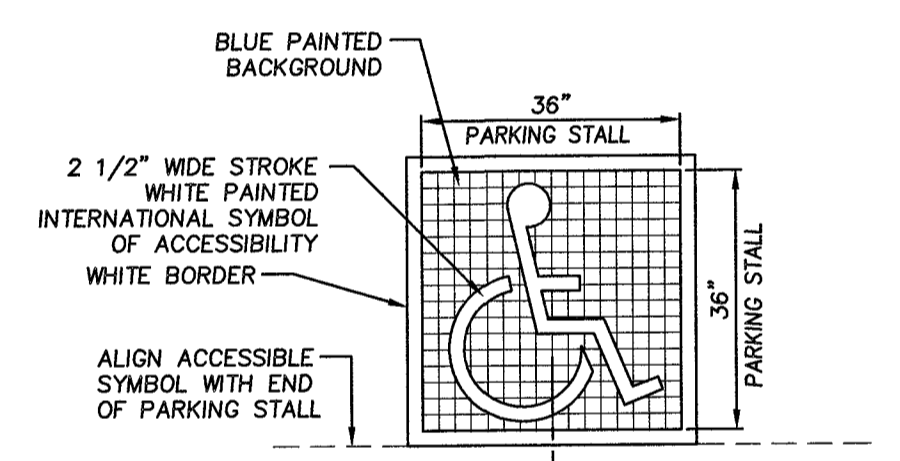
**D1**  
 4  
**ACCESSIBLE STALL SIGN**  
 N.T.S.



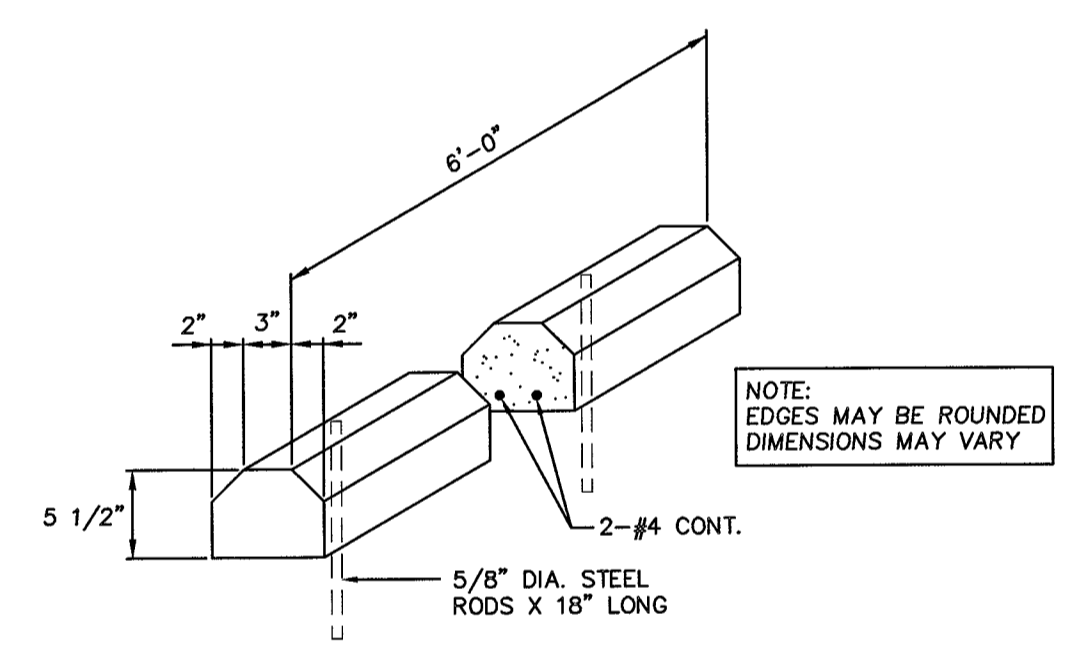
**D2**  
 4  
**R100B "TOW-AWAY" SIGN**  
 N.T.S.



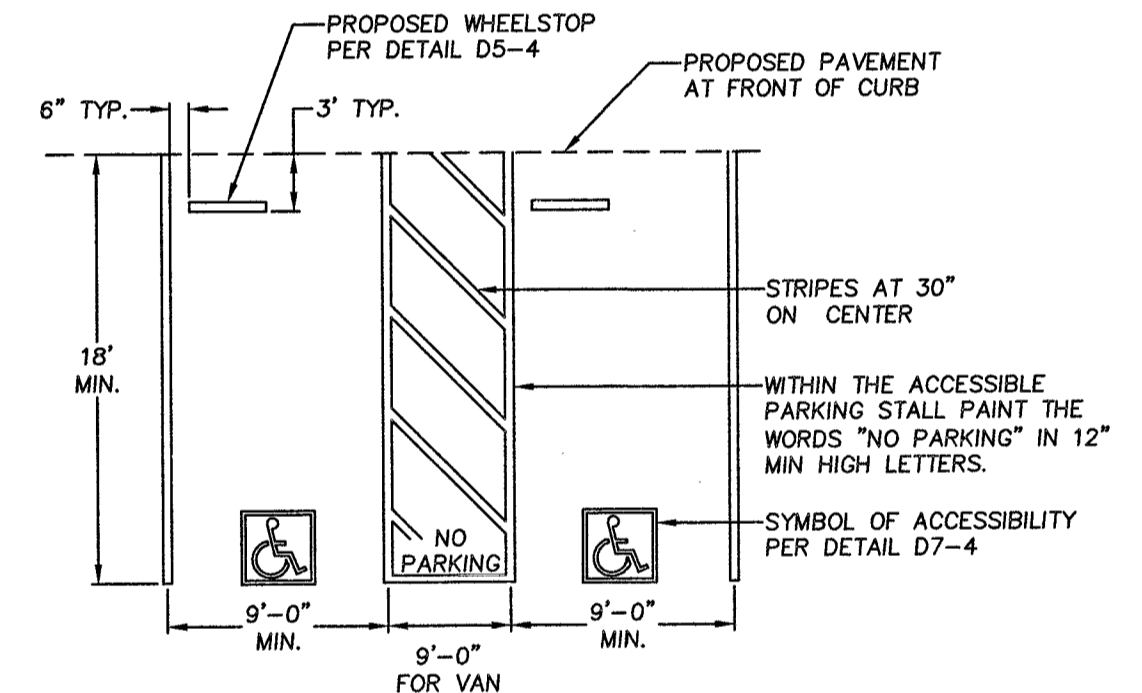
**D3**  
 4  
**TRUNCATED DOMES DETAIL**  
 N.T.S.



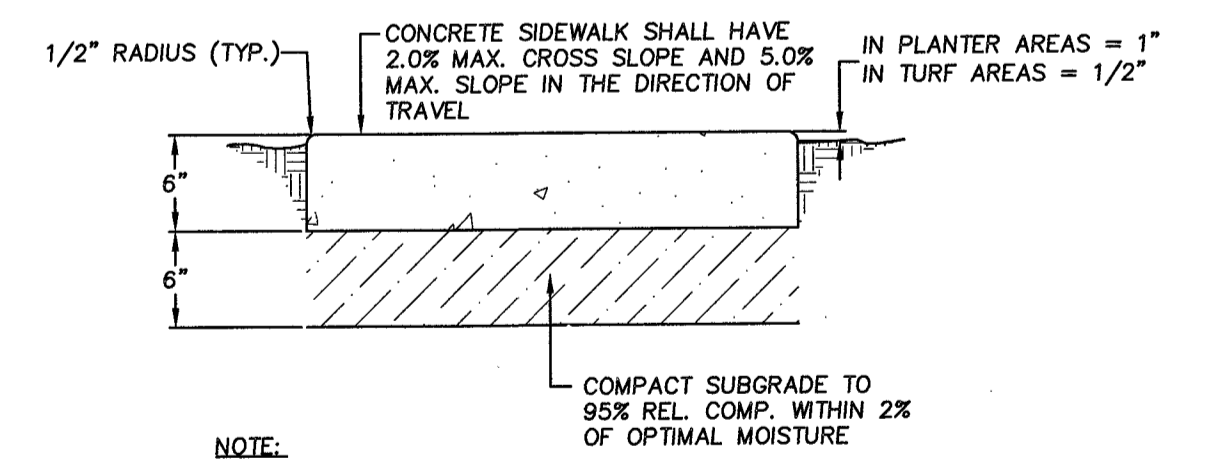
**D4**  
 4  
**INTERNATIONAL SYMBOL OF ACCESSIBILITY**  
 N.T.S.



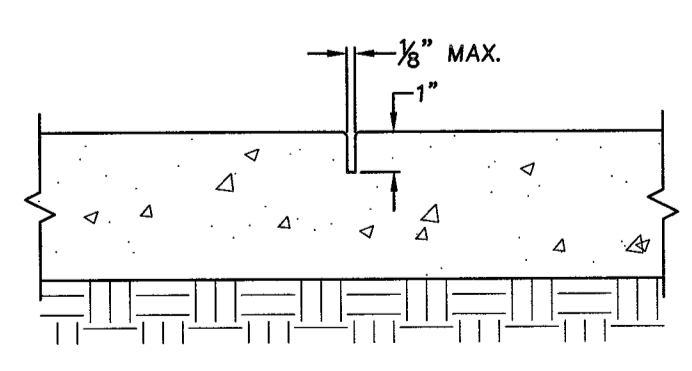
**D5**  
 4  
**CONCRETE WHEEL STOP**  
 N.T.S.



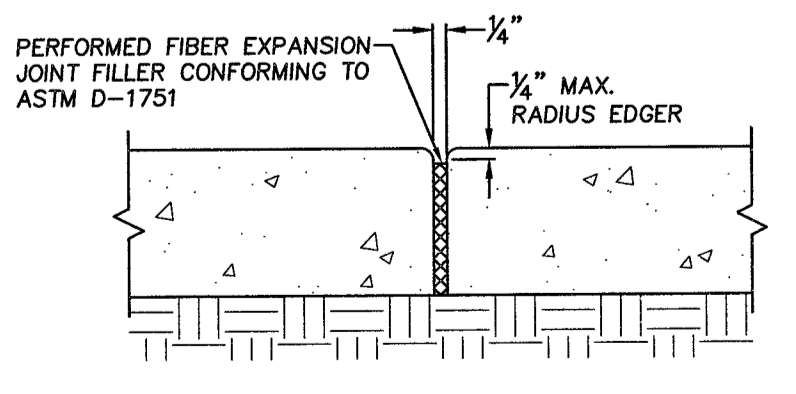
**D6**  
 4  
**ACCESSIBLE PARKING STALL**  
 N.T.S.



