

**AGENDA
MCFARLAND CITY COUNCIL
MCFARLAND SUCCESSOR AGENCY
MCFARLAND PUBLIC FINANCE AUTHORITY
MCFARLAND IMPROVEMENT AUTHORITY
MCFARLAND PARKING AUTHORITY
MCFARLAND USA FOUNDATION**

**SPECIAL MEETING
CITY COUNCIL CHAMBERS
103 W. SHERWOOD AVE, MCFARLAND, CA**

**February 10, 2022
5:30 PM**

In Person Meeting

How to submit public comments:

The meetings of the City Council and all municipal entities, commissions, and boards (“the City”) are open to the public. At regularly scheduled meetings, members of the public may address the city on any item listed on the agenda, or on any non-listed matter over which the city has jurisdiction. At special or emergency meetings, members of the public may only address the city on items listed on the agenda. There is a time limitation of two minutes per person. For any item that is not on the agenda and within the jurisdiction or interest of the city, please come to the podium at this time. The Brown Act does not permit any action or discussion on items not listed on the agenda. If you wish to speak regarding a scheduled agenda item, please come to the podium when the item number and subject matter are announced, and the mayor opens Public Comment on the item. When recognized, please begin by providing your name and address for the record (optional). Anyone wishing to submit written information at the meeting needs to furnish ten (10) copies to the City Clerk in advance to allow for distribution to City Council, staff, and the media. Willful disruption of the meeting shall not be permitted. If the Mayor finds that there is in fact willful disruption of any City Council Meeting, he/she may order the disrupting parties out of the room and subsequently conduct the City’s business without them present.

Americans with Disabilities Act:

In compliance with the ADA, if you need special assistance to participate in a city meeting or other services offered by the City, please contact the City Clerk’s office, at (661) 792-3091 ext. 2135. Notification of at least 48 hours prior to the meeting, or time when services are needed, will assist the city staff in assuring those reasonable arrangements can be made to provide accessibility to the meeting or services.

CALL TO ORDER: Mayor Sally Tafuya

ROLL CALL:

Mayor, Sally Tafuya
Mayor Pro Tem, María T. Pérez
Council Member/Board Member, Saul Ayon
Council Member/Board Member, Ricardo Cano
Council Member/ Board Member, Vacant

INVOCATION

PLEDGE OF ALLEGIANCE

PUBLIC COMMENT: The public may address the Council/Board Member on items, which do not appear on the agenda. Council/Board Members may respond briefly to statements made or questions posed. They may ask a question for clarification; may refer the item to staff for further study or for placement on a future agenda. **Speakers are limited to two minutes for each person. Please state your name and address for the record prior to making a presentation. Fifteen minutes total will be allowed for any one subject.**

ADMINISTRATIVE AGENDA

1. Report, Discuss and Give Direction Regarding Davis Ave Reconstruction from W. Perkins Ave to Elmo Hwy.

ADJOURNMENT

This is to certify this agenda was posted at McFarland City Hall on **February 8, 2022.**


Francisca Alvarado, City Clerk
Peter Cosentini, Assistant City Manager
Kenneth Williams, City Manager/ Chief of Police

Next Meeting: Regular City Council **February 24, 2022.**

The City of McFarland does not discriminate based on disability and complies with the provisions of the Americans with Disabilities Act (ADA). If you need special assistance to participate in this meeting, please contact the City Clerk's Office at (661) 792-3091 at least 48 hours prior to the meeting to make reasonable arrangements to ensure accessibility to this meeting.

MEMORANDUM

CITY OF MCFARLAND

TO: Honorable Mayor and Council Members

FROM: Mario Gonzales, Public Works Director

DATE: January 27, 2022

SUBJECT: Davis Ave. Reconstruction from W. Perkins Ave. to Elmo Hwy

BACKGROUND:

The City of McFarland has identified Davis Ave. from W. Perkins Ave. to Elmo Hwy. as needing major reconstruction. Davis Ave. exhibits a paved surface and structure that is in extremely poor condition, consisting of alligator cracking, block cracking, and numerous patches creating a hazardous surface that is well beyond its useful life. At this time there are two options for the reconstruction of Davis Ave.

DISCUSSION:

Option 1: Current project construction plans include the reconstruction of existing roadway, cross gutters, pavement striping and markings, retrofit of curb ramps at the intersections and alleys and reconstruction of curb & gutter and driveways on the east side of Davis Ave. from W. Perkins to Frontage Rd. only. The recommended roadway reconstruction method is the following: Grind and remove existing roadway asphalt to a depth of 3 inches and then pulverize the exposed material to a depth of 12 inches and then uniformly mix the pulverized material with 3% cement, moisture condition it to the optimum moisture content, and compact it to 95% relative compaction and finally install 4 inches of hot mix asphalt. This structural section would provide a design life of 20 years. The estimated construction cost is \$1,050,134.00. Under this option, it shall be noted that the reconstructed curb and gutter on the east side of Davis Ave., from Hail Ln. to the existing cross gutter, near Kala Loop, will have a slope of about 0.14%. City standards specify a minimum slope of 0.20%.

Option 2: As a second option, City Staff has requested the Engineer to provide a cost estimate for a grind and pave only project. This option includes Grind and remove existing roadway asphalt to a depth of 3 inches, and then install 3 inches of hot mix asphalt. Under this option cross gutters and curb ramps at the intersections and alleys will be reconstructed, with a limited reconstruction of curb and gutter at ADA curb ramps only. There is no reconstruction of driveways, nor sidewalks. This structural section would provide a design life of 10 years. The estimated construction cost is \$652,258.00. There is an additional re-design cost of \$5,500.00 for this option.

Both of the above options include the installation of Class II Bike Lanes with signage, as a bid option item. Depending upon the bid amount, the City has the choice to accept or reject the bid option item.

FISCAL IMPACT:

	Option 1 4" HMA over 12" Soil Cement 20-Year Design Life	Option 2 3" Grind & Cap 10-Year Design Life
Construction Cost Total=	\$ 1,050,134.00	\$ 652,258.00
Bid Option – Class II Bike Lanes=	\$ 18,643.00	\$ 18,643.00
Construction Management= (Inspection, construction materials testing)	\$ 115,000.00	\$ 71,000.00
Additional Design Cost=	\$ 0.00	\$ 5,500.00
Total Cost=	\$ 1,183,777.00	\$ 747,401.00

See attached Engineer's Cost Estimates of the costs break-down.

Attachments:
Cost Estimates

CITY OF McFARLAND
DAVIS AVE. REHABILITATION
W. KERN PERKINS AVE. TO ELMO HWY.
OPTION #1: 20-Year Design Life
TI = 8; 4" HMA over 12" SOIL CEMENT

C&G REPLACEMENT on East Side from W. Perkins Ave. to Frontage Rd

BASE BID

ITEM NO.	ITEM CODE	UNIT OF MEASURE	EST. QUANTITY	COST PER UNIT	TOTAL COST
1	SITE DEMOLITION, GRADING, BALANCE ROADWAY/SITE TO NEW GRADE	L.S.	1	\$ 100,000.00	\$ 100,000.00
2	COLD PLANE 3" EXISTING AC SURFACE AND HAUL OFF SITE	S.F.	135,699	\$ 0.35	\$ 47,495.00
3	HAUL OFF SITE EXCESS BASE MATERIAL	C.Y.	214	\$ 30.00	\$ 6,420.00
4	CEMENT TREATED SUBGRADE - PULVERIZE 12" EXIST. MATERIAL & MIX WITH 3% CEMENT, WATER, AND COMPACT TO 95%	S.F.	134,660	\$ 1.00	\$ 134,660.00
5	CLASS 2 AGG. BASE COMPACTED TO 95%	TON	132	\$ 80.00	\$ 10,560.00
6	TYPE "A" HOT MIX ASPHALT	TON	3,600	\$ 95.00	\$ 342,000.00
7	APPLY FOG SEAL ON NEW PAVEMENT	L.S.	1	\$ 10,000.00	\$ 10,000.00
8	INSTALL CASE A CURB RAMP (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	EA.	5	\$ 3,000.00	\$ 15,000.00
9	INSTALL CASE B CURB RAMP (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	EA.	6	\$ 3,000.00	\$ 18,000.00
10	INSTALL CURB & GUTTER - MATCH EXISTING (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	L.F.	2,450	\$ 30.00	\$ 73,500.00
11	INSTALL 4" THICK SIDEWALK (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	S.F.	1,023	\$ 11.00	\$ 11,253.00
12	INSTALL 8" THICK CONCRETE CROSS GUTTER/APRON/ALLEY APPROACH (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 95%)	S.F.	2,901	\$ 16.00	\$ 46,416.00
13	INSTALL 6" THICK CONCRETE RESIDENTIAL DRIVE APPROACH (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	S.F.	3,133	\$ 13.00	\$ 40,729.00
14	ADJUST SEWER MANHOLE TO GRADE	EA.	5	\$ 1,900.00	\$ 9,500.00
15	ADJUST UTIL BOX/ MONUMENT TO GRADE	EA.	6	\$ 1,600.00	\$ 9,600.00
16	INSTALL 12" SOLID YELLOW STRIPE (CROSS WALK & ISLAND) - THERMOPLASTIC	L.F.	155	\$ 5.00	\$ 775.00
17	INSTALL 12" LIMIT LINE - THERMOPLASTIC	L.F.	150	\$ 5.00	\$ 750.00
18	INSTALL 6" YELLOW CENTERLINE - THERMOPLASTIC - DETAIL 22	L.F.	450	\$ 3.25	\$ 1,463.00
19	INSTALL 6" YELLOW CENTERLINE - THERMOPLASTIC - DETAIL 2	L.F.	2,300	\$ 1.50	\$ 3,450.00
20	INSTALL WHITE THERMOPLASTIC PAVEMENT MARKINGS	S.F.	132	\$ 25.00	\$ 3,300.00
21	FURNISH AND INSTALL SOLAR-POWERED FLASHING LED STOP SIGN - R1-1 (36"x36")	EA.	3	\$ 3,250.00	\$ 9,750.00
22	ADJUST/RELOCATE EXISTING SIGN, FINISH AND INSTALL NEW POLE	EA.	4	\$ 275.00	\$ 1,100.00
23	FURNISH AND INSTALL - PROJECT FUNDING SIGN FOR SB1 - C48 (CA) (48"x30")	EA.	2	\$ 1,000.00	\$ 2,000.00
24	QUALITY CONTROL PROGRAM	L.S.	1	\$ 15,000.00	\$ 15,000.00
25	PREPARE AND IMPLEMENT SWPPP	L.S.	1	\$ 8,000.00	\$ 8,000.00
26	TEMPORARY TRAFFIC CONTROL	L.S.	1	\$ 40,000.00	\$ 40,000.00

UPDATED: 1/18/22

BY: JMP

Construction Subtotal: \$ 960,721.00

Contingency (10%): \$ 96,072.00

Construction Total: \$ 1,056,793.00**BID OPTION 1**

27	INSTALL 6" WHITE BIKE LANE LINE - THERMOPLASTIC - DETAIL 39 & 39A	L.F.	9,228	\$ 1.00	\$ 9,228.00
28	INSTALL BIKE LANE MARKINGS - THERMOPLASTIC	S.F.	168	\$ 15.00	\$ 2,520.00
29	FURNISH AND INSTALL "BIKE LANE" SIGN - R81(CA). 12"x8"	EA.	16	\$ 300.00	\$ 4,800.00
30	FURNISH AND INSTALL "BEGIN" SIGN - R81A(CA). 12"x5"	EA.	2	\$ 100.00	\$ 200.00
31	FURNISH AND INSTALL "END" SIGN - R81B(CA). 8"x5"	EA.	2	\$ 100.00	\$ 200.00