- NOTE:
1. FIVE-SACK MIX CONCRETE (MIN. 3,000 PSI, 30 DAYS).
  2. FINISH SHALL BE FREE FROM BLEMISHES AND SHALL BE MEDIUM SWEAT FINISH.



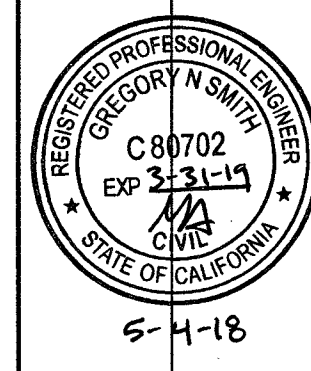
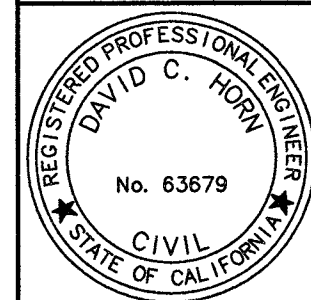
**WEAKENED PLANE JOINT**



**EXPANSION JOINT**

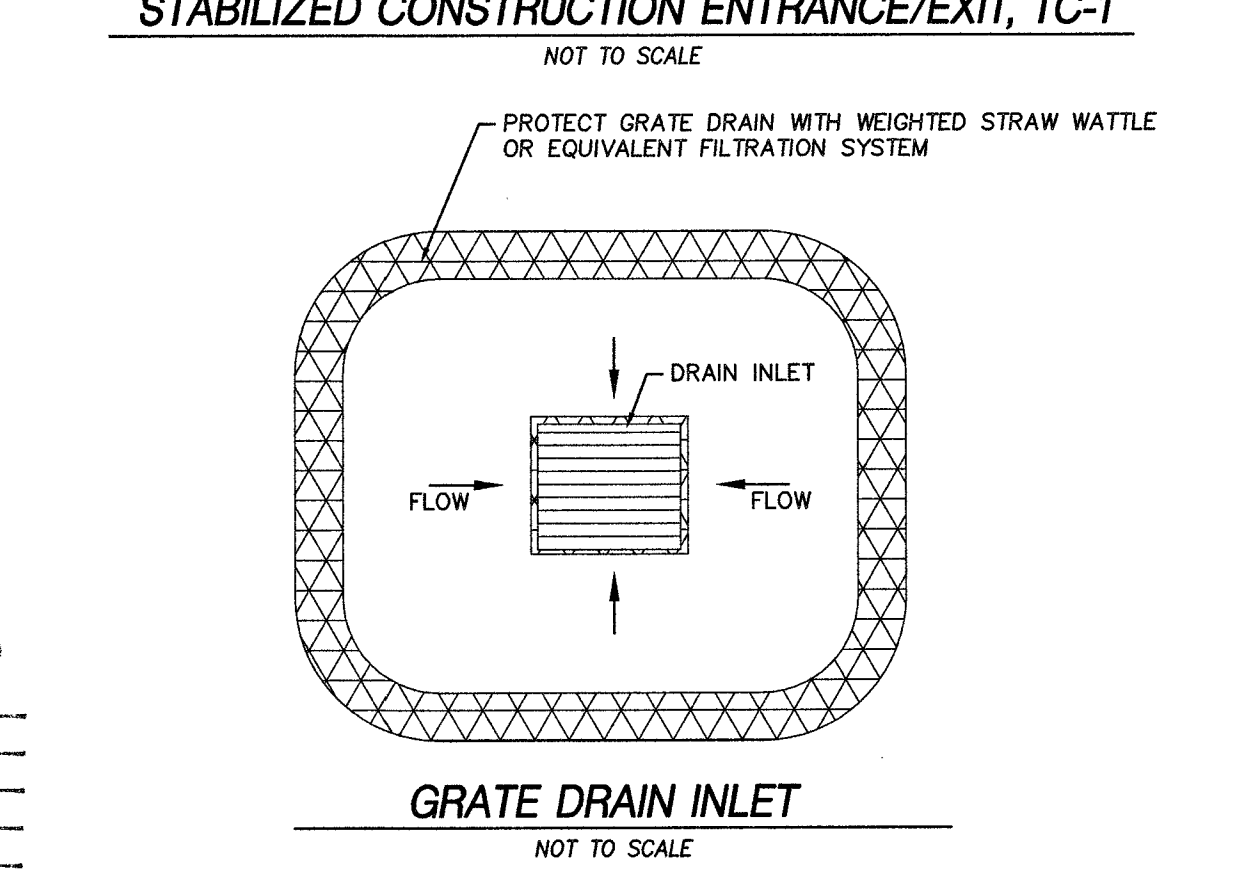
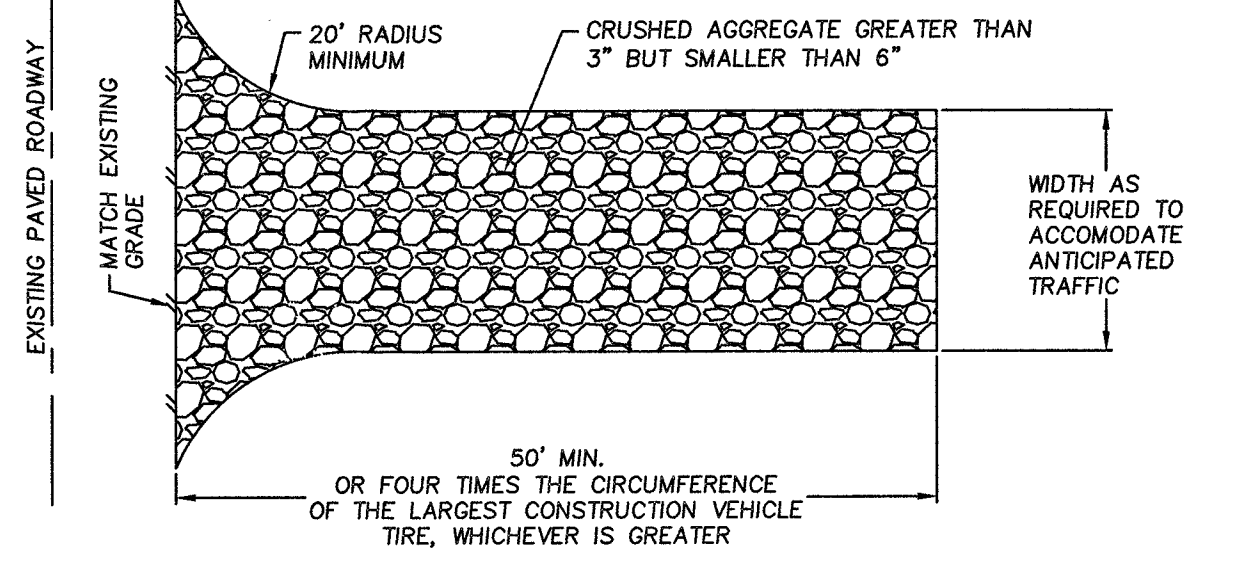
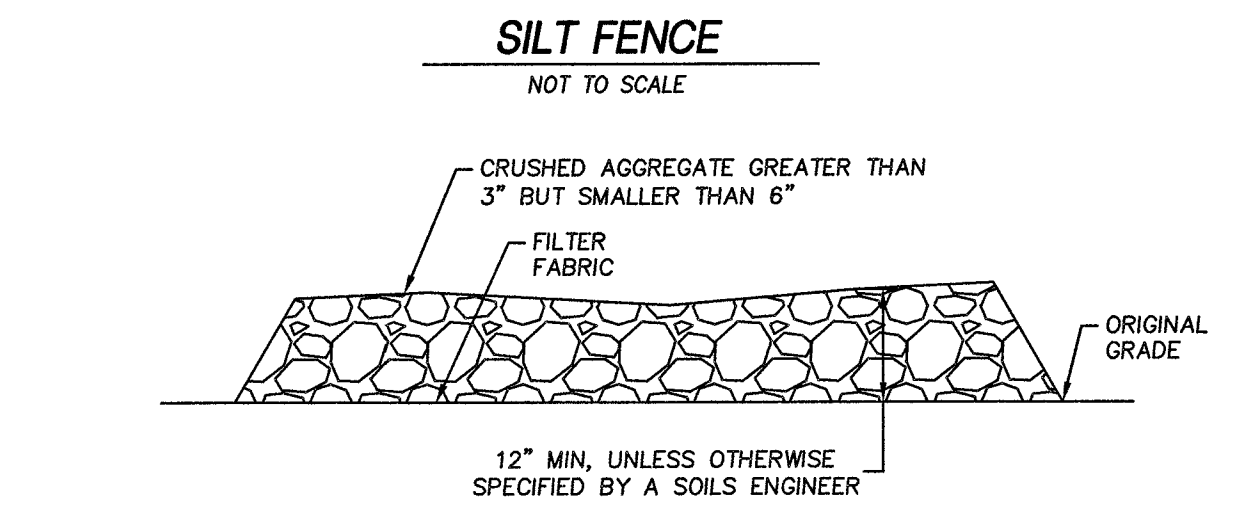
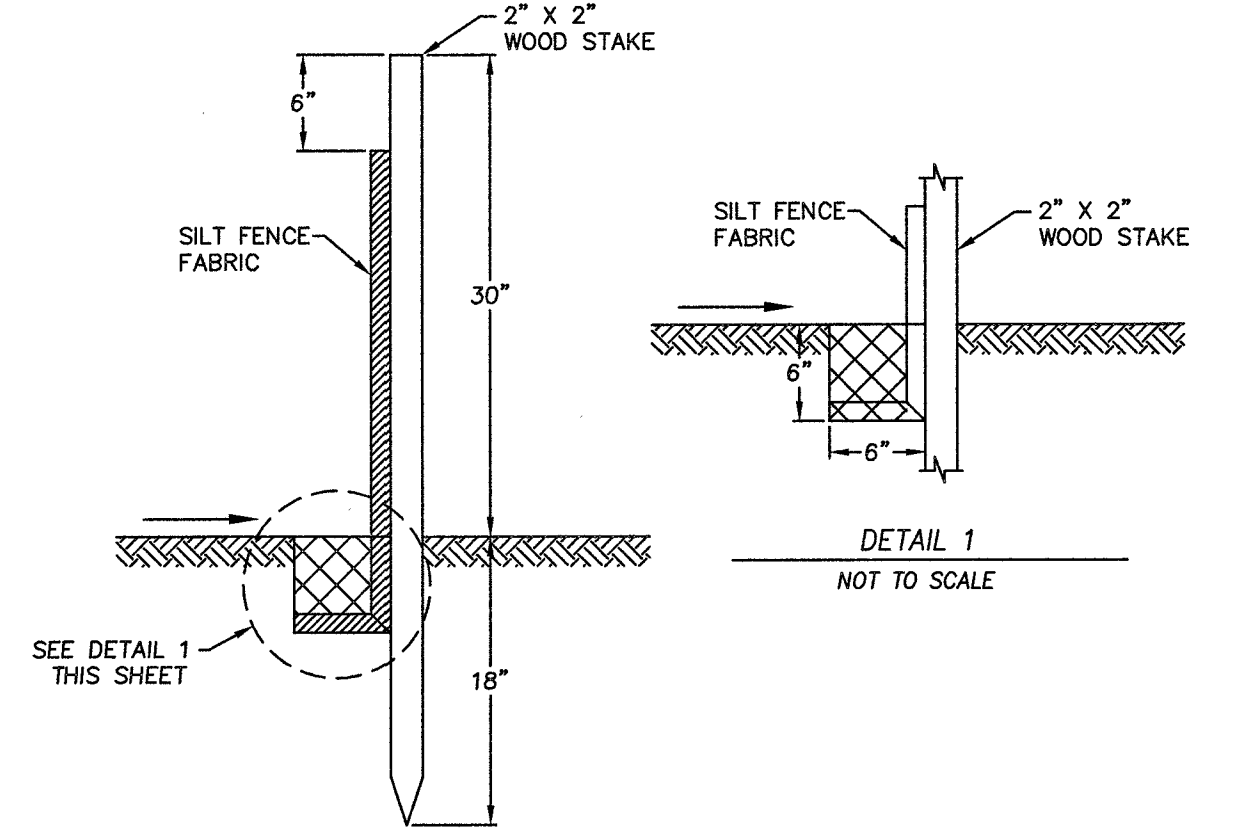
**D7**  
 4  
**CONCRETE SLAB**  
 N.T.S.

APPROVED  
 FOR CONSTRUCTION  
 DATE: 3/16/2018  
 BY: [Signature]



**NOTES:**

- ALL EROSION CONTROL MEASURES AND TECHNIQUES SHALL BE INSTALLED AND MAINTAINED PER THE CALIFORNIA STORMWATER BEST MANAGEMENT PRACTICES HANDBOOK, LATEST EDITION.
- DUST CONTROL SHALL BE PROVIDED FOR ALL AREAS AFFECTED BY CONSTRUCTION.
- CONTRACTOR SHALL SEQUENCE WORK TO REDUCE SOIL EROSION BY WIND, RAIN AND RUNOFF.
- REFER TO THE SWPPP BOOKLET FOR DETAILS ON THE BMP'S USED FOR THE SITE. IT SHALL BE KEPT ON THE SITE AT ALL TIMES AND BE MADE AVAILABLE FOR THE QSP AND OTHERS INSPECTING THE SITE. A DIGITAL COPY CAN BE FOUND AT THE SMARTS WEBSITE.
- THE CONTRACTOR, OWNER & SUB-CONTRACTORS (BUT NOT LIMITED TO) ARE RESPONSIBLE FOR SWPPP (STORM WATER POLLUTION PREVENTION PROGRAM), THE IMPLEMENTATION AND VIOLATIONS. THEY SHOULD BE TRAINED AS NEEDED BY THE QSP (QUALIFIED SWPPP PRACTITIONER) AND OR HIS DESIGNATED REPRESENTATIVE.
- ALL MATERIALS FOR THE PROJECT, INCLUDING THE NATIVE SOIL (SEDIMENT) ARE CONSIDERED POLLUTANTS. THE POLLUTANTS SHALL NOT LEAVE THE SITE VIA DRAINAGE, WHEEL TRACKING AND/OR BY WIND. ALL MATERIALS INCLUDING WASTE ARE TO LEAVE THE SITE IN ADEQUATELY CONTAINED CONTAINERS.
- ALL SITE SWPPP CHANGES ARE TO BE COORDINATED WITH THE QSP. THE PRACTITIONER WILL PROVIDE WEEKLY INSPECTIONS AND AT LEAST ONE FOR EACH 24-HR PERIOD DURING EXTENDED STORM EVENTS, TO CHECK MAINTENANCE AND REPAIRS. ALL REPAIRS AND MAINTENANCE FOR BMP'S ARE TO BE DONE SOON AS POSSIBLE.
- ALL WASTE AND STORAGE CONTAINERS SHALL BE KEPT COVERED AT ALL TIMES TO PREVENT LEACHING OF THE WASTE & MATERIALS FROM ESCAPING THEIR CONTAINER AND ONTO THE SITE. HAZARDOUS WASTE (PAINTS, STAINS, GLUES, ADHESIVES, ETC) SHALL BE STORED IN COVERED AREAS WITH SECONDARY CONTAINMENT FOR LIQUID MATERIALS IN CASE OF ACCIDENTAL LEAKAGE/SPILLAGE.

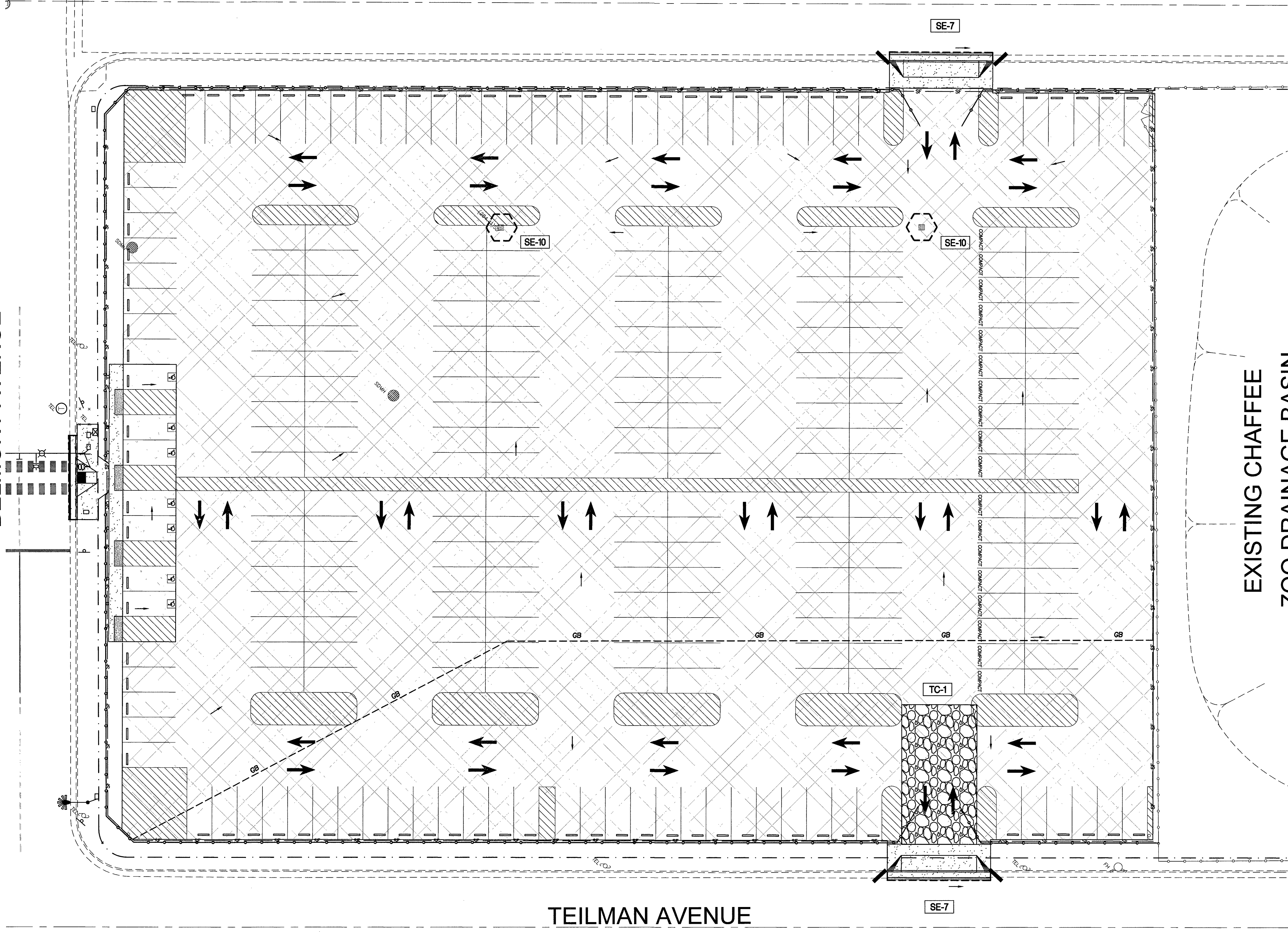


PACIFIC AVENUE

BELMONT AVENUE

EXISTING CHAFFEE ZOO DRAINAGE BASIN

TEILMAN AVENUE



**LEGEND:**

	DRAINAGE DIRECTION		STABILIZED CONSTRUCTION SITE ENTRANCE/EXIT
	GRAVEL BAG BERM OR EQUIVALENT		STORM DRAIN INLET PROTECTION, TYPE AS NOTED
	INSTALL AND MAINTAIN WEIGHTED STRAW WATTLE OR EQUIVALENT DRAIN INLET PROTECTION (SE-5, CONTROL MEASURE 2)		STREET SWEEPING & VACUUMING
	INSTALL AND MAINTAIN A SILT FENCE CONTINUOUSLY AT PERIMETER OF PROJECT. SEE DETAIL THIS SHEET		