UPDATED: 1/18/22

BY: JMP

Construction Subtotal: \$ 16,948.00

Contingency (10%): \$ 1,695.00

Construction Total: \$ 18,643.00

**CITY OF McFARLAND
DAVIS AVE. REHABILITATION
W. KERN PERKINS AVE. TO ELMO HWY.**

OPTION #2: 10-Year Design Life

TI = 6; 3" HMA Grind & Cap

LIMITED C&G REPLACEMENT AT ADA CURB RAMPS ONLY

BASE BID

ITEM NO.	ITEM CODE	UNIT OF MEASURE	EST. QUANTITY	COST PER UNIT	TOTAL COST
1	SITE DEMOLITION, GRADING, BALANCE ROADWAY/SITE TO NEW GRADE	L.S.	1	\$ 50,000.00	\$ 50,000.00
2	COLD PLANE 3" EXISTING AC SURFACE AND HAUL OFF SITE	S.F.	135,699	\$ 0.35	\$ 47,495.00
3	CLASS 2 AGG. BASE COMPACTED TO 95%	TON	132	\$ 80.00	\$ 10,560.00
4	TYPE "A" HOT MIX ASPHALT	TON	2,700	\$ 99.00	\$ 267,300.00
5	APPLY FOG SEAL ON NEW PAVEMENT	L.S.	1	\$ 10,000.00	\$ 10,000.00
6	INSTALL CASE A CURB RAMP (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	EA.	5	\$ 3,000.00	\$ 15,000.00
7	INSTALL CASE B CURB RAMP (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	EA.	6	\$ 3,000.00	\$ 18,000.00
8	INSTALL CURB & GUTTER - MATCH EXISTING (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	L.F.	350	\$ 35.00	\$ 12,250.00
9	INSTALL 4" THICK SIDEWALK (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	S.F.	1,023	\$ 11.00	\$ 11,253.00
10	INSTALL 8" THICK CONCRETE CROSS GUTTER/APRON/ALLEY APPROACH (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 95%)	S.F.	2,901	\$ 16.00	\$ 46,416.00
11	ADJUST SEWER MANHOLE TO GRADE	EA.	5	\$ 1,900.00	\$ 9,500.00
12	ADJUST UTIL BOX/ MONUMENT TO GRADE	EA.	6	\$ 1,600.00	\$ 9,600.00
13	INSTALL 12" SOLID YELLOW STRIPE (CROSS WALK & ISLAND) - THERMOPLASTIC	L.F.	155	\$ 5.00	\$ 775.00
14	INSTALL 12" LIMIT LINE - THERMOPLASTIC	L.F.	150	\$ 5.00	\$ 750.00
15	INSTALL 6" YELLOW CENTERLINE - THERMOPLASTIC - DETAIL 22	L.F.	450	\$ 3.25	\$ 1,463.00
16	INSTALL 6" YELLOW CENTERLINE - THERMOPLASTIC - DETAIL 2	L.F.	2,300	\$ 1.50	\$ 3,450.00
17	INSTALL WHITE THERMOPLASTIC PAVEMENT MARKINGS	S.F.	132	\$ 25.00	\$ 3,300.00
18	FURNISH AND INSTALL SOLAR-POWERED FLASHING LED STOP SIGN - R1-1 (36"x36")	EA.	3	\$ 3,250.00	\$ 9,750.00
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21	QUALITY CONTROL PROGRAM	L.S.	1	\$ 15,000.00	\$ 15,000.00
22	PREPARE AND IMPLEMENT SWPPP	L.S.	1	\$ 8,000.00	\$ 8,000.00
23	TEMPORARY TRAFFIC CONTROL	L.S.	1	\$ 40,000.00	\$ 40,000.00

UPDATED: 1/18/22

BY: JMP

Construction Subtotal: \$ 592,962.00

Contingency (10%): \$ 59,296.00

Construction Total: \$ 652,258.00

BID OPTION 1

24	INSTALL 6" WHITE BIKE LANE LINE - THERMOPLASTIC - DETAIL 39 & 39A	L.F.	9,228	\$ 1.00	\$ 9,228.00
25	INSTALL BIKE LANE MARKINGS - THERMOPLASTIC	S.F.	168	\$ 15.00	\$ 2,520.00
26	FURNISH AND INSTALL "BIKE LANE" SIGN - R81(CA). 12"x8"	EA.	16	\$ 300.00	\$ 4,800.00
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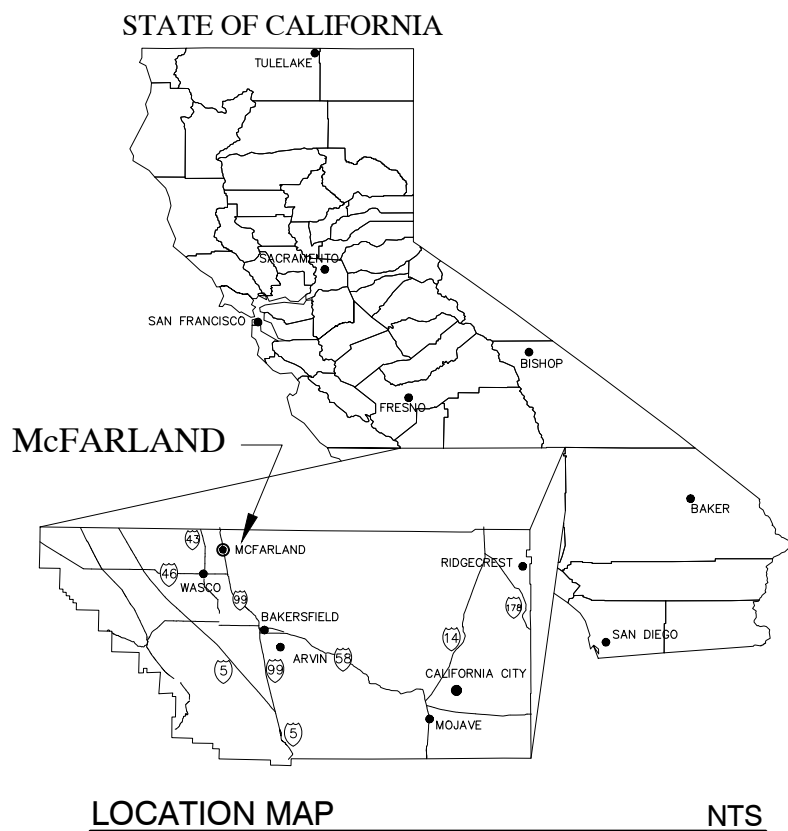
UPDATED: 1/18/22

BY: JMP

Construction Subtotal: \$ 16,948.00

Contingency (10%): \$ 1,695.00

Construction Total: \$ 18,643.00



CITY OF McFARLAND

DEPARTMENT OF PUBLIC WORKS

PROJECT PLANS FOR

DAVIS AVE. RECONSTRUCTION

W. Perkins Ave. to Elmo Hwy.

APPROVED BY: MARIO GONZALEZ
PUBLIC WORKS DIRECTOR

DATE

DESIGNED BY: JUAN M. PANTOJA
RCE 64740

DATE



Know what's below.
Call before you dig.

BEFORE EXCAVATING THE CONTRACTOR
SHALL CONTACT 811 FOR LOCATION OF
UTILITIES. AT LEAST 48 HOURS PRIOR TO
CONSTRUCTION

GENERAL NOTES

1. THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE, AS SPECIFIED IN THE "NOTICE TO BIDDERS".
2. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, FABRICATIONS, EQUIPMENT, APPLIANCES, TRANSPORTATION, AND SERVICES REQUIRED FOR CONSTRUCTION, ERECTION, AND INSTALLATION OF ALL THE VARIOUS WORK INDICATED ON THE DRAWINGS AND/OR SPECIFIED UNDER EACH OF THE SPECIFICATIONS SECTIONS.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THESE DRAWINGS PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN FOR THE DURATION OF THE WORK, AS REQUIRED, ALL LAWFUL OR NECESSARY BARRICADES AND RAILINGS, LIGHTS, WARNING SIGNS, AND SIGNALS, AND SHALL TAKE ALL OTHER PRECAUTIONS AS MAY BE REQUIRED TO SAFEGUARD PERSONS, THE SITE, AND ADJOINING PROPERTY, INCLUDING IMPROVEMENTS THEREON, AGAINST INJURIES AND DAMAGES OF EVERY NATURE WHATSOEVER.
5. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL GIVE THEIR PERSONAL ATTENTION TO THE WORK; BE RESPONSIBLE FOR THE LAYOUT AND CORRECTNESS OF THEIR WORK AND COOPERATE WITH EACH OF THE VARIOUS TRADES TO OBTAIN A NEAT FINISHED AND WORKMANLIKE JOB.
6. EXISTING A.C., CONCRETE AND EXCESS DIRT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AT A SITE ACCEPTABLE TO THE CITY AND/OR KERN COUNTY HAZ/MAT.
7. 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 TO BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE CITY, ITS OFFICERS, OFFICIALS, EMPLOYEES, CONSULTANTS AND VOLUNTEERS 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 THE CITY, ITS OFFICERS, OFFICIALS, EMPLOYEES, CONSULTANTS AND VOLUNTEERS.
8. THE CONTRACTOR SHALL NOT BEGIN EXCAVATION UNTIL ALL EXISTING UNDERGROUND FACILITIES WITHIN THE AREA TO BE EXCAVATED HAVE BEEN MARKED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL POTHOLE AND VERIFY THE DEPTH OF ALL UTILITIES WITHIN THE CONSTRUCTION ZONE BEFORE TRENCHING. AT LEAST (2) TWO DAYS PRIOR TO THE PERFORMING ANY EXCAVATION WORK, THE FOLLOWING SHALL BE COMPLIED WITH: THE CONTRACTOR SHALL CALL THE UNDERGROUND SERVICE ALERT AT 811. UNDERGROUND SERVICE ALERT SHALL COORDINATE WITH UTILITY PROVIDERS IN THE AREA TO MARK THE LOCATIONS OF ANY BURIED UTILITY-OWNED LINES.
9. THE CITY WILL PROVIDE CONSTRUCTION SURVEY FOR CONCRETE WORK ONLY.
10. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. NO CERTIFICATION IS MADE AS TO ACCURACY OR THOROUGHNESS OF THESE RECORDS. APPROVAL OF THIS PLAN BY THE CITY DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF LOCATION OF THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE WITHIN THE LIMITS OF THE PROJECT.
11. DO NOT SCALE DRAWINGS. IF UNABLE TO LOCATE DIMENSIONS FOR ANY ITEM OF WORK, CONSULT ENGINEER FOR DIRECTION BEFORE PROCEEDING.
12. DETAILS SHOWN ON CONSTRUCTION DOCUMENTS SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS WHETHER SPECIFICALLY REFERENCED AT EACH LOCATION OR NOT.
13. CONTRACTOR SHALL REPAIR ALL CONSTRUCTION DAMAGE NOT LIMITED TO GRASS, PAVED AREAS AND OTHER ITEMS TO PRECONSTRUCTION CONDITION FROM DAMAGE DURING CONSTRUCTION. PROVIDE PHOTOGRAPHS PRIOR TO STARTING WORK TO PROJECT INSPECTOR
14. CHANGES TO THE APPROVED DRAWINGS SHALL BE MADE BY AN ADDENDA OR A CHANGE ORDER SIGNED BY OWNER, AND APPROVED BY PUBLIC WORKS / ENGINEERING OFFICIALS.
15. ALL EARTHWORK TO BE DONE PER REQUIREMENTS OF THE CITY STANDARDS AND GEOTECHNICAL REPORT BY BSK ASSOCIATES #G21-029-11B, DATED 05/28/21.
16. DUST AND DEBRIS CONTROL MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT. -DISTRICT REGULATION VIII - FUGITIVE DUST RULES.
17. THE PROJECT SHALL COMPLY WITH STANDARD DUST SUPPRESSION METHODS. DUST GENERATED ONSITE SHALL BE CONTROLLED BY WATERING ALL EXPOSED AREAS AT LEAST TWICE DAILY DURING EXCAVATION, AND ESPECIALLY DURING CLEARING AND GRADING OPERATIONS. ADDITIONAL WATERING ON WINDY OR HOT DAYS IS REQUIRED TO REDUCE DUST EMISSIONS. COVER ANY STOCKPILES OF SAND, SOIL OR SIMILAR MATERIALS WITH A TARP. COVER TRUCKS HAULING DIRT OR DEBRIS TO AVOID SPILLAGE. IN AREAS WHERE CONSTRUCTION IS DELAYED FOR AN EXTENDED PERIOD OF TIME, GROUND SHALL BE RESURFACED OR COVERED TO MINIMIZE THE GENERATION OF AIRBORNE DUST EMISSIONS.
18. TO REDUCE TEMPORARY NOISE IMPACTS, CONSTRUCTION ACTIVITIES SHALL OCCUR DURING THE DAY-TIME HOURS ONLY (7:00AM TO 3:30PM MONDAY THROUGH FRIDAY).
19. IF ARCHAEOLOGICAL, PALEONTOLOGICAL, HISTORICAL, OR CULTURAL RESOURCES ARE DISCOVERED DURING CONSTRUCTION, ALL WORK SHALL HALT IN THE AREA OF THE FIND AND THE CITY SHALL PROVIDE A QUALIFIED CULTURAL RESOURCES SPECIALIST TO EVALUATE THE FINDINGS AND MAKE APPROPRIATE MITIGATION RECOMMENDATIONS TO ADDRESS THE FIND. THE RECOMMENDATIONS SHALL BE INCORPORATED INTO THE PROJECT AGREEMENT, AS PROJECT MODIFICATIONS, AND SHALL BE INCLUDED IN CONSTRUCTION SPECIFICATIONS AND COMPLIED WITH AT ALL TIMES BY THE CONTRACTOR.