**BMP LEGEND:**

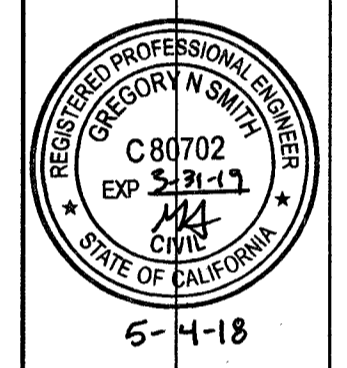
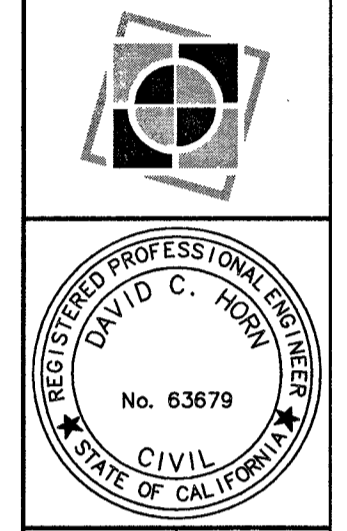
EC-1 SCHEDULING PRESERVATION OF EXISTING VEGETATION	NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
EC-2 SILT FENCE	NS-12 CONCRETE CURING
SE-1 FIBER ROLLS	NS-13 CONCRETE FINISHING
SE-5 STREET SWEEPING AND VACUUMING	TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT
WE-1 WIND EROSION CONTROL	WM-1 MATERIAL DELIVERY AND STORAGE
NS-1 WATER CONSERVATION PRACTICES	WM-2 MATERIAL USE
NS-3 PAVING AND GRINDING OPERATIONS	WM-3 STOCKPILE MANAGEMENT
NS-6 ILLICIT CONNECTION/DISCHARGE	WM-4 SPILL PREVENTION AND CONTROL
NS-7 POTABLE WATER/IRRIGATION	WM-5 SOLID WASTE MANAGEMENT
NS-8 VEHICLE AND EQUIPMENT CLEANING	WM-6 HAZARDOUS WASTE MANAGEMENT
NS-9 VEHICLE AND EQUIPMENT FUELING	WM-8 CONCRETE WASTE MANAGEMENT
	WM-9 SANITARY/SEPTIC WASTE MANAGEMENT

**CONTRACTOR NOTES:**

- CONTRACTOR WILL BE RESPONSIBLE FOR COMPLYING WITH THE STORM WATER DISCHARGE GENERAL PERMIT AND SHALL IMPLEMENT BMP'S AS INDICATED ON THIS PLAN, AT A MINIMUM.
- CONTRACTOR TAKES FULL RESPONSIBILITY FOR IMPLEMENTING, MONITORING, REPORTING, AND ADDING ANY ADDITIONAL BMP'S DURING CONSTRUCTION FOR COMPLIANCE WITH THE GENERAL PERMIT AT THEIR SOLE EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A QUALIFIED SWPPP PRACTITIONER (QSP) FOR THE DURATION OF THE PROJECT AND UNTIL THE NOTICE OF TERMINATION IS APPROVED.
- CONTRACTOR WILL BE RESPONSIBLE FOR PREPARING THE NOTICE OF TERMINATION AND ANNUAL REPORT ON THE STATE WATER BOARD'S SMARTS WEBSITE. THE OWNER (LRP) WILL BE RESPONSIBLE FOR REVIEWING AND SUBMITTING THE NOTICE OF TERMINATION AND ANNUAL REPORT WITHIN SAID WEBSITE.

DATE: 3/16/2018  
BY: MG  
CHECKED BY: DH  
SCALE: AS NOTED  
PROJECT NO: 16-396  
SHEET NO: 5 OF 8

**Yamabe & Horn Engineering, Inc.**  
 CIVIL ENGINEERS • LAND SURVEYORS  
 2985 N. BURR AVENUE SUITE 101 FRESNO, CA 93727  
 TEL (559) 244-3123 WEBSITE YANDHENGINEERING.COM



FRESNO CHAFFEE ZOO  
 BELMONT ENTRANCE  
 BELMONT FRONTAGE GRADING PLAN  
 (ADDITIVE ALTERNATE)

PROJECT TITLE  
 SHEET DESCRIPTION  
 Dr. By: MG  
 Ch. By: DH  
 Date: 3/16/2018  
 Scale: As Noted  
 YH Job No. 16-396  
 Sheet No. 6  
 of 8 Sheets

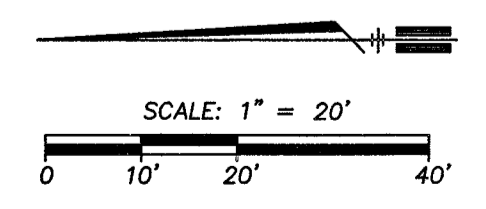
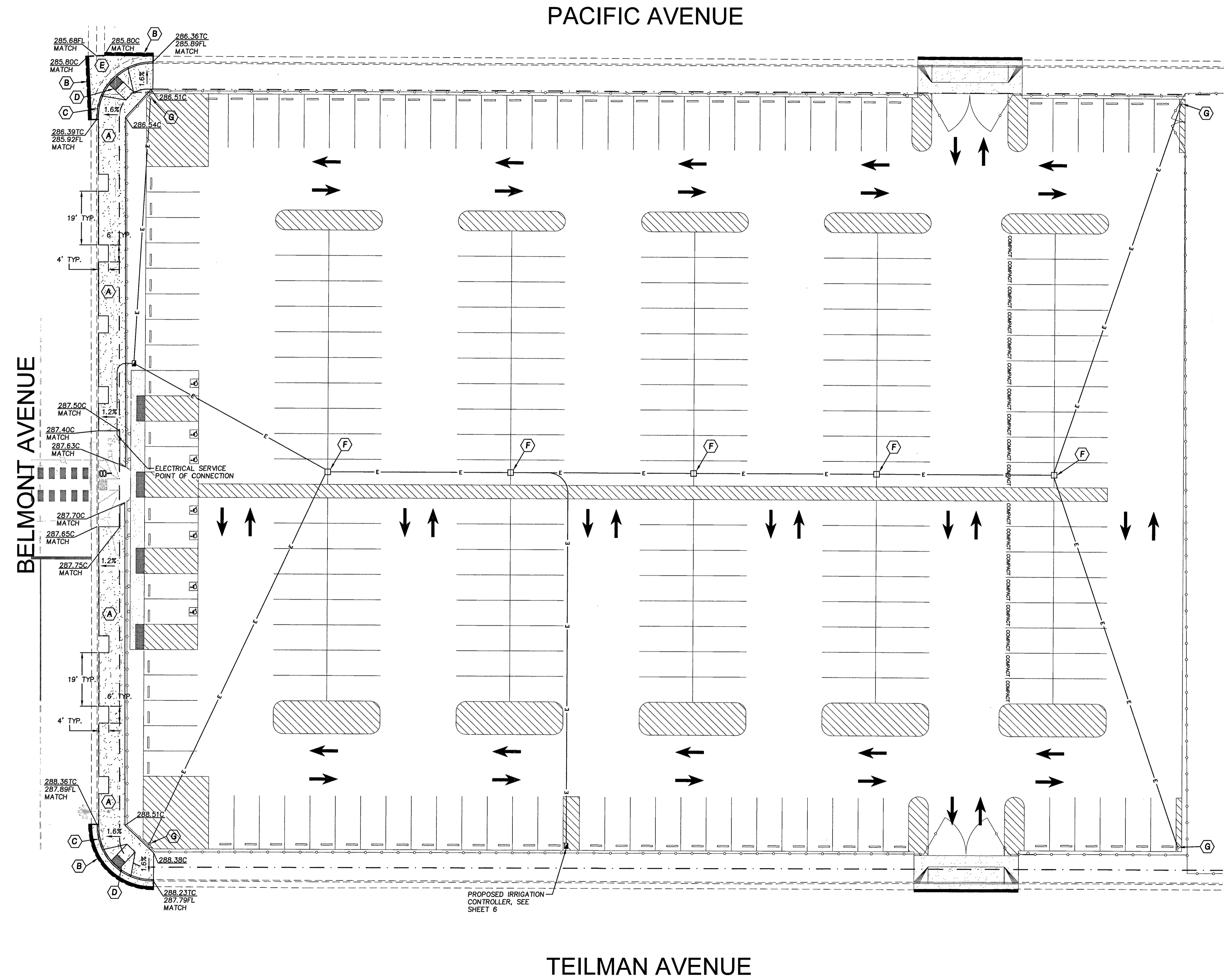
**LEGEND AND KEYNOTES:**

- (A) PROPOSED CONCRETE SIDEWALK PER CITY OF FRESNO STD. P-5
- (B) PROPOSED 7" HMA PLUG PER CITY OF FRESNO STD. P-48
- (C) PROPOSED CONCRETE CURB AND GUTTER PER CITY OF FRESNO STD. P-5
- (D) PROPOSED CONCRETE CURB RAMP PER CITY OF FRESNO STD. P-28
- (E) PROPOSED CONCRETE VALLEY GUTTER PER CITY OF FRESNO STD. P-10
- (F) PROPOSED ELECTRICAL PULLBOX
- (G) PROPOSED SECURITY CAMERA AND POST

— E — PROPOSED 1-1/4" ELECTRICAL CONDUIT

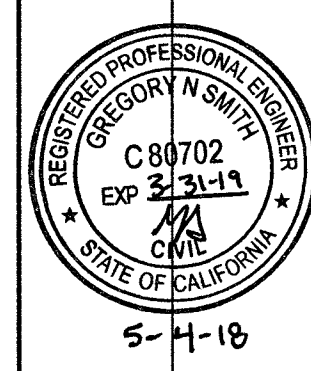
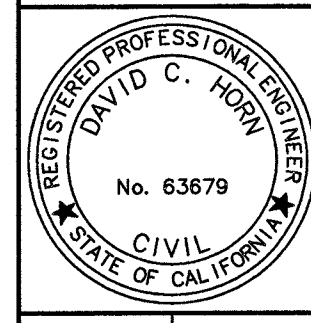
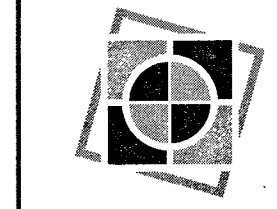
□ PROPOSED CONCRETE SIDEWALK PER CITY OF FRESNO STD. P-5

▨ PROPOSED 7" HMA PLUG PER CITY OF FRESNO STD. P-48



APPROVED  
 3/16/2018  
 16-396-06

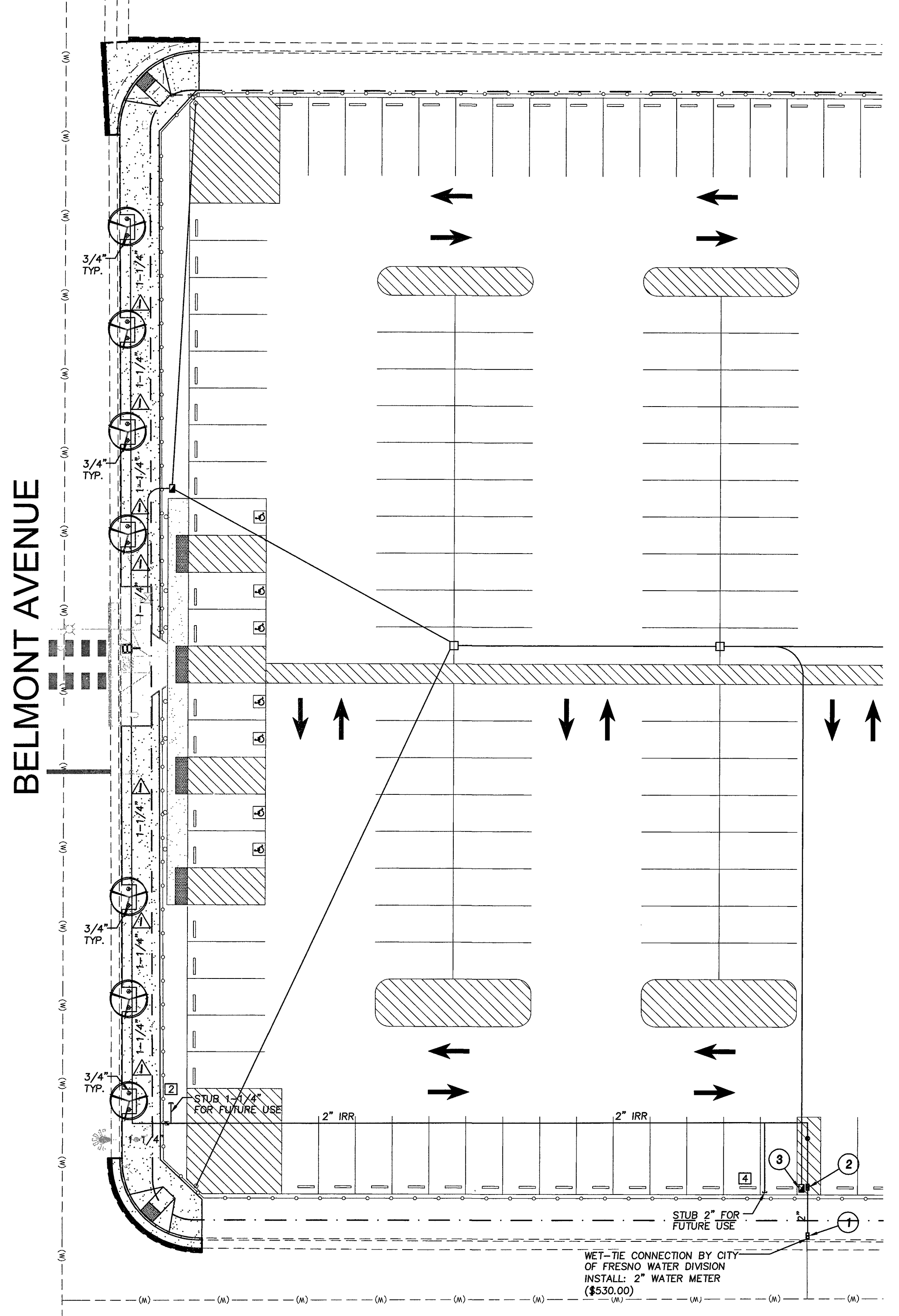
**Yamabe & Horn  
Engineering, Inc.**  
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2908 N. BURL AVENUE SUITE 101 FRESNO, CA 93727  
TEL (559) 244-3123 WEBSTE YAHMENG.COM



FRESNO CHAFFEE ZOO  
BELMONT ENTRANCE  
BELMONT FRONTAGE IRRIGATION PLAN  
(ADDITIVE ALTERNATE)

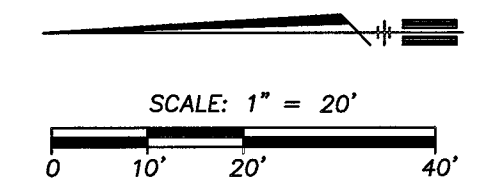
PROJECT TITLE  
SHEET DESCRIPTION  
Dr. By: MG  
Ch. By: DH  
Date: 3/16/2018  
Scale: As Noted  
YH Job No. 16-396  
Sheet No. 7  
of 8 Sheets

PACIFIC AVENUE



TEILMAN AVENUE

IRRIGATION PLAN



**IRRIGATION LEGEND AND KEYNOTES:**

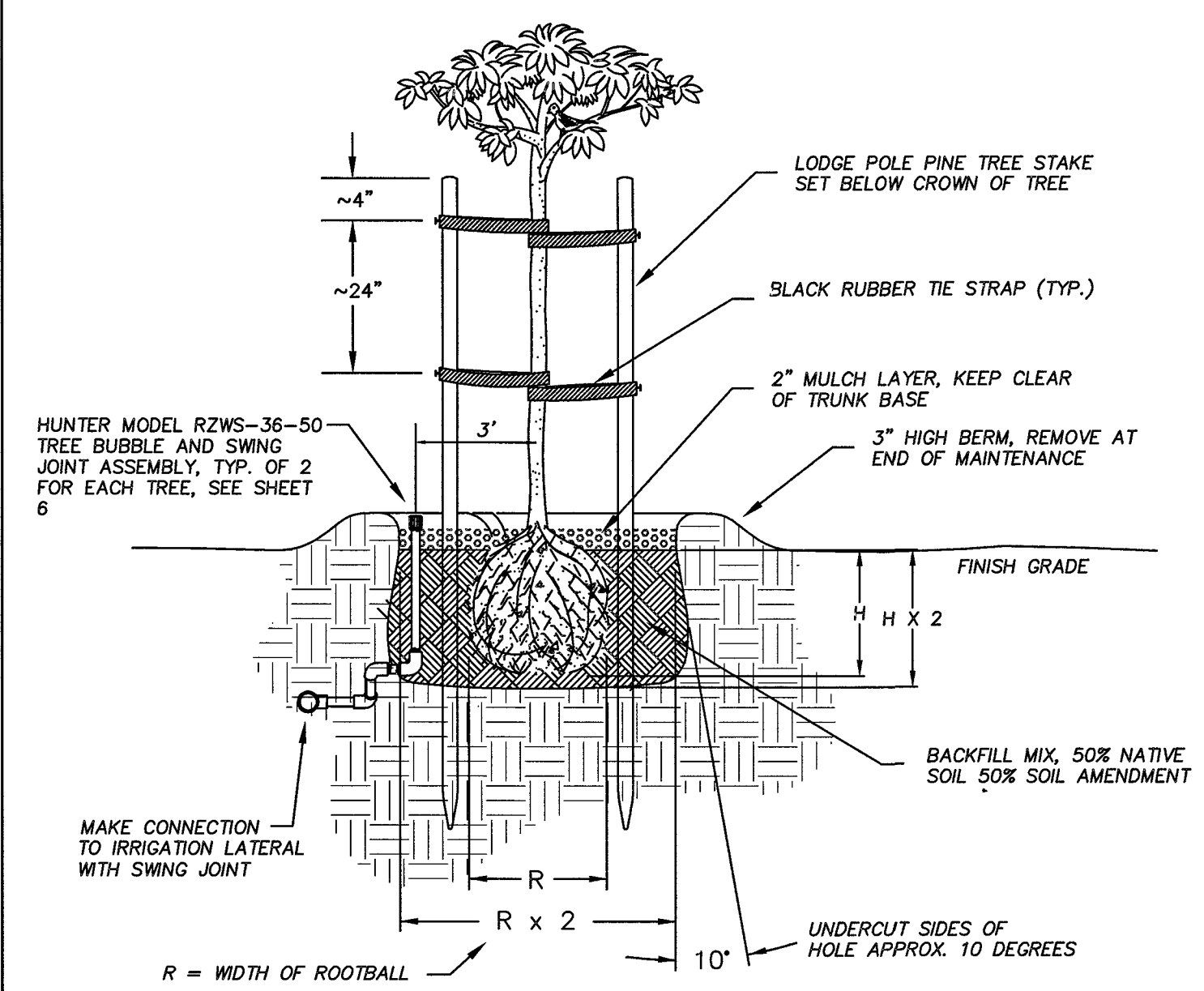
- ⊙ HUNTER MODEL RZWS-36-50 TREE BUBBLE AND SWING JOINT ASSEMBLY (0.5GPM @ 35PSI)
- ⊠ IRRITROL W0 SERIES ELECTRICAL CONTROL VALVE AND CHRISTY B-16 VALVE BOX
- ⊙ 4" RESILENT WEDGE GATE VALVE WITH 2" OPERATING NUT AND CHRISTY CS VALVE BOX OR APPROVED EQUIVALENT PER DETAIL D3/7
- ⊠ HUNTER I-CORE IRRIGATION CONTROLLER MODEL IC-600-SS WITH STAINLESS STEEL PEDESTAL
- ① WATER METER PER CITY OF FRESNO STD. DWG W-1
- ② INSTALL BACKFLOW PREVENTION DEVICE PER CITY OF FRESNO STD. DWG W-11
- ③ INSTALL HUNTER 1-CORE METAL PEDESTAL IRRIGATION CONTROLLER PER DETAIL D7/7
- △ IRRIGATION SLEEVE: 1-3" SCHEDULE 40 PVC PIPE, SEE DETAIL D8/7
- ⊠ NUMBER OF SPARE IRRIGATION CONTROL WIRES AND COMMON WIRE
- 2" CLASS 200 RUBBER GASKET PVC IRRIGATION MAIN LINE WITH DUCTILE IRON FITTINGS, SIZE AND NOTED
- 1/4" SCHEDULE 40 PVC IRRIGATION LATERAL LINE, SIZE AS NOTED
- ⊙ PROPOSED TREE