VICINITY MAP NTS

SHEET INDEX

NO.	TITLE
01	COVER SHEET
02	PLAN & PROFILE STA 0+00 TO STA 10+00
03	PLAN & PROFILE STA 10+00 TO STA 20+00
04	PLAN & PROFILE STA 20+00 TO STA 26+35
05	ADA RAMPS
06	ADA RAMPS
07	ADA RAMPS
08	ADA RAMP
09	ADA RAMPS
10	ADA RAMP
11	ADA RAMP
12	STRIPING PLAN
13	DETAILS 1
14	DETAILS 2

CONTACT INFORMATION

BHT ENGINEERING, INC.	(661) 558-4641
McFARLAND POLICE DEPT.	(661) 792-2121
PUBLIC WORKS DEPT. (STREET, WATER, SEWER) MARIO GONZALES	(661) 792-3091

CONVENTIONAL SYMBOLS

---	RIGHT OF WAY LINE	---	FENCE & GATE
---	EXISTING EDGE OF PAVEMENT	---	WALL
---	TREE (ALL TYPES)	---	PULLBOX
---	SIGN		

UTILITY SYMBOLS

---	WATER LINE EXISTING	---	WATER VALVE
---	GAS LINE EXISTING	---	FIRE HYDRANT
---	SEWER LINE EXISTING	---	MANHOLE
---	STORMDRAIN LINE EXISTING	---	STREET LIGHT
---	BURIED FIBER OPTIC	---	POWER POLE
---	BURIED TELEPHONE CABLE		
---	BURIED POWER CABLE		
---	BURIED TV CABLE		



BHT
ENGINEERING, INC.
218 S. H St., Ste. 201
BAKERSFIELD, CA. 93304
(661) 558-4641



These drawings are instruments of service and are the property of BHT Engineering, Inc. All information on the drawings are for the use on the specified project and shall not be used otherwise without the expressed written permission of BHT Engineering, Inc. Written dimensions on these drawings shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job and this office shall be notified of any variations from the dimensions and conditions shown by these drawings. Shop details shall be submitted to this office for approval before proceeding with fabrication.
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CITY OF MCFARLAND
KERN COUNTY, CA
DEPARTMENT OF
PUBLIC WORKS

DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.
100% REVIEW SET -NOT FOR CONSTRUCTION-
COVER SHEET

DATE: 12/03/21
DRAWN: MPH/JMP
CK'D BY: ---
DATE CK'D: ---
REV:

Job No.

20601

SHEET

01

OF 14 SHEETS



These drawings are instruments of service and are the property of BHT Engineering, Inc. All information on the drawings are for the use on the specified project and shall not be used otherwise without the expressed written permission of BHT Engineering, Inc. Written dimensions on these drawings shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job and this office shall be notified of any variations from the dimensions and conditions shown by these drawings. Shop details shall be submitted to this office for approval before proceeding with fabrication.
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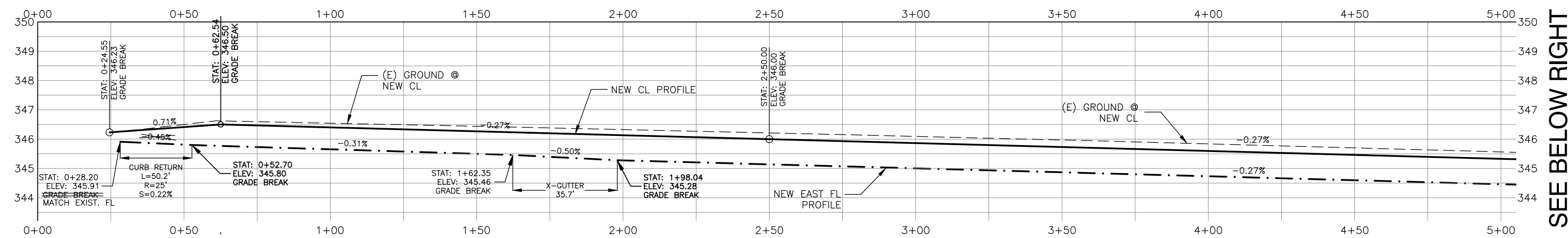
CITY OF MCFARLAND
KERN COUNTY, CA
DEPARTMENT OF
PUBLIC WORKS

DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.
100% REVIEW SET -NOT FOR CONSTRUCTION-
PLAN & PROFILE STA 0+00 TO STA 10+00

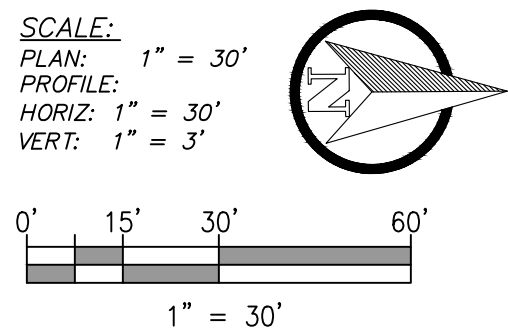
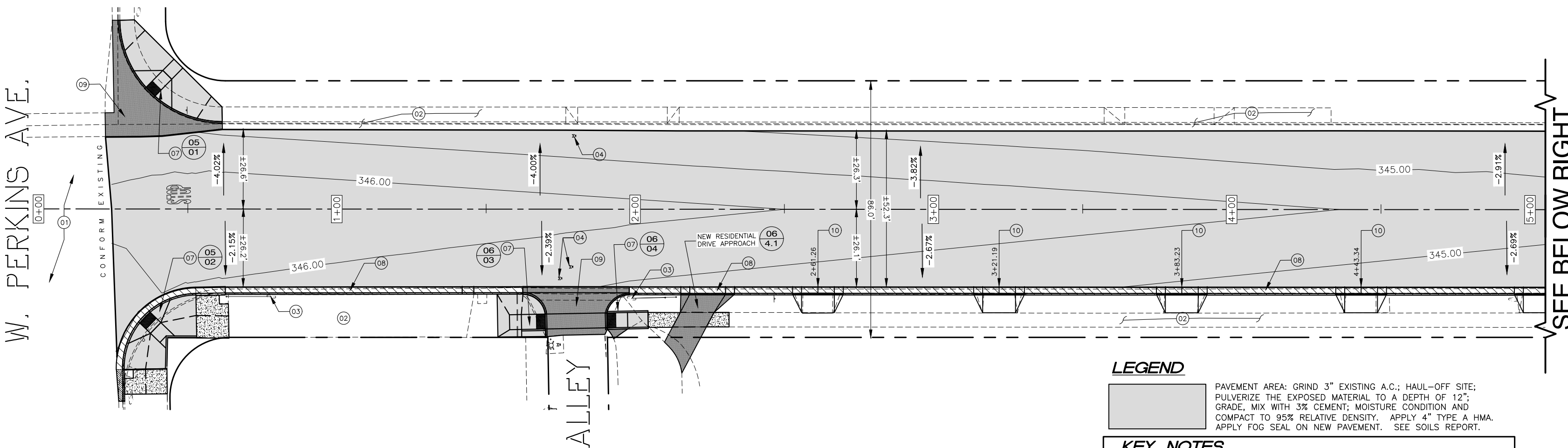
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DRAWN: MPH/JMP
CK'D BY: ---
DATE CK'D: ---
REV:

Job No.
20601

SHEET
02
OF 14 SHEETS



SEE BELOW RIGHT



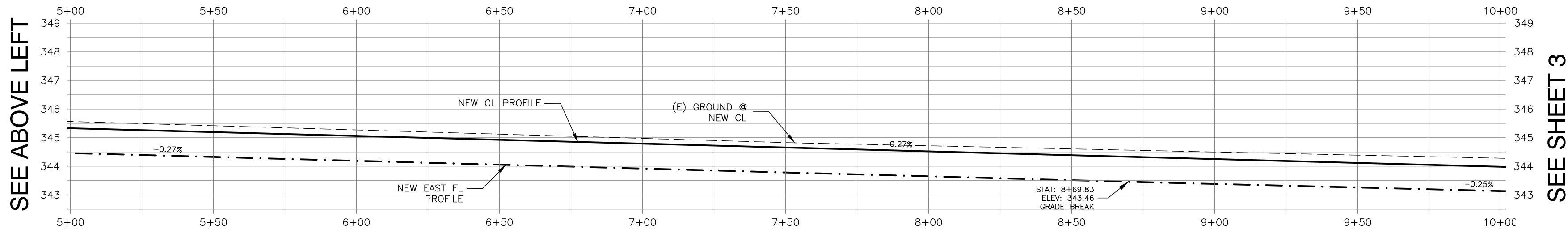
DAVIS AVENUE

LEGEND

PAVEMENT AREA: GRIND 3" EXISTING A.C.; HAUL-OFF SITE; PULVERIZE THE EXPOSED MATERIAL TO A DEPTH OF 12"; GRADE. MIX WITH 3% CEMENT; MOISTURE CONDITION AND COMPACT TO 95% RELATIVE DENSITY. APPLY 4" TYPE A HMA. APPLY FOG SEAL ON NEW PAVEMENT. SEE SOILS REPORT.

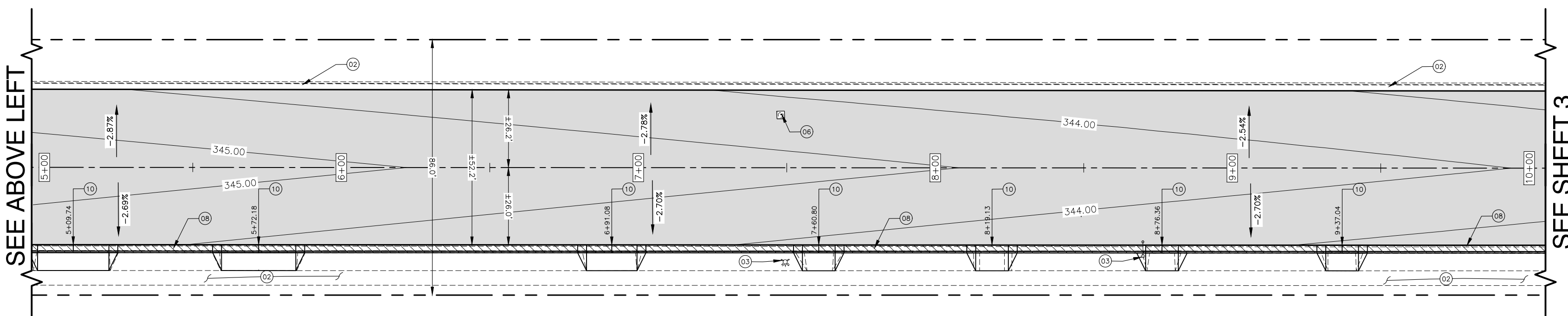
KEY NOTES

- 01 EXISTING AC PAVEMENT TO REMAIN/PROTECT
- 02 EXISTING CONCRETE CURB/GUTTER/SIDEWALK TO REMAIN/PROTECT
- 03 EXISTING FIRE HYDRANT/SIGN/POLE TO REMAIN/PROTECT
- 04 EXISTING WATER VALVE ADJUST TO GRADE
- 05 EXISTING MONUMENT TO ADJUST TO GRADE
- 06 EXISTING MANHOLE TO ADJUST TO GRADE
- 07 REMOVE AND REPLACE ADA CURB RAMP
- 08 REMOVE AND REPLACE CURB & GUTTER - MATCH EXISTING CURB HEIGHT
- 09 REMOVE AND REPLACE CROSS GUTTER/APPRON - 8" THICK REINFORCE CONCRETE
- 10 REMOVE AND REPLACE RESIDENTIAL DRIVE APPROACH - 6" THICK CONCRETE