**IRRIGATION NOTES:**

1. LATERAL LINES SHALL BE SCH. 40 PVC PURPLE PIPE.
2. ADJUST ALL IRRIGATION HEADS TO ELIMINATE OVERSPRAY ON ADJACENT HARD SURFACE AREAS. PROVIDE NEXT SIZE DOWN OF FIXED ARC NOZZLE FOR IRRIGATION HEADS WHERE OVERSPRAY IS EXCESSIVE. PROVIDE CHECK VALVES WHERE NEEDED TO PREVENT LOW HEAD DRAINAGE.
3. PIPING, VALVES, ETC. ARE SHOWN WITHIN PAVED AREAS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE.
4. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXISTS THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY AT NO EXPENSE TO THE OWNER.
5. SPLICING OF 24 VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 24" COIL OF EXCESS WIRE AT EACH SPLICE. LABEL ALL WIRES W/ WATERPROOF MARKERS AT ALL SPLICES, VALVE MANIFOLDS AND CONTROLLER.
6. INSTALL VALVE BOXES 12" FROM AND PERPENDICULAR TO WALKS, CURB, LAWN, BUILDINGS OR LANDSCAPE FEATURES. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, LAWN, ETC. AND EACH BOX SHALL BE A MINIMUM OF 2' APART. SHORT SIDE OF THE VALVE BOX SHALL BE PARALLEL TO WALK, CURB, LAWN, ETC. INSTALL ONE VALVE PER BOX ONLY.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL MATERIAL APPEARING ON PLAN.
8. CONCRETE THRUST BLOCKS SHALL BE PROVIDED ON ALL MAINLINE PIPING. THEY ARE TO BE LOCATED AT ALL ABRUPT CHANGES IN PIPELINE GRADE, CHANGES TO HORIZONTAL ALIGNMENT, REDUCTION IN PIPE SIZES, END OF LINE AND IN-LINE VALVES TO ABSORB ANY AXIAL THRUST OF THE PIPE. THE PIPE MANUFACTURER'S RECOMMENDATIONS FOR THRUST BLOCKS MUST BE FORMED AGAINST UNDISTURBED EARTH.
9. ALL MAIN LINE PIPES SHALL BE PRESSURE TESTED PER STANDARD IRRIGATION SPECIFICATIONS WITH THE VALVES INSTALLED. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NEEDED. IF ANY LEAKS DEVELOP, THE REPAIRS ARE TO BE MADE AND TEST REPEATED UNTIL THE SYSTEM IS PROVEN WATERTIGHT. THE CONTRACTOR IS TO CENTER LOAD THE PIPE AND LEAVE ALL JOINTS EXPOSED FOR INSPECTION. THE PRESSURE TEST SHALL BE OBSERVED AND APPROVED BY THE INSPECTOR. WHEN THE PIPE IS PROVEN WATERTIGHT AND ONLY THEN MAY THE LINE BE BACKFILLED.
10. THE CONTRACTOR SHALL PROVIDE AND KEEP AN UP-TO-DATE "RECORD DRAWING" SHOWING ALL CHANGES TO THE ORIGINAL DRAWINGS AND EXACT LOCATIONS OF FACILITIES INSTALLED. BEFORE FINAL INSPECTION, THE CONTRACTOR SHALL FURNISH "RECORD DRAWINGS" AND DIGITAL COPY TO THE PROJECT INSPECTOR.
11. THE CONTRACTOR SHALL PROVIDE TWO CONTROLLER CHARTS. THE CHART SHALL SHOW THE AREA IRRIGATED BY THE CONTROLLER AND SHALL BE THE MAXIMUM SIZE THE CONTROLLER DOOR WILL ALLOW. THE CHART MAY BE REDUCED DRAWING OF THE RECORD DRAWINGS. THE CHART SHALL BE COLORED WITH A DIFFERENT COLOR FOR EACH STATION. THE CHART SHALL BE LAMINATED OR COVERED IN A WATERTIGHT ENVELOPE.
12. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING A COMPLETE FUNCTIONING IRRIGATION SYSTEM AS DIRECTED BY THE OWNER. CONTRACTOR SHALL FURNISH ALL APPURTENANT ITEMS, MATERIALS, LABOR, EQUIPMENT NECESSARY TO PROVIDE A COMPLETELY FUNCTIONAL IRRIGATION SYSTEM WHETHER SOLELY SHOWN OR CALLED FOR ON PLANS & SPECIFICATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INCLUDE SUCH ITEMS IN THEIR PRICE FOR THE WORK. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR WORK DEEMED INCLUDED IN THE CONTRACT BY OWNER.
13. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR: CONTROL WIRE TERMINATION AT CONTROLLER, SCHEDULING WATER TIMES & PROGRAMS FOR THE IRRIGATION CONTROLLERS ON SITE, PROVIDING THE CORRECT AMOUNT OF WATER AFFORDED TO THE PLANT MATERIAL ON THE PROJECT FOR OPTIMUM GROWTH. THIS REQUIREMENT SHALL RUN FROM START OF CONTRACT UNTIL FINAL ACCEPTANCE OF IRRIGATION SYSTEM. NO ADDITIONAL COMPENSATION SHALL BE AUTHORIZED FOR WORK NEEDED TO PROGRAM, SCHEDULE OR TO SET UP WATERING CYCLES DEEMED INCLUDED IN THE CONTRACT BY THE OWNER.
14. WHEN IRRIGATION SYSTEM IS COMPLETED, THE CONTRACTOR IN THE PRESENCE OF THE OWNER REPRESENTATIVE SHALL PERFORM A COVERAGE TEST. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND LABOR REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE DISCLOSED WITHOUT ANY EXTRA COST TO THE OWNER.
21. THE RP DEVICES SHALL BE TESTED AND APPROVED BY A CERTIFIED ANWA OR ABPA TESTER WITHIN FIVE DAYS OF INSTALLATION. NO CUSTOMER WILL BE GRANTED OCCUPANCY UNTIL LEAD FREE BACKFLOW DEVICE IS AND DOCUMENTED WITH THE CITY OF FRESNO WATER DIVISION. A LIST OF CERTIFIED TESTERS CAN BE OBTAINED BY CALLING 559-621-5335. TEST RESULTS CAN BE SUBMITTED TO THE CITY OF FRESNO'S WEBSITE AT [www.fresno.gov/Government/DepartmentDirectory/PublicUtilities/Watermanagement/Conservation/backflow](http://www.fresno.gov/Government/DepartmentDirectory/PublicUtilities/Watermanagement/Conservation/backflow) OR BY FAX 559-498-1533.

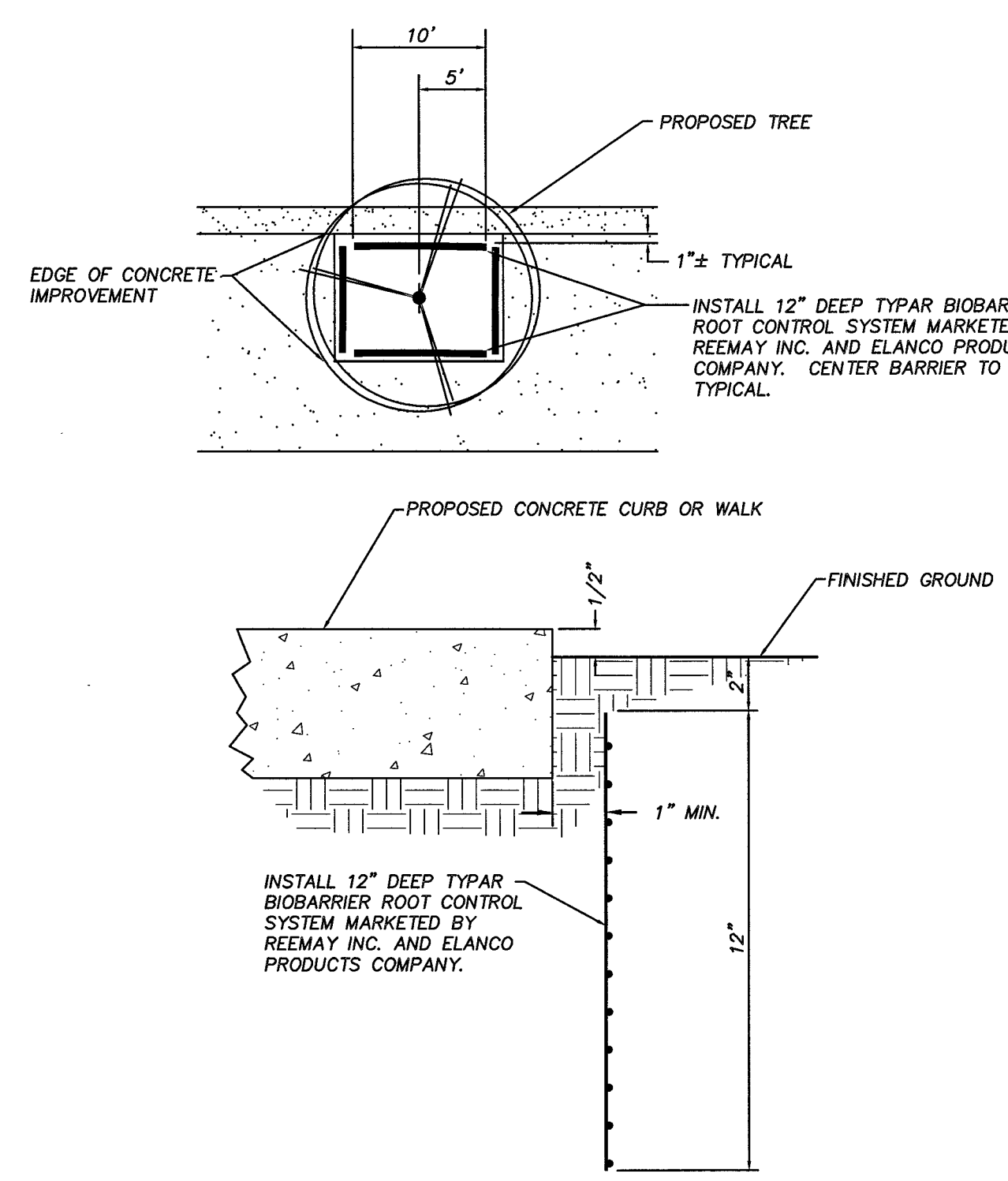
WET-TIE CONNECTION BY CITY OF FRESNO WATER DIVISION  
INSTALL: 2" WATER METER  
(\$530.00)

APPROVED  
DATE: 3/16/2018  
BY: [Signature]