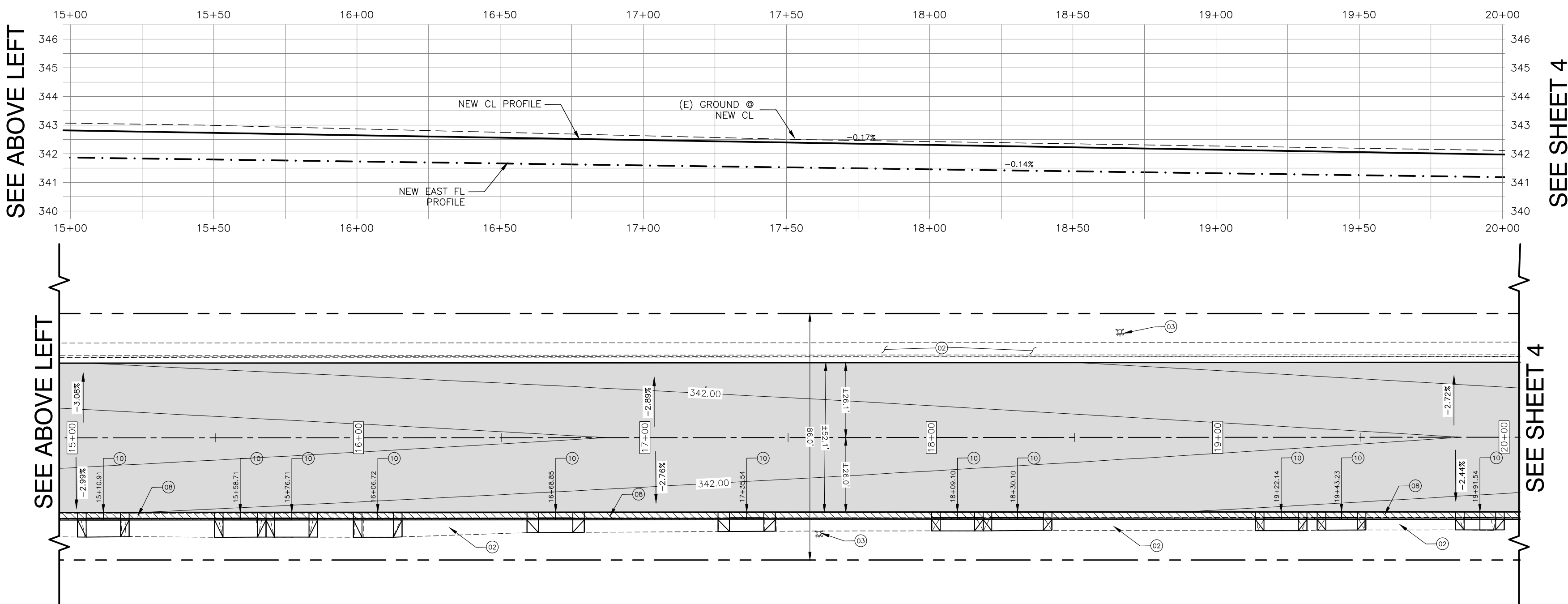
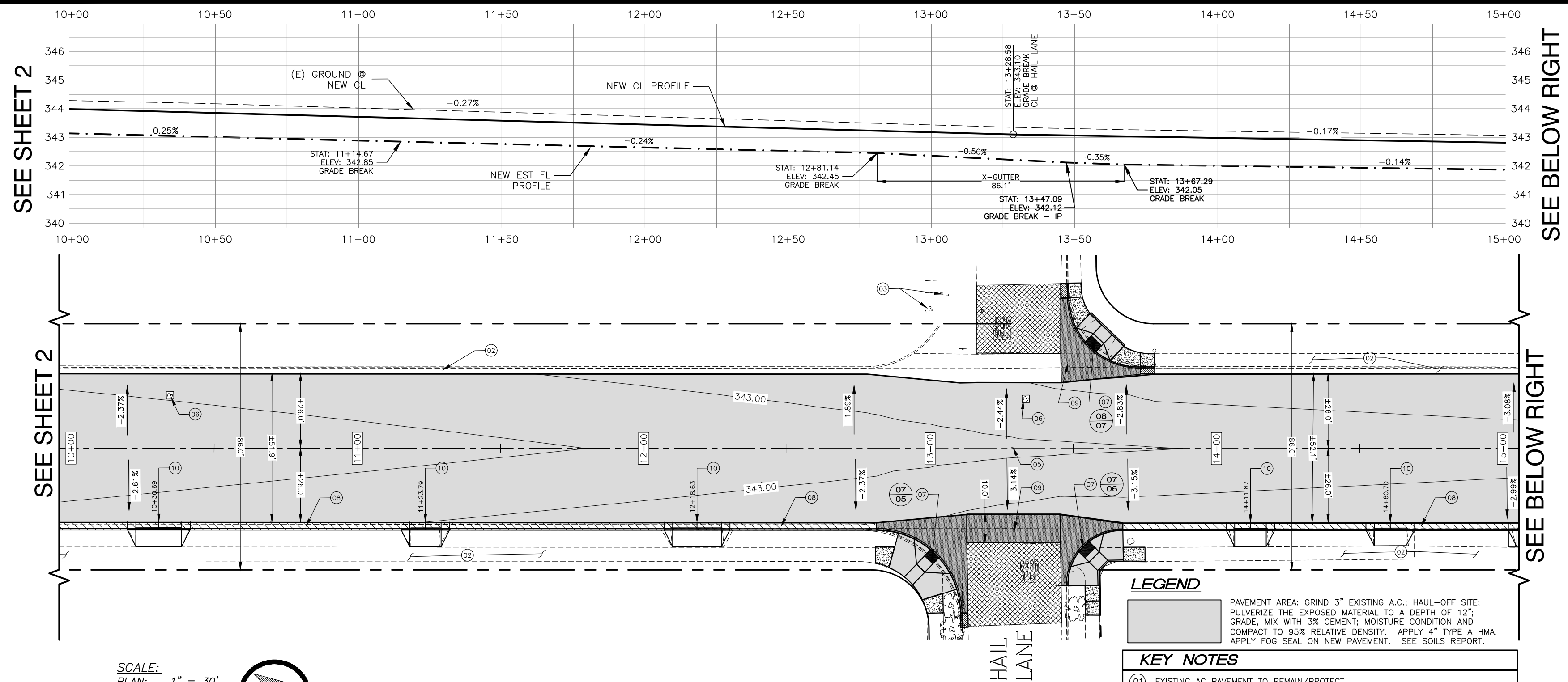
SEE ABOVE LEFT

SEE SHEET 3

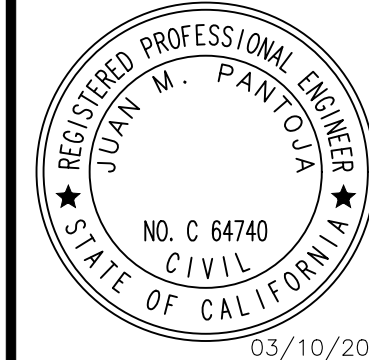


SEE ABOVE LEFT

SEE SHEET 3



BHT
ENGINEERING, INC.
218 S. H St., Ste. 201
BAKERSFIELD, CA. 93304
~
(661) 558-4641



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DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.

100% REVIEW SET -NOT FOR CONSTRUCTION-
PLAN & PROFILE STA 10+00 TO STA 20+00

DATE: 12/03/21
DRAWN: MPH/JMP
CK'D BY: ----
DATE CK'D: ----
REV:

Job No.

20601

SHEET

03

OF 14 SHEETS



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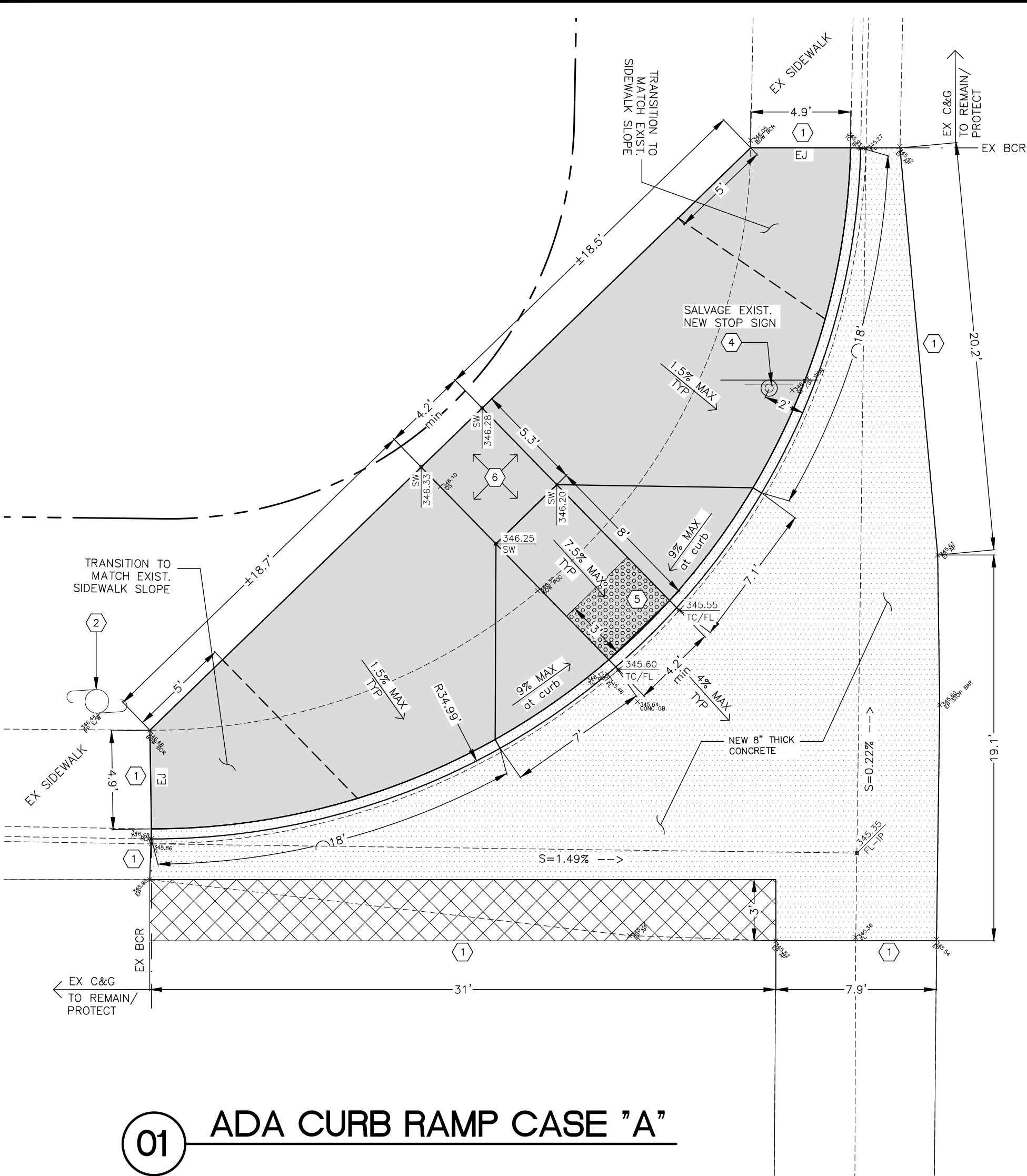
CITY OF MCFARLAND
KERN COUNTY, CA
DEPARTMENT OF
PUBLIC WORKS

DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.
100% REVIEW SET -NOT FOR CONSTRUCTION-
ADA RAMPS #1 & #2

DATE: 12/03/21
DRAWN: MPH/JMP
CK'D BY: ---
DATE CK'D: ---
REV:

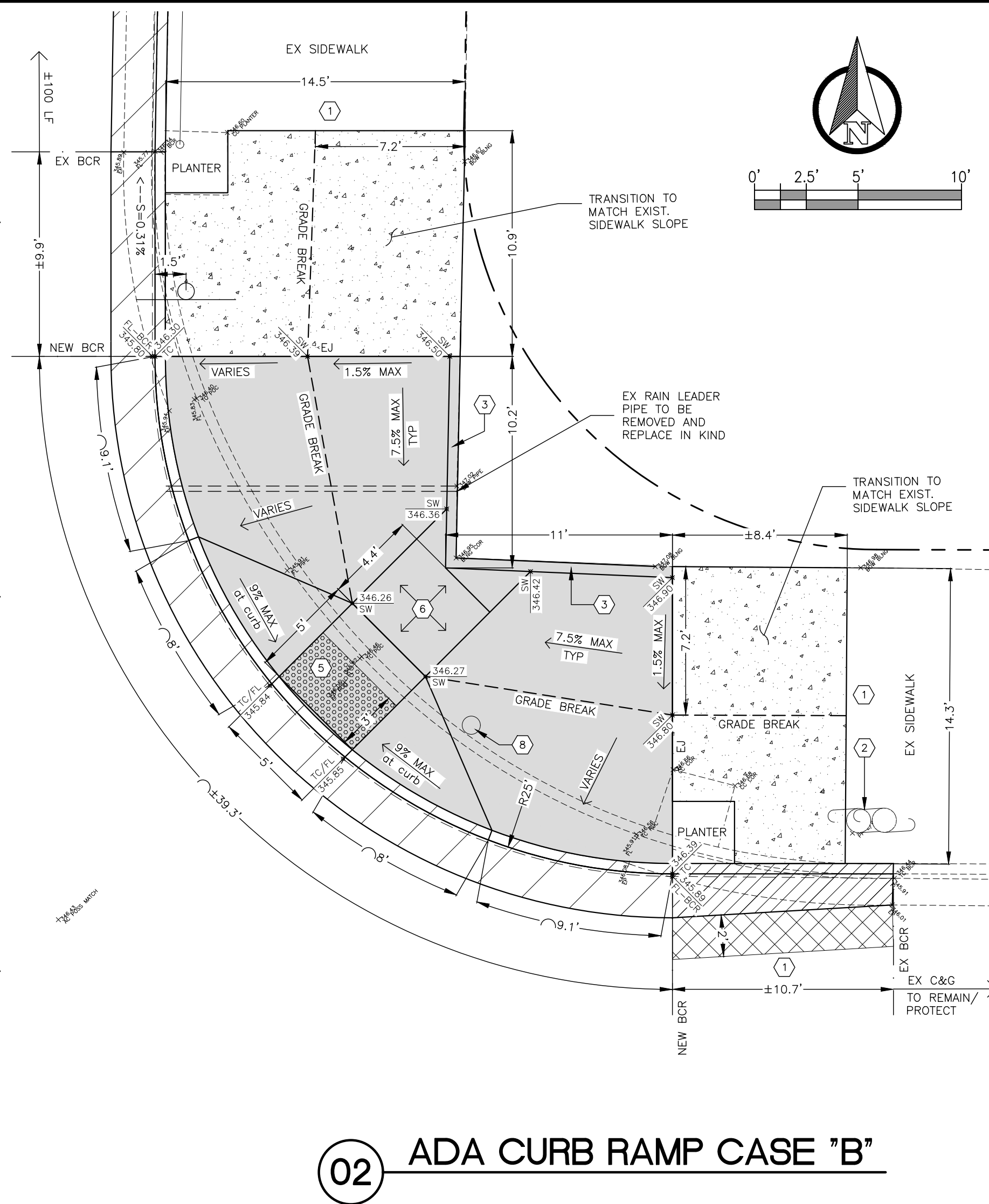
Job No.
20601

SHEET
05
OF 14 SHEETS

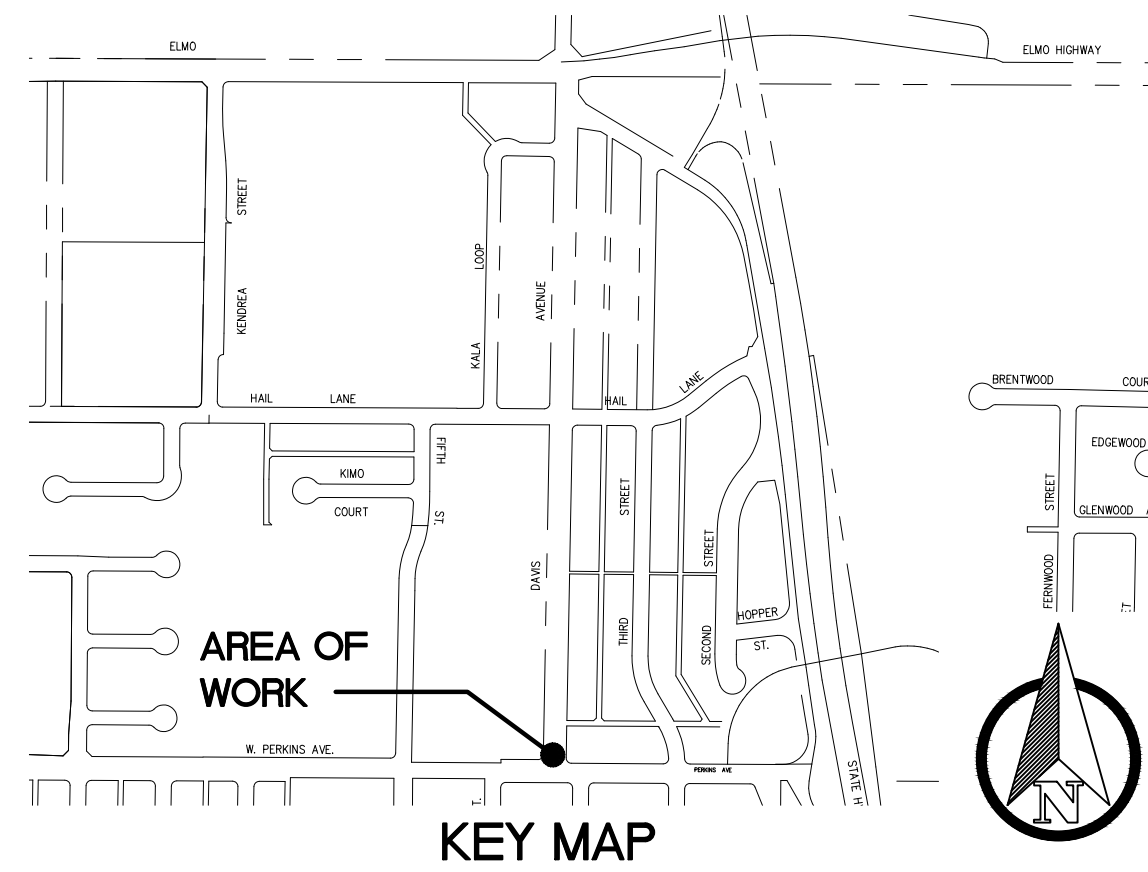


01 ADA CURB RAMP CASE "A"

W PERKINS AVE



02 ADA CURB RAMP CASE "B"



CONSTRUCTION KEY NOTES

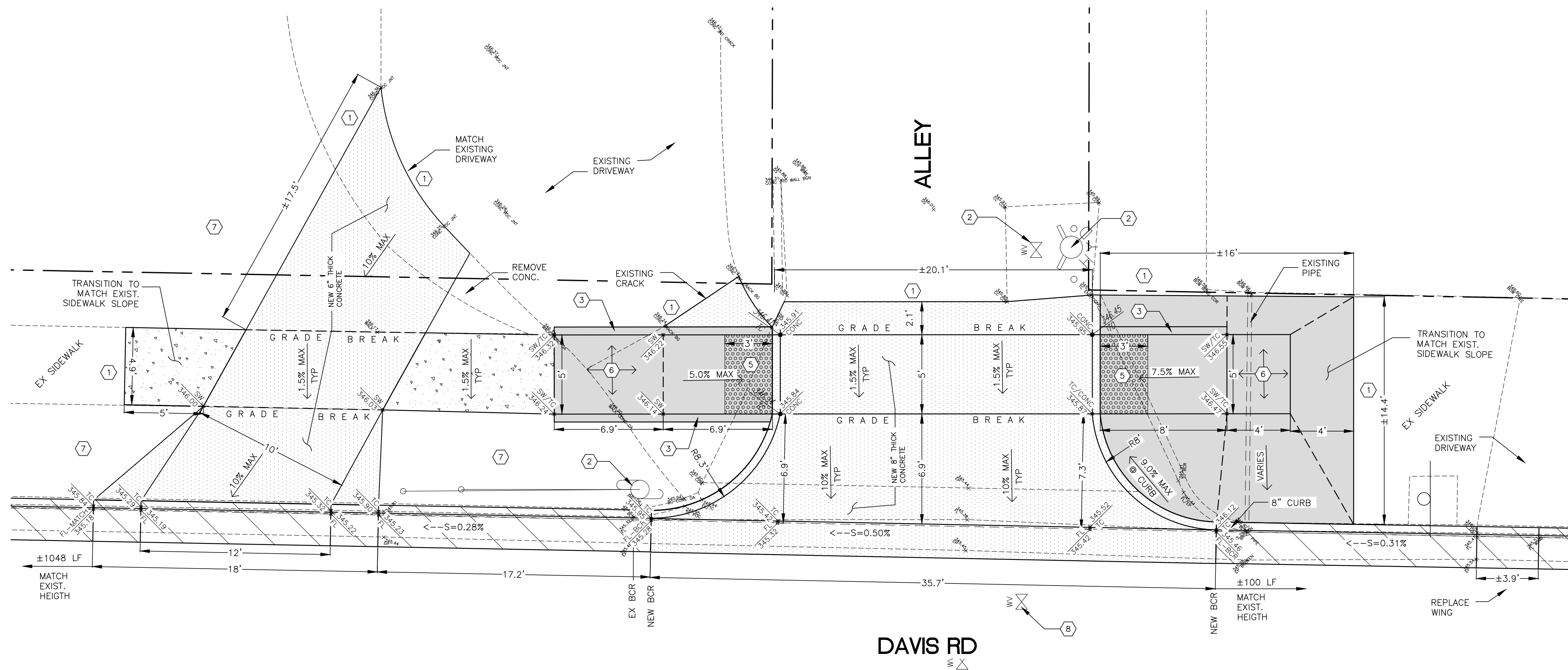
- SAWCUT & MATCH EXISTING AC/C&G/SIDEWALK/V-GUTTER.
- EXISTING FENCE/CMU WALL/POWER POLE/STREET LIGHT/CONC CURB/UTIL BOX/ FH/BOLLARDS TO REMAIN/PROTECT.
- INSTALL RETAINING CURB. W=6". HEIGHT AS NECESSARY TO MATCH EXISTING/NEW FIELD CONDITIONS.
- SALVAGE AND/OR RELOCATE EXT. SIGN AS DIRECTED BY FIELD ENGINEER. PROVIDE NEW STEEL POLE/FOOTING SEE DETAIL ON SHEET 14.
- INSTALL CAST-IN-PLACE, RAISED TRUNCATED DOME (IN-LINE PATTERN), DETECTABLE WARNING SURFACE, BY ARMOR-TILE (WWW.ARMOR-TILE.COM), OR BY ADA SOLUTIONS, INC. (WWW.ADATILE.COM), OR SAFETY STEP TD (WWW.SAFETYSTEPTD.COM), OR APPROVED EQUAL. COLOR: YELLOW CONFORMING TO FEDERAL COLOR NO. 33538.
- 1.5% MAX SLOPE IN ANY DIRECTION AT LANDINGS
- EXISTING LANDSCAPING/IRRIG. SYSTEM TO REMAIN/PROTECT--MODIFY/REPAIR IN KIND AS REQUIRED TO ALLOW FOR NEW WORK--SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- EXISTING WATER/UTIL BOX TO BE ADJUST TO NEW GRADES

LEGEND

AC	ASPHALT CONCRETE		DETECTABLE WARNING PATTERN: IN-LINE
BC	BACK OF CURB		NEW CONCRETE: CURB RAMP 4" THICK
BCR	BEGIN CURB RETURN		NEW 4" THICK CONCRETE SIDEWALK.
CLF	CHAIN LINK FENCE		NEW 8" THICK CONCRETE REINFORCED APRON/CURB, X-GUTTER
C&G	CURB AND GUTTER		NEW CONCRETE: CURB & GUTTER
CJ	CONTROL JOINT		AC PAVEMENT TIE-IN / STREET RECONSTRUCTION
EP	EDGE OF PAVEMENT		
ECR	END CURB RETURN		
EJ	EXPANSION JOINT		
EX	EXISTING		
FL	FLOW LINE		
FV	FIELD VERIFY		
MAX	MAXIMUM		
MIN	MINIMUM		
R/W	RIGHT OF WAY		
SW	SIDEWALK		
TC	TOP OF CURB		

GENERAL NOTES

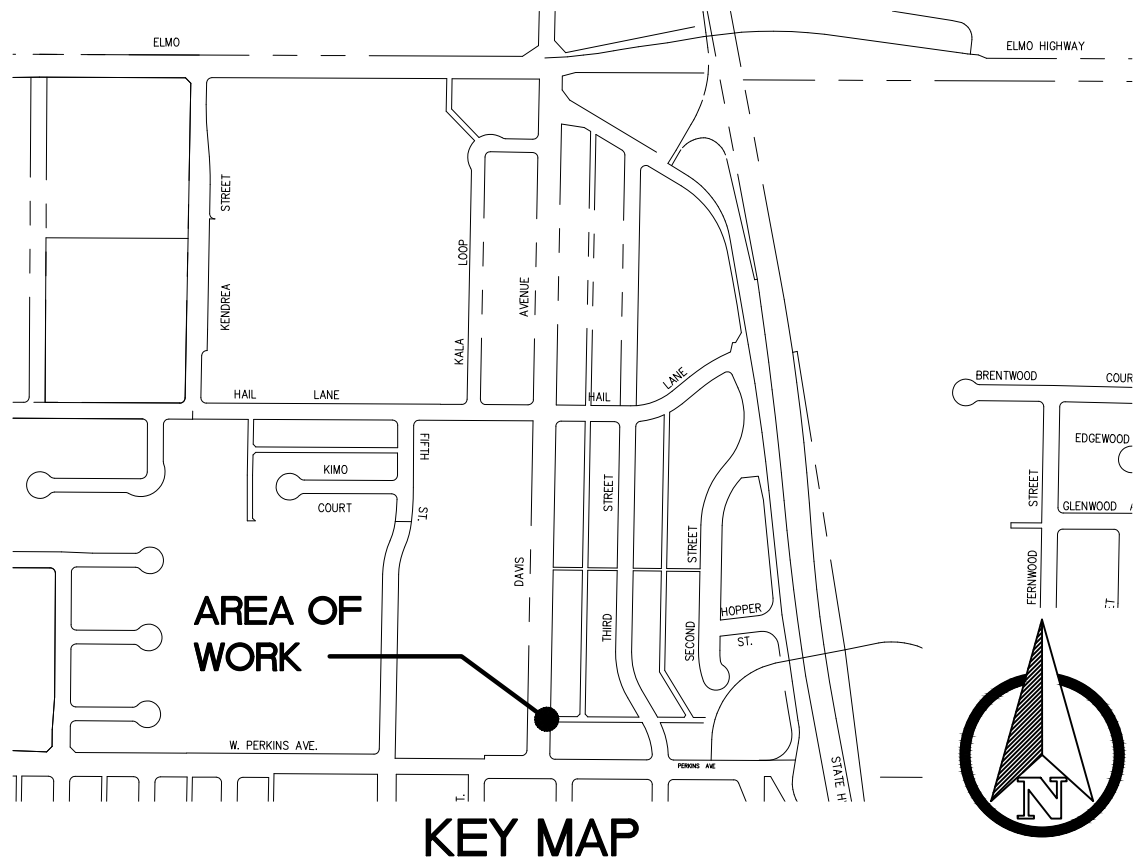
- SIDEWALK AND RAMP THICKNESS SHALL BE 4"-MIN.
- PORTLAND CEMENT CONCRETE PAVING & CONCRETE FINISHES: PORTLAND CEMENT CONCRETE PAVING SHALL HAVE A MEDIUM BROOM FINISH ON ALL SURFACES LESS THAN 6% AND A HEAVY BROOM FINISH ON ALL SURFACES GREATER THAN 6%.
- CONTRACTOR SHALL REPLACE IN KIND ANY LANDSCAPING, IRRIGATION, CONCRETE, FENCING, ETC. THAT IS REMOVED OR DAMAGED DURING CONSTRUCTION. ALSO, CONTRACTOR SHALL SET TO GRADE EXISTING UTILITY BOXES, WHETHER OR NOT SHOWN ON THE PLANS. COMPENSATION SHALL BE INCLUDED IN THE CONTRACT PRICE AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.
- THE COST FOR PAVEMENT TIE-IN SHALL BE INCLUDED IN THE VARIOUS ITEMS OF WORK, AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.



4.1 RESIDENTIAL
DRIVE APPROACH

04 ADA CURB RAMP
CASE "F"

03 ADA CURB RAMP
CASE "G"



CONSTRUCTION KEY NOTES

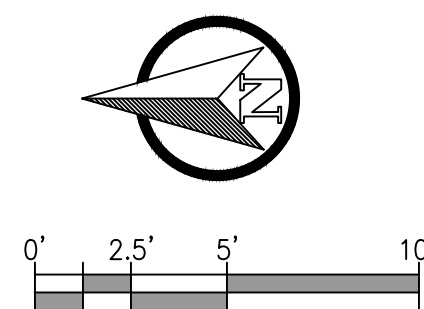
- 1 SAWCUT & MATCH EXISTING AC/C&G/SIDEWALK/V-GUTTER.
- 2 EXISTING FENCE/CMU WALL/POWER POLE/STREET LIGHT/CONC CURB/UTIL BOX/ FH/BOLLARDS TO REMAIN/PROTECT.
- 3 INSTALL RETAINING CURB. W=6". HEIGHT AS NECESSARY TO MATCH EXISTING/NEW FIELD CONDITIONS.
- 4 SALVAGE AND/OR RELOCATE EXT. SIGN AS DIRECTED BY FIELD ENGINEER. PROVIDE NEW STEEL POLE/FOOTING SEE DETAIL ON SHEET 14.
- 5 INSTALL CAST-IN-PLACE, RAISED TRUNCATED DOME (IN-LINE PATTERN), DETECTABLE WARNING SURFACE, BY ARMOR-TILE (WWW.ARMOR-TILE.COM), OR BY ADA SOLUTIONS, INC. (WWW.ADATILE.COM), OR SAFETY STEP TD (WWW.SAFETYSTEPTD.COM), OR APPROVED EQUAL. COLOR: YELLOW CONFORMING TO FEDERAL COLOR NO. 33538.
- 6 1.5% MAX SLOPE IN ANY DIRECTION AT LANDINGS
- 7 EXISTING LANDSCAPING/IRRIG. SYSTEM TO REMAIN/PROTECT-MODIFY/REPAIR IN KIND AS REQUIRED TO ALLOW FOR NEW WORK-SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- 8 EXISTING WATER/UTIL BOX TO BE ADJUST TO NEW GRADES

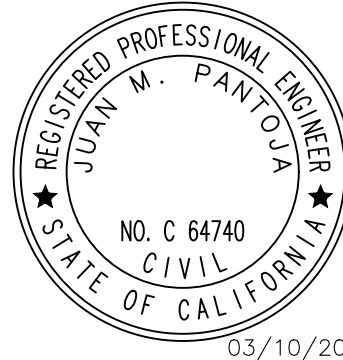
LEGEND

AC	ASPHALT CONCRETE		DETECTABLE WARNING PATTERN: IN-LINE
BC	BACK OF CURB		NEW CONCRETE: CURB RAMP 4" THICK
BCR	BEGIN CURB RETURN		NEW 4" THICK CONCRETE SIDEWALK.
CLF	CHAIN LINK FENCE		NEW 8" THICK CONCRETE REINFORCED APRON/CURB, X-GUTTER
C&G	CURB AND GUTTER		NEW CONCRETE: CURB & GUTTER
CJ	CONTROL JOINT		AC PAVEMENT TIE-IN / STREET RECONSTRUCTION
EP	EDGE OF PAVEMENT		
ECR	END CURB RETURN		
EJ	EXPANSION JOINT		
EX	EXISTING		
FL	FLOW LINE		
FV	FIELD VERIFY		
MAX	MAXIMUM		
MIN	MINIMUM		
R/W	RIGHT OF WAY		
SW	SIDEWALK		
TC	TOP OF CURB		

GENERAL NOTES

1. SIDEWALK AND RAMP THICKNESS SHALL BE 4"-MIN.
2. PORTLAND CEMENT CONCRETE PAVING & CONCRETE FINISHES: PORTLAND CEMENT CONCRETE PAVING SHALL HAVE A MEDIUM BROOM FINISH ON ALL SURFACES LESS THAN 6% AND A HEAVY BROOM FINISH ON ALL SURFACES GREATER THAN 6%.
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4. THE COST FOR PAVEMENT TIE-IN SHALL BE INCLUDED IN THE VARIOUS ITEMS OF WORK, AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.



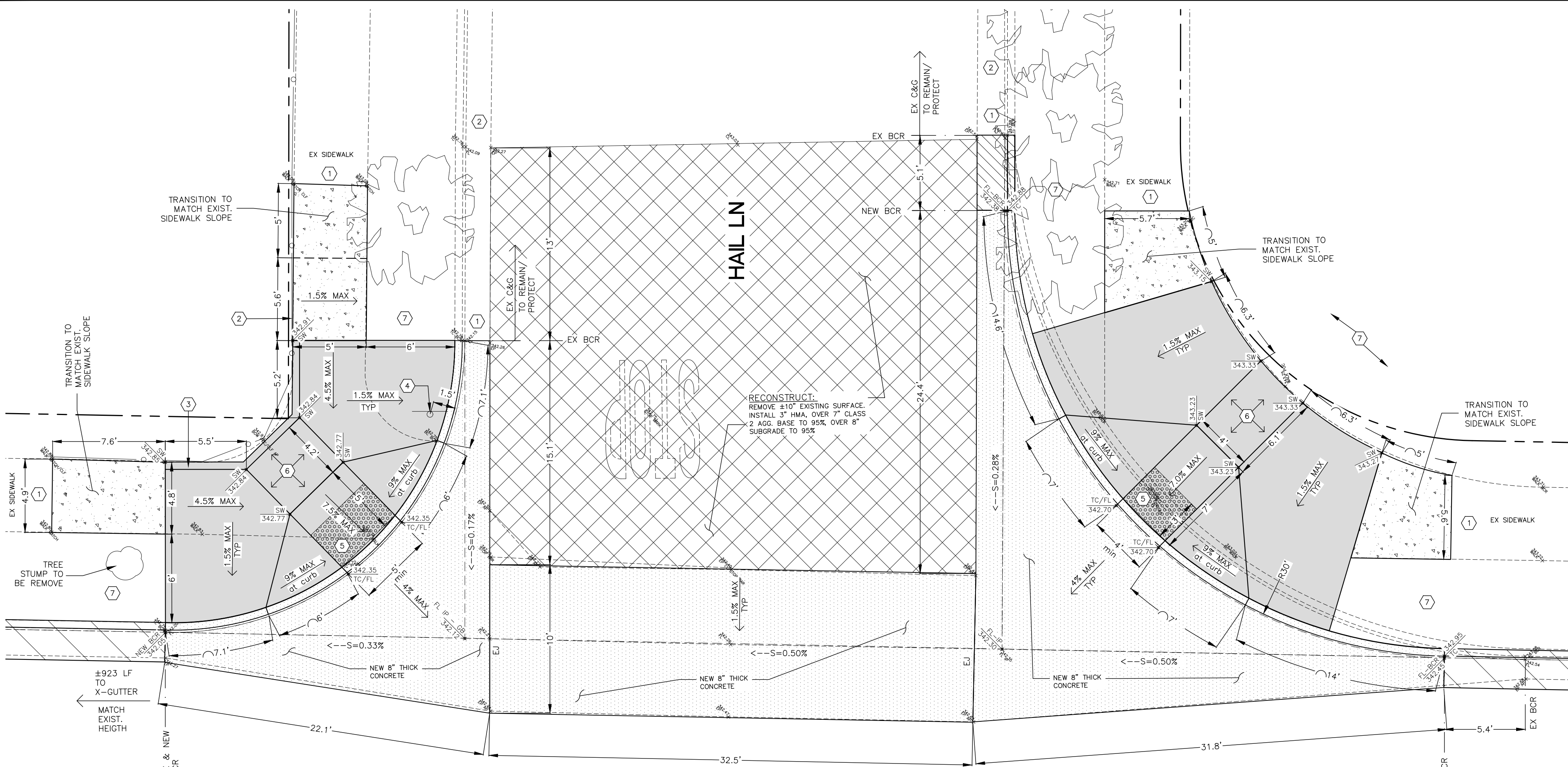


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DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.
100% REVIEW SET -NOT FOR CONSTRUCTION-
ADA RAMPS #5 & #6

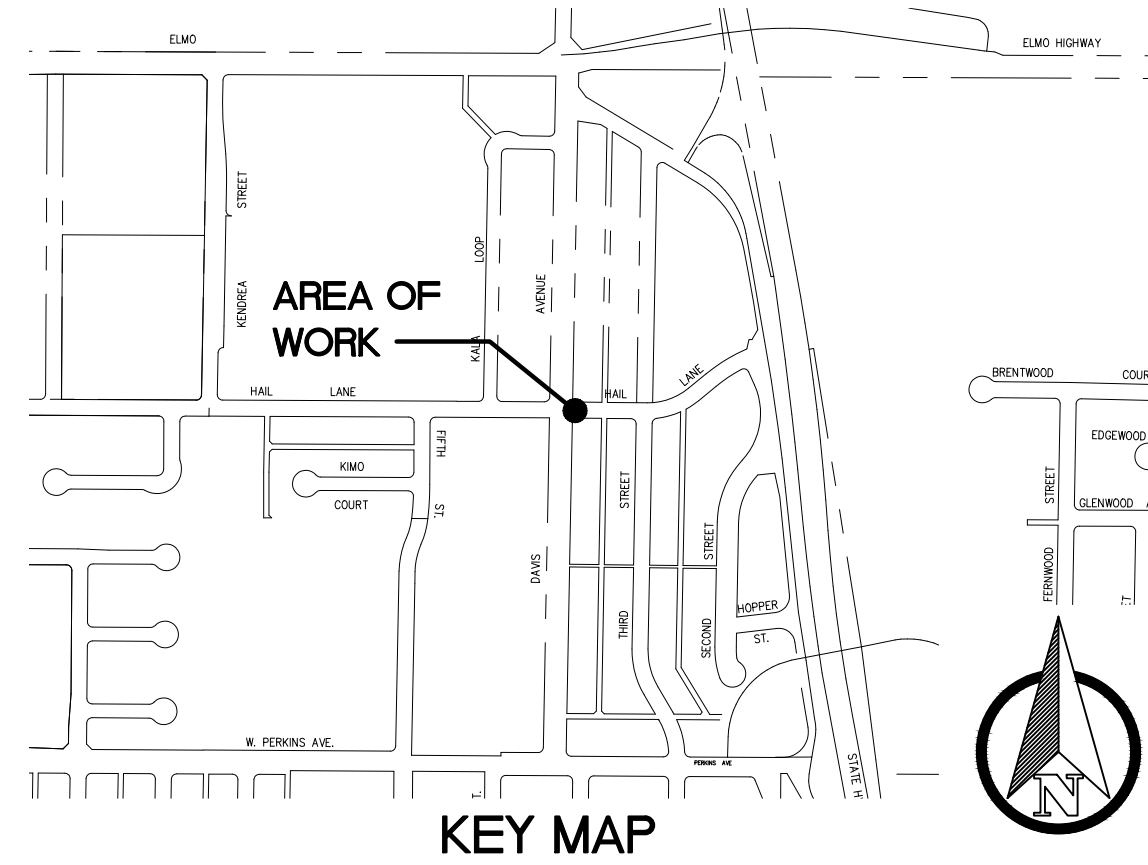
DATE: 12/03/21
DRAWN: MPH/JMP
CK'D BY: ---
DATE CK'D: ---
REV:
Job No.
20601
SHEET
07
OF 14 SHEETS