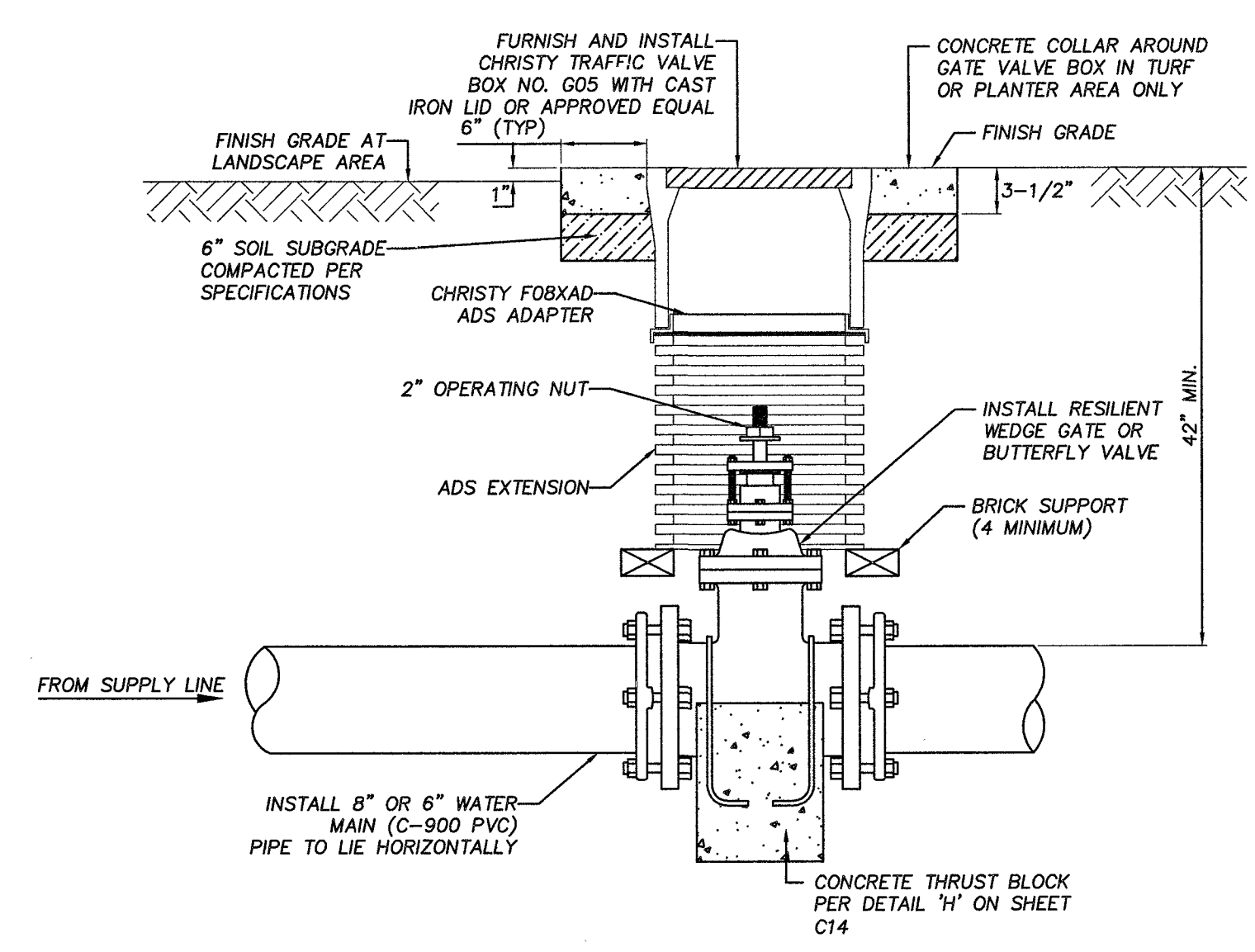


**D1**  
7 **TREE PLANTING**  
N.T.S.

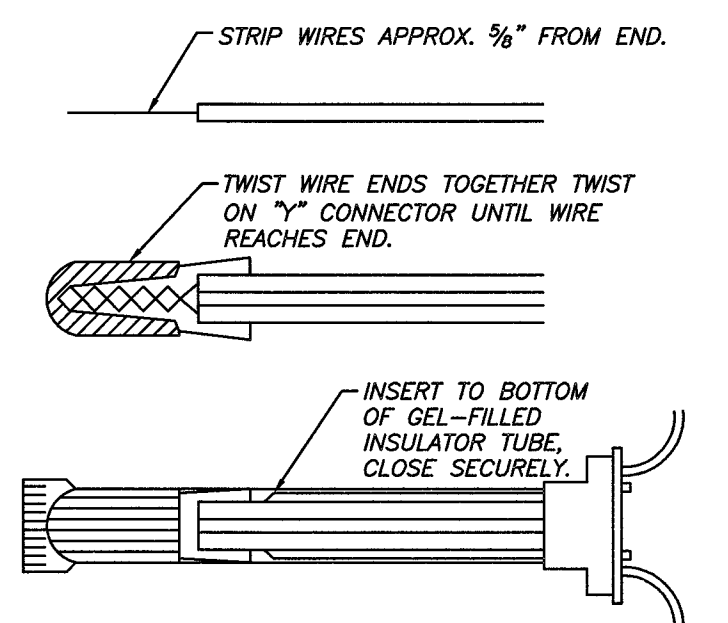
- NOTES:
1. DIG HOLE TWICE THE WIDTH OF THE ROOTBALL, UNDERCUTTING THE SIDES APPROXIMATELY 10 DEGREES. IF HARDPAN IS ENCOUNTERED, DIG 12" DIAMETER HOLE COMPLETELY THROUGH HARDPAN LAYER.
  2. FORM A 3" DEEP INVERTED BERM AROUND HOLE.
  3. SET TREE WITH TOP OF ROOTBALL APPROXIMATELY 1" ABOVE FINISH GRADE. IF NECESSARY, ADJUST BOTTOM OF HOLE WITH BACKFILL MIX TO RAISE ROOTBALL. SCORE SIDES OF ROOTBALL APPROXIMATELY 1" DEEP TO PREVENT CIRCLING ROOTS.
  4. FILL HOLE TO FINISH GRADE LINE WITH BACKFILL MIX OF 50% NATIVE SOIL, 50% SOIL AMENDMENT.
  5. COVER WITH 2" OF MULCH.
  6. FOR DECIDUOUS TREES, DRIVE 2 TREE STAKES, 1 SW AND 1 NE OF TREE. STAKES SHOULD BE 12" FROM TREE AND SET WITH TOP BELOW CROWN OF TREE. FOR CONIFERS, DRIVE 1 STAKE NW OF TREE.
  7. SUPPORT TREE USING FIGURE EIGHT CINCH TIE BLACK RUBBER TIE STRAPS ATTACHED TO TREE STAKES.



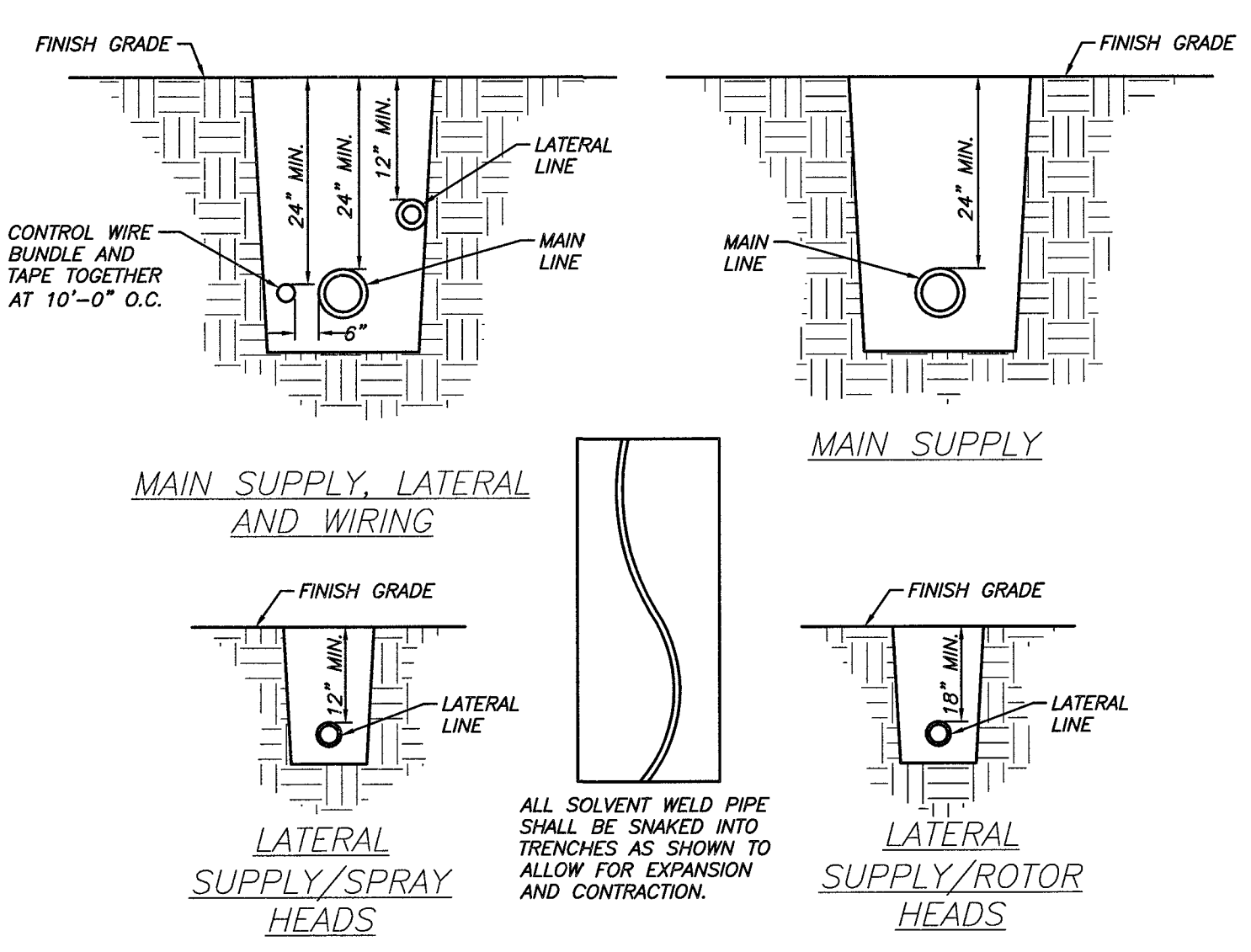
**D2**  
7 **TREEWELL ROOT BARRIER**  
N.T.S.