06 ADA CURB RAMP CASE "B"

DAVIS RD

05 ADA CURB RAMP CASE "A"



CONSTRUCTION KEY NOTES

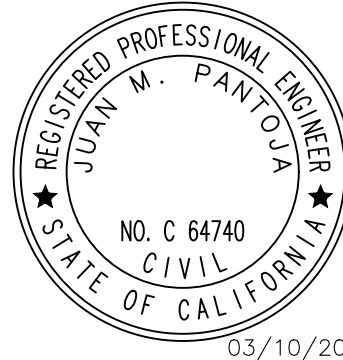
- SAWCUT & MATCH EXISTING AC/C&G/SIDEWALK/V-GUTTER.
- EXISTING FENCE/CMU WALL/POWER POLE/STREET LIGHT/CONC CURB/UTIL BOX/ FH/BOLLARDS TO REMAIN/PROTECT.
- INSTALL RETAINING CURB. W=6". HEIGHT AS NECESSARY TO MATCH EXISTING/NEW FIELD CONDITIONS.
- SALVAGE AND/OR RELOCATE EXT. SIGN AS DIRECTED BY FIELD ENGINEER. PROVIDE NEW STEEL POLE/FOOTING SEE DETAIL ON SHEET 14.
- INSTALL CAST-IN-PLACE, RAISED TRUNCATED DOME (IN-LINE PATTERN), DETECTABLE WARNING SURFACE, BY ARMOR-TILE (WWW.ARMOR-TILE.COM), OR BY ADA SOLUTIONS, INC. (WWW.ADATILE.COM), OR SAFETY STEP TD (WWW.SAFETYSTEPTD.COM), OR APPROVED EQUAL. COLOR: YELLOW CONFORMING TO FEDERAL COLOR NO. 33538.
- 1.5% MAX SLOPE IN ANY DIRECTION AT LANDINGS
- EXISTING LANDSCAPING/IRRIG. SYSTEM TO REMAIN/PROTECT--MODIFY/REPAIR IN KIND AS REQUIRED TO ALLOW FOR NEW WORK--SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- EXISTING WATER/UTIL BOX TO BE ADJUST TO NEW GRADES

LEGEND

AC	ASPHALT CONCRETE		DETECTABLE WARNING PATTERN: IN-LINE
BC	BACK OF CURB		
BCR	BEGIN CURB RETURN		
CLF	CHAIN LINK FENCE		
C&G	CURB AND GUTTER		
CJ	CONTROL JOINT		
EP	EDGE OF PAVEMENT		
ECR	END CURB RETURN		
EJ	EXPANSION JOINT		
EX	EXISTING		
FL	FLOW LINE		
FV	FIELD VERIFY		
MAX	MAXIMUM		
MIN	MINIMUM		
R/W	RIGHT OF WAY		
SW	SIDEWALK		
TC	TOP OF CURB		

GENERAL NOTES

- SIDEWALK AND RAMP THICKNESS SHALL BE 4"-MIN.
- PORTLAND CEMENT CONCRETE PAVING & CONCRETE FINISHES: PORTLAND CEMENT CONCRETE PAVING SHALL HAVE A MEDIUM BROOM FINISH ON ALL SURFACES LESS THAN 6% AND A HEAVY BROOM FINISH ON ALL SURFACES GREATER THAN 6%.
- CONTRACTOR SHALL REPLACE IN KIND ANY LANDSCAPING, IRRIGATION, CONCRETE, FENCING, ETC. THAT IS REMOVED OR DAMAGED DURING CONSTRUCTION. ALSO, CONTRACTOR SHALL SET TO GRADE EXISTING UTILITY BOXES, WHETHER OR NOT SHOWN ON THE PLANS. COMPENSATION SHALL BE INCLUDED IN THE CONTRACT PRICE AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.
- THE COST FOR PAVEMENT TIE-IN SHALL BE INCLUDED IN THE VARIOUS ITEMS OF WORK, AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.



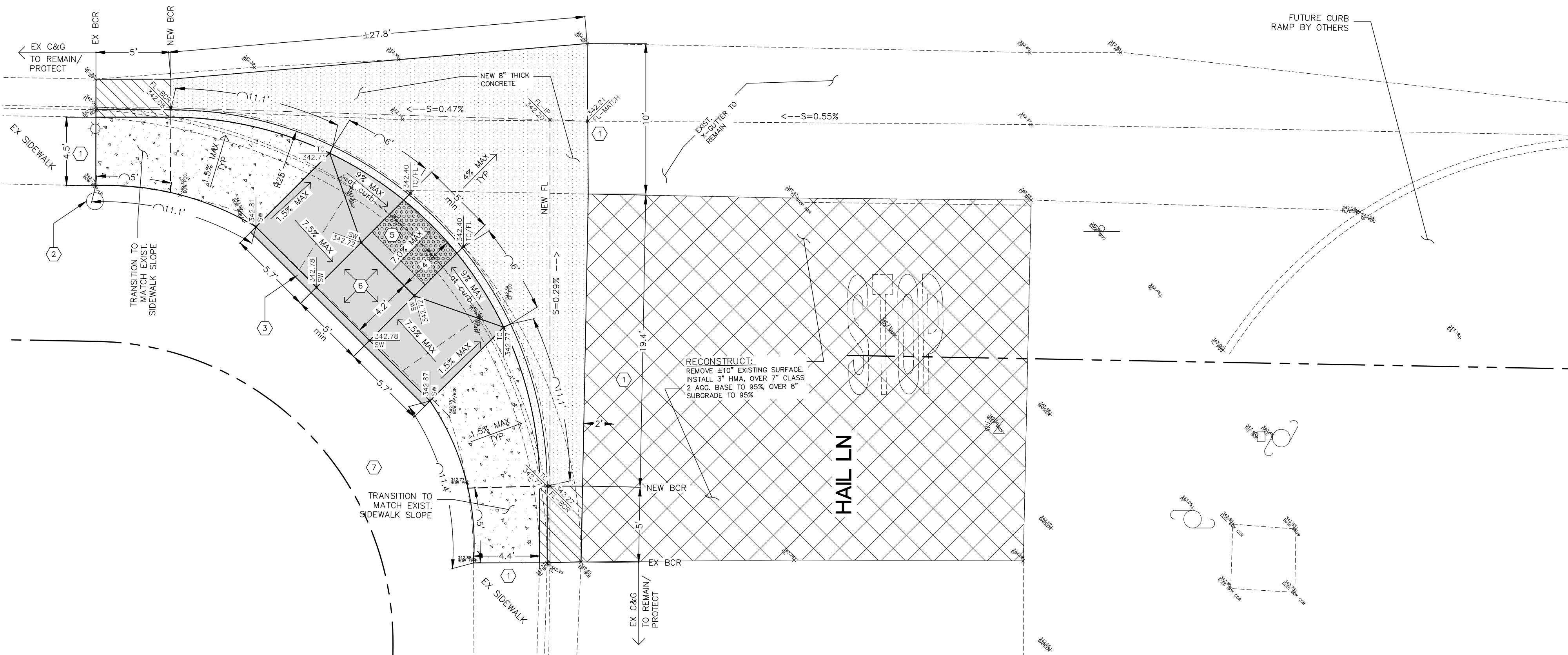
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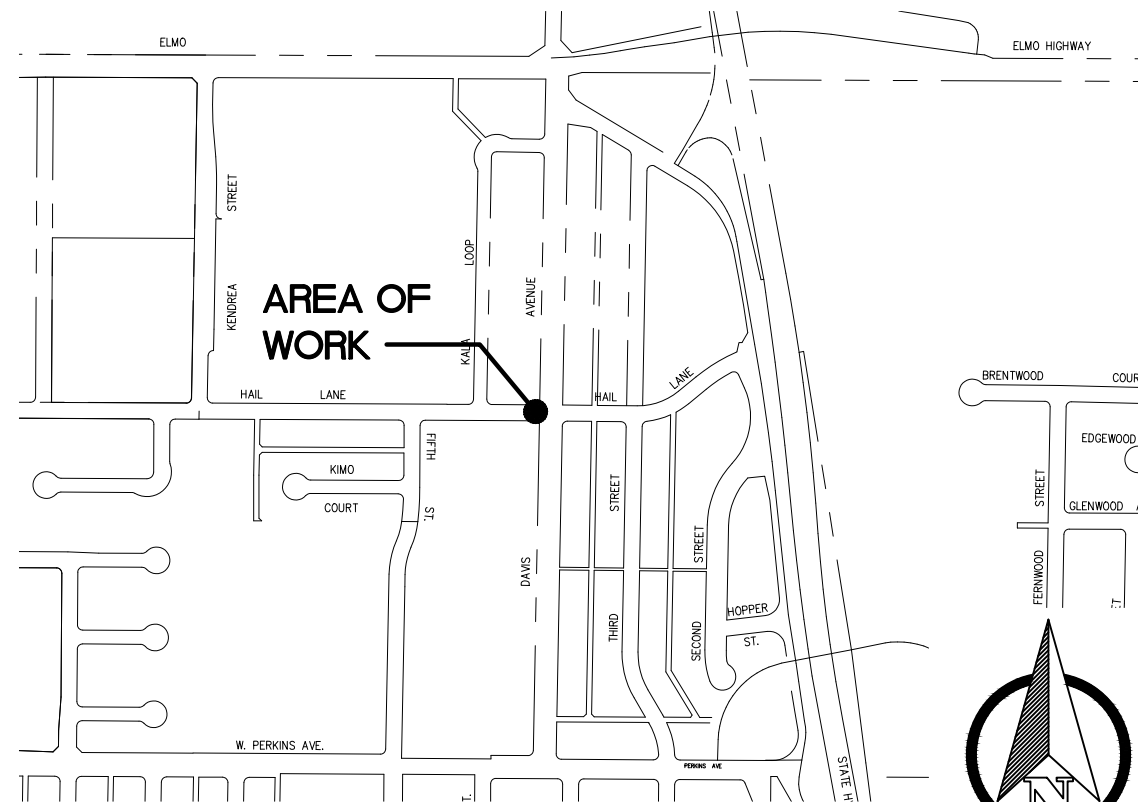
DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.
100% REVIEW SET -NOT FOR CONSTRUCTION-
ADA RAMP #7

DATE: 12/03/21
DRAWN: MPH/JMP
CK'D BY: ---
DATE CK'D: ---
REV:
Job No.
20601
SHEET
08
OF 14 SHEETS

DAVIS RD



07 ADA CURB RAMP CASE "B"



CONSTRUCTION KEY NOTES

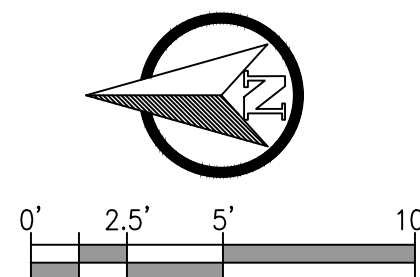
- SAWCUT & MATCH EXISTING AC/C&G/SIDEWALK/V-GUTTER.
- EXISTING FENCE/CMU WALL/POWER POLE/STREET LIGHT/CONC CURB/UTIL BOX/ FH/BOLLARDS TO REMAIN/PROTECT.
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- EXISTING WATER/UTIL BOX TO BE ADJUST TO NEW GRADES