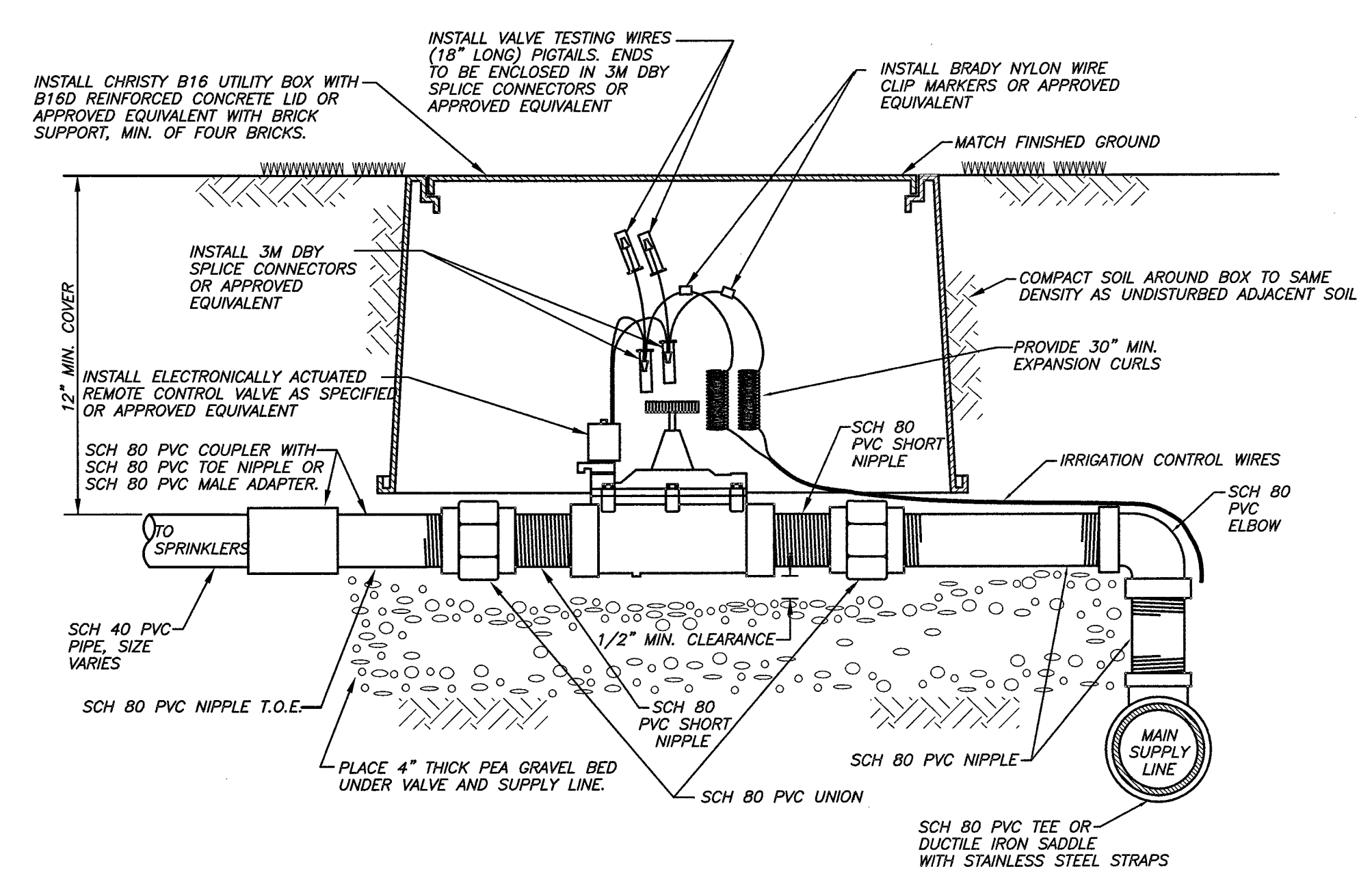
**D3**  
7 **RESILIENT GATE WATER VALVE**  
N.T.S.



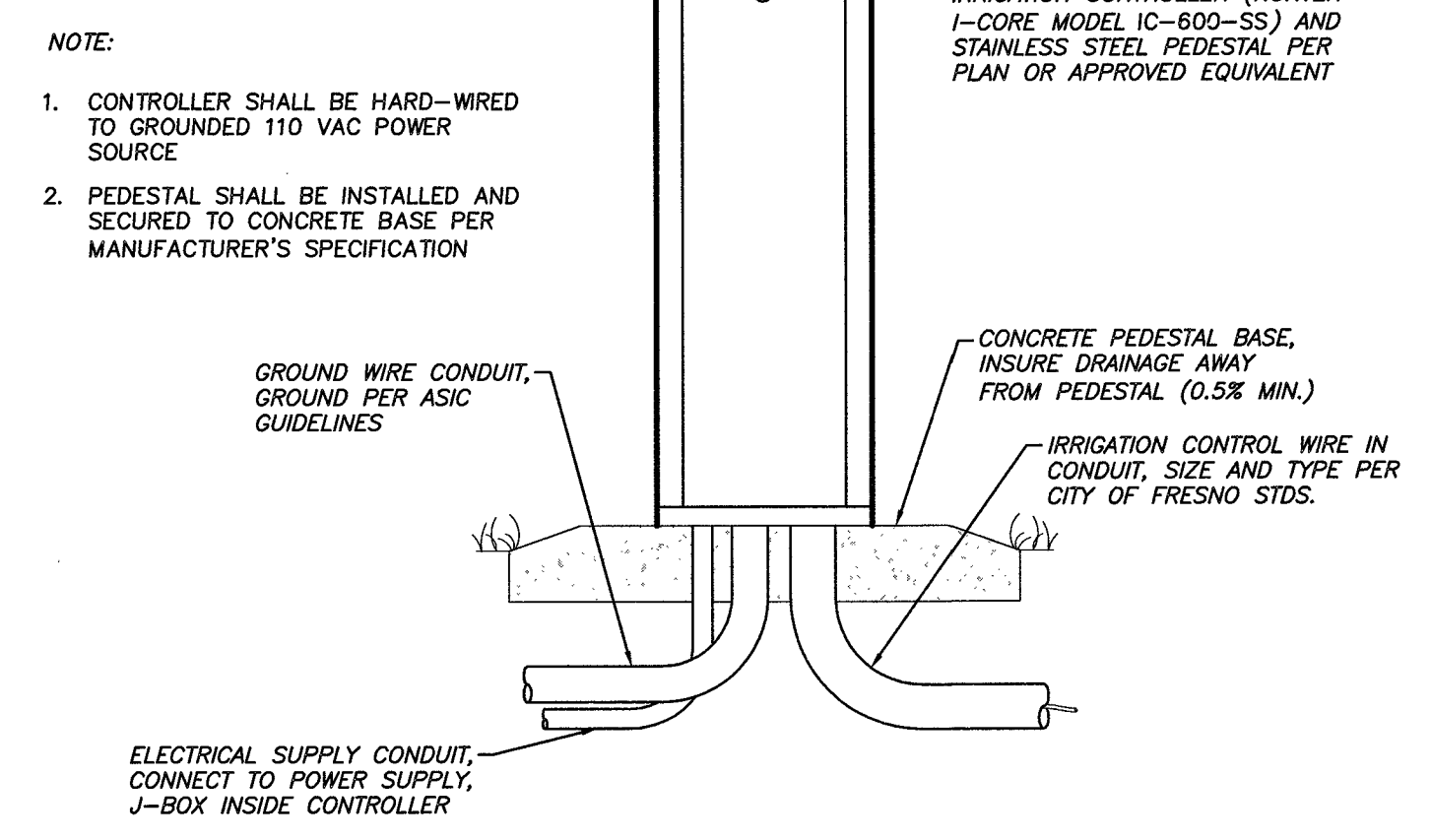
**D4**  
7 **WIRE CONNECTIONS**  
N.T.S.



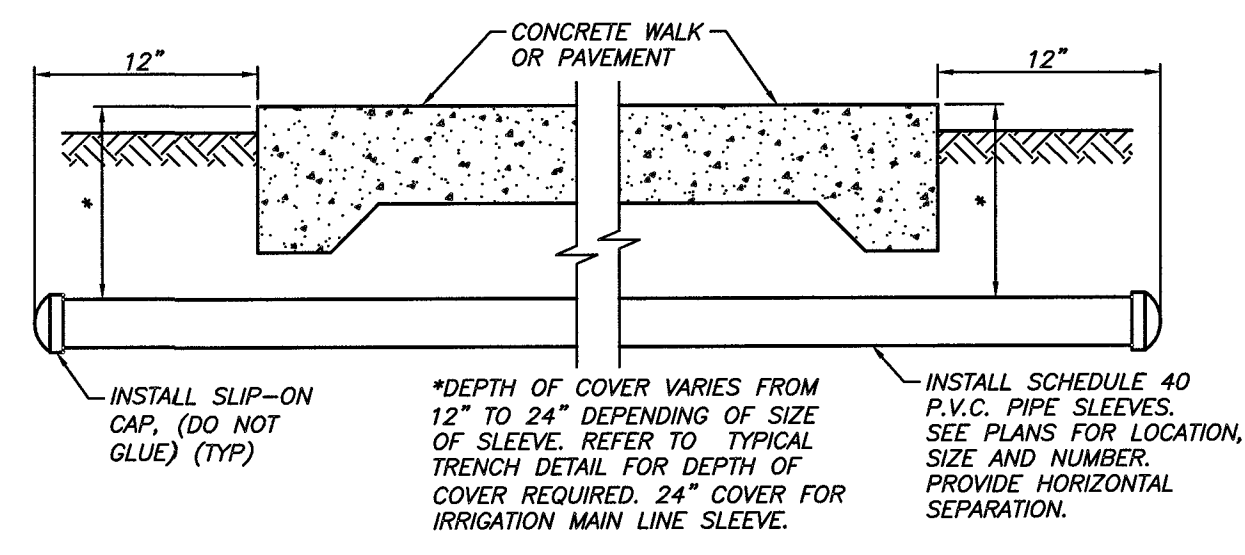
**D5**  
7 **TRENCHING**  
N.T.S.



**D6**  
7 **TYPICAL IRRIGATION VALVE INSTALLATION**  
N.T.S.

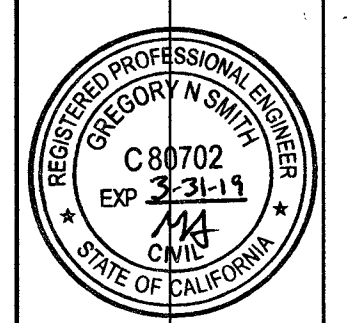
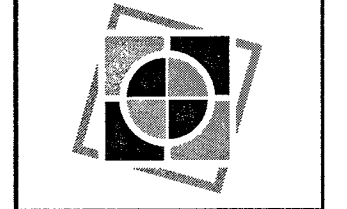


**D7**  
7 **IRRIGATION CONTROLLER PEDESTAL**  
N.T.S.



**D8**  
7 **IRRIGATION PIPE SLEEVE**  
N.T.S.

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FRESNO CHAFFEE ZOO  
BELMONT ENTRANCE  
BELMONT FRONTAGE IRRIGATION PLAN  
(ADDITIVE ALTERNATE)  
PLAN CHECK NO. 18-1907 C-17-069

PROJECT TITLE  
SHEET DESCRIPTION  
Dr. By: MG  
Ch. By: DH  
Date: 3/16/2018  
Scale: As Noted  
YH Job No. 16-396  
Sheet No. 8  
of 8 Sheets