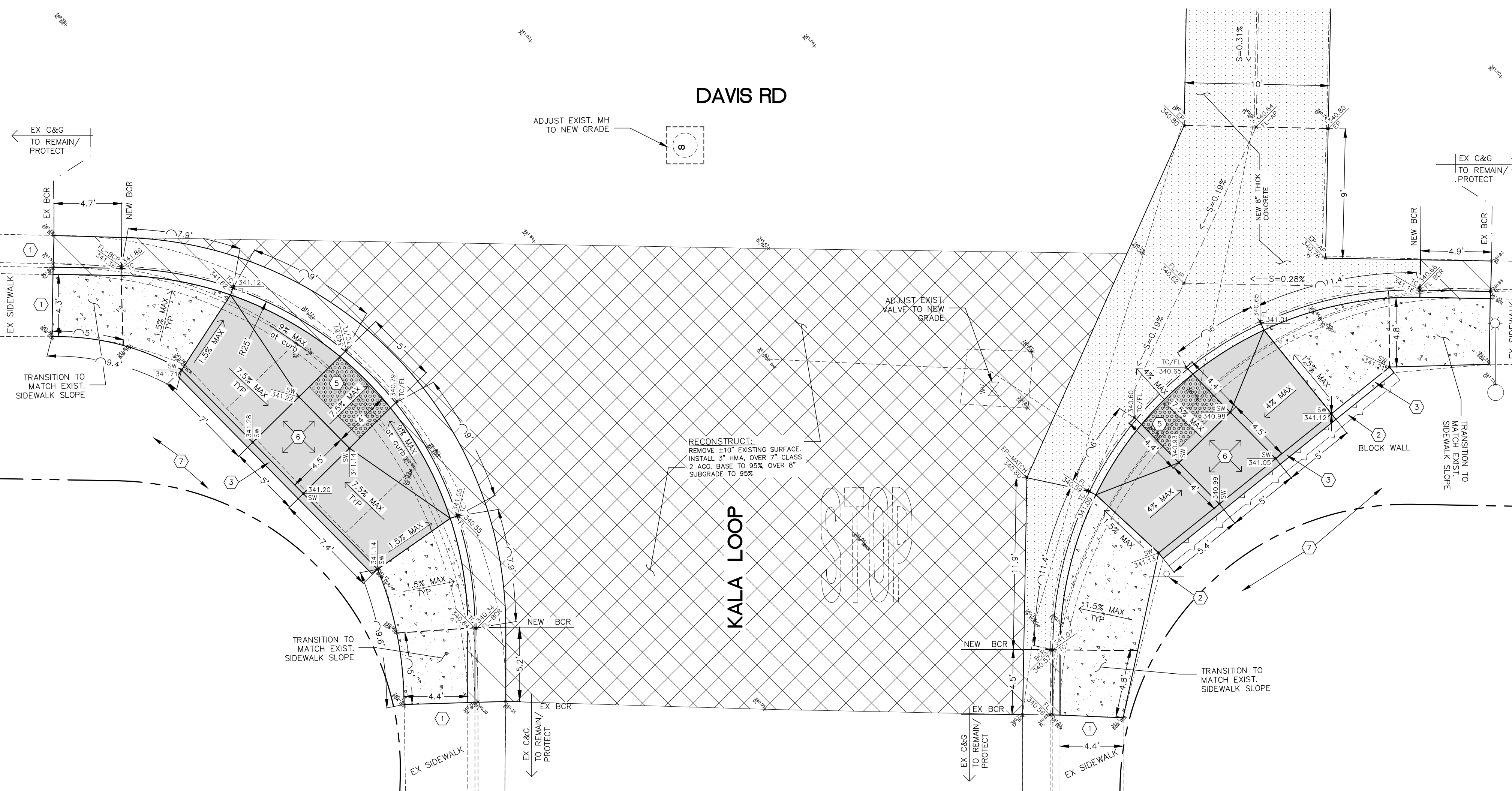
LEGEND

AC	ASPHALT CONCRETE		DETECTABLE WARNING SURFACE: IN-LINE
BC	BACK OF CURB		NEW CONCRETE: CURB RAMP 4" THICK
BCR	BEGIN CURB RETURN		NEW 4" THICK CONCRETE SIDEWALK.
CLF	CHAIN LINK FENCE		NEW 8" THICK CONCRETE REINFORCED APRON/CURB, X-GUTTER
C&G	CURB AND GUTTER		NEW CONCRETE: CURB & GUTTER
CJ	CONTROL JOINT		AC PAVEMENT TIE-IN / STREET RECONSTRUCTION
EP	EDGE OF PAVEMENT		
ECR	END CURB RETURN		
EJ	EXPANSION JOINT		
EX	EXISTING		
FL	FLOW LINE		
FV	FIELD VERIFY		
MAX	MAXIMUM		
MIN	MINIMUM		
R/W	RIGHT OF WAY		
SW	SIDEWALK		
TC	TOP OF CURB		

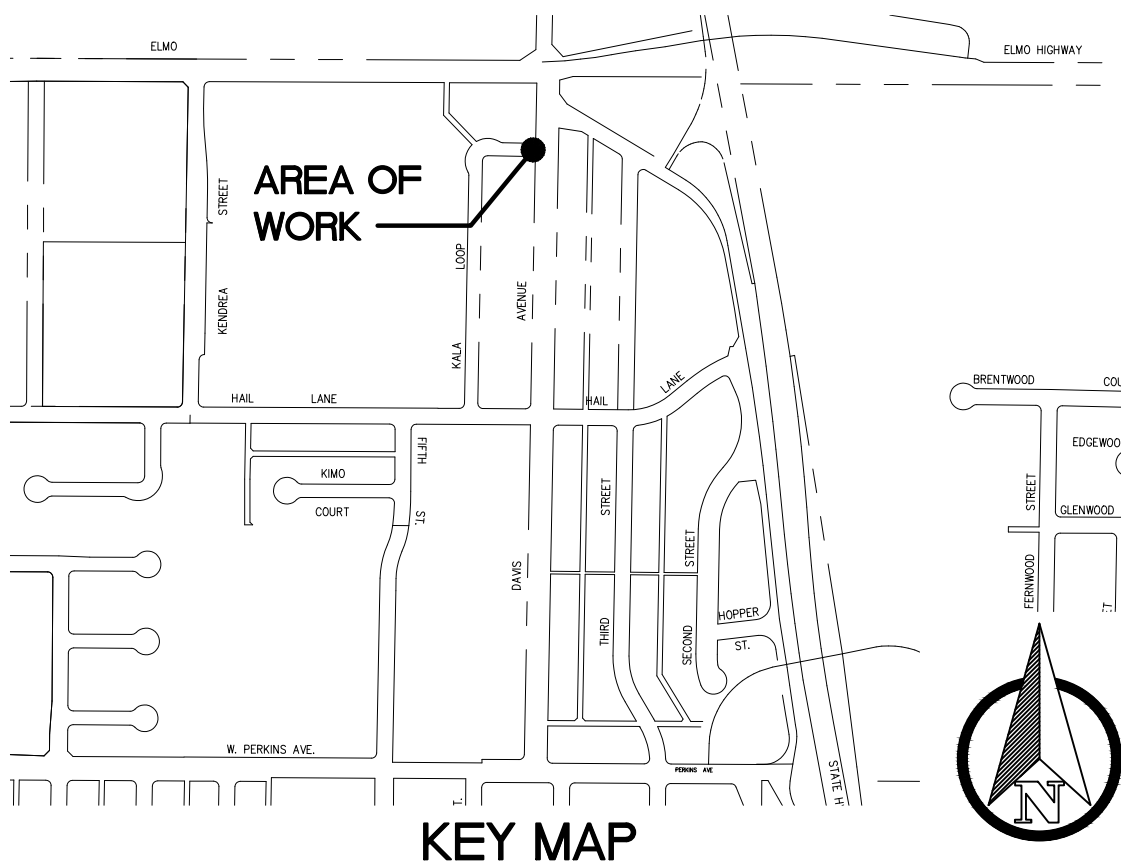
GENERAL NOTES

- SIDEWALK AND RAMP THICKNESS SHALL BE 4"-MIN.
- PORTLAND CEMENT CONCRETE PAVING & CONCRETE FINISHES:
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09 ADA CURB RAMP CASE "B"



- ① SAWCUT & MATCH EXISTING AC/C&G/SIDEWALK/V-GUTTER.
- ② EXISTING FENCE/CMU WALL/POWER POLE/STREET LIGHT/CONC CURB/UTIL BOX/ FH/BOLLARDS TO REMAIN/PROTECT.
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- ⑥ 1.5% MAX SLOPE IN ANY DIRECTION AT LANDINGS
- ⑦ EXISTING LANDSCAPING/IRRIG. SYSTEM TO REMAIN/PROTECT-MODIFY/REPAIR IN KIND AS REQUIRED TO ALLOW FOR NEW WORK-SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- ⑧ EXISTING WATER/UTIL BOX TO BE ADJUST TO NEW GRADES

AC	ASPHALT CONCRETE		DETECTABLE WARNING PATTERN: IN-LINE
BC	BACK OF CURB		
BCR	BEGIN CURB RETURN		
CLF	CHAIN LINK FENCE		
C&G	CURB AND GUTTER		
CJ	CONTROL JOINT		NEW CONCRETE: CURB RAMP 4" THICK
EP	EDGE OF PAVEMENT		NEW 4" THICK CONCRETE SIDEWALK.
ECR	END CURB RETURN		
EJ	EXPANSION JOINT		
EX	EXISTING		
FL	FLOW LINE		
FV	FIELD VERIFY		
MAX	MAXIMUM		NEW 8" THICK CONCRETE REINFORCED APRON/CURB X-GUTTER
MIN	MINIMUM		
R/W	RIGHT OF WAY		
SW	SIDEWALK		
TC	TOP OF CURB		NEW CONCRETE: CURB

1. SIDEWALK AND RAMP THICKNESS SHALL BE 4"-MIN.
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CONSTRUCTION KEY NOTES

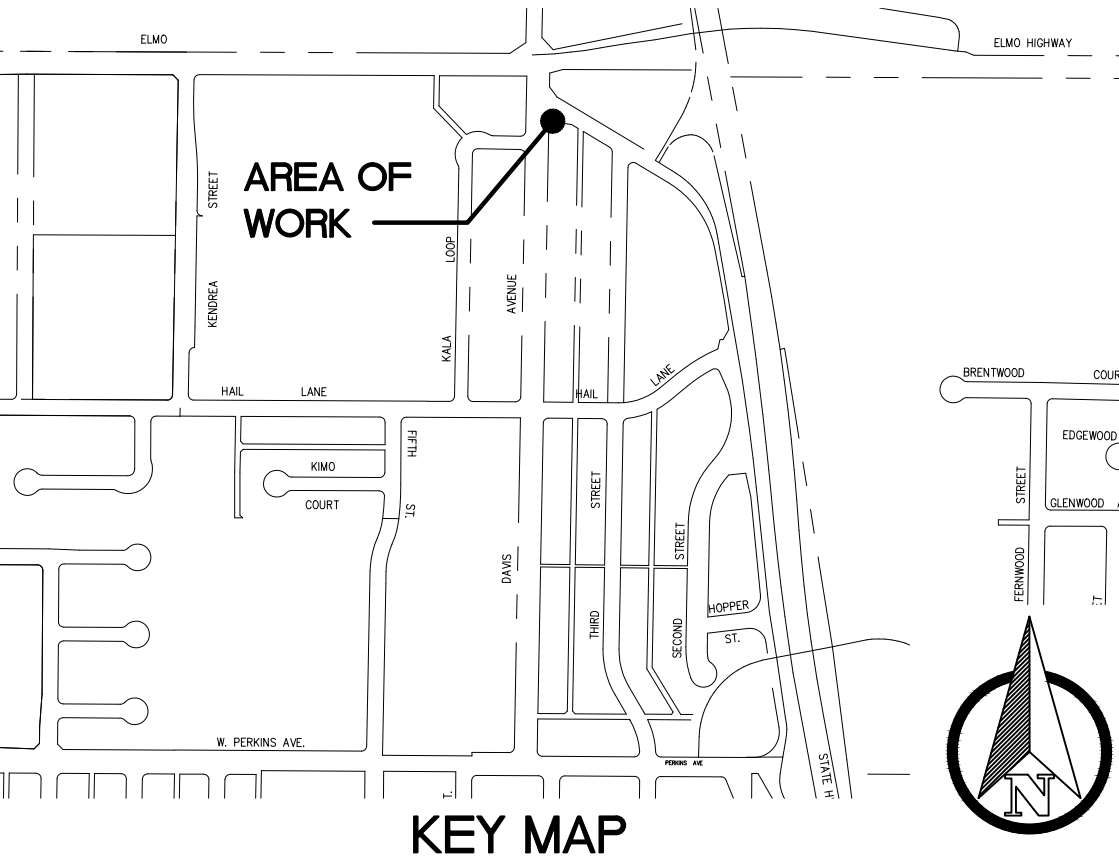
- ① SAWCUT & MATCH EXISTING AC/C&G/SIDEWALK/V-GUTTER.
- ② EXISTING FENCE/CMU WALL/POWER POLE/STREET LIGHT/CONC CURB/UTIL BOX/ FH/BOLLARDS TO REMAIN/PROTECT.
- ③ INSTALL RETAINING CURB. W=6". HEIGHT AS NECESSARY TO MATCH EXISTING/NEW FIELD CONDITIONS.
- ④ SALVAGE AND/OR RELOCATE EXT. SIGN AS DIRECTED BY FIELD ENGINEER. PROVIDE NEW STEEL POLE/FOOTING SEE DETAIL ON SHEET 14.
- ⑤ INSTALL CAST-IN-PLACE, RAISED TRUNCATED DOME (IN-LINE PATTERN), DETECTABLE WARNING SURFACE, BY ARMOR-TILE (WWW.ARMOR-TILE.COM), OR BY ADA SOLUTIONS, INC. (WWW.ADATILE.COM), OR SAFETY STEP TD (WWW.SAFETYSTEPTD.COM), OR APPROVED EQUAL. COLOR: YELLOW CONFORMING TO FEDERAL COLOR NO. 33538.
- ⑥ 1.5% MAX SLOPE IN ANY DIRECTION AT LANDINGS
- ⑦ EXISTING LANDSCAPING/IRRIG. SYSTEM TO REMAIN/PROTECT-MODIFY/REPAIR IN KIND AS REQUIRED TO ALLOW FOR NEW WORK-SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- ⑧ EXISTING WATER/UTIL BOX TO BE ADJUST TO NEW GRADES

LEGEND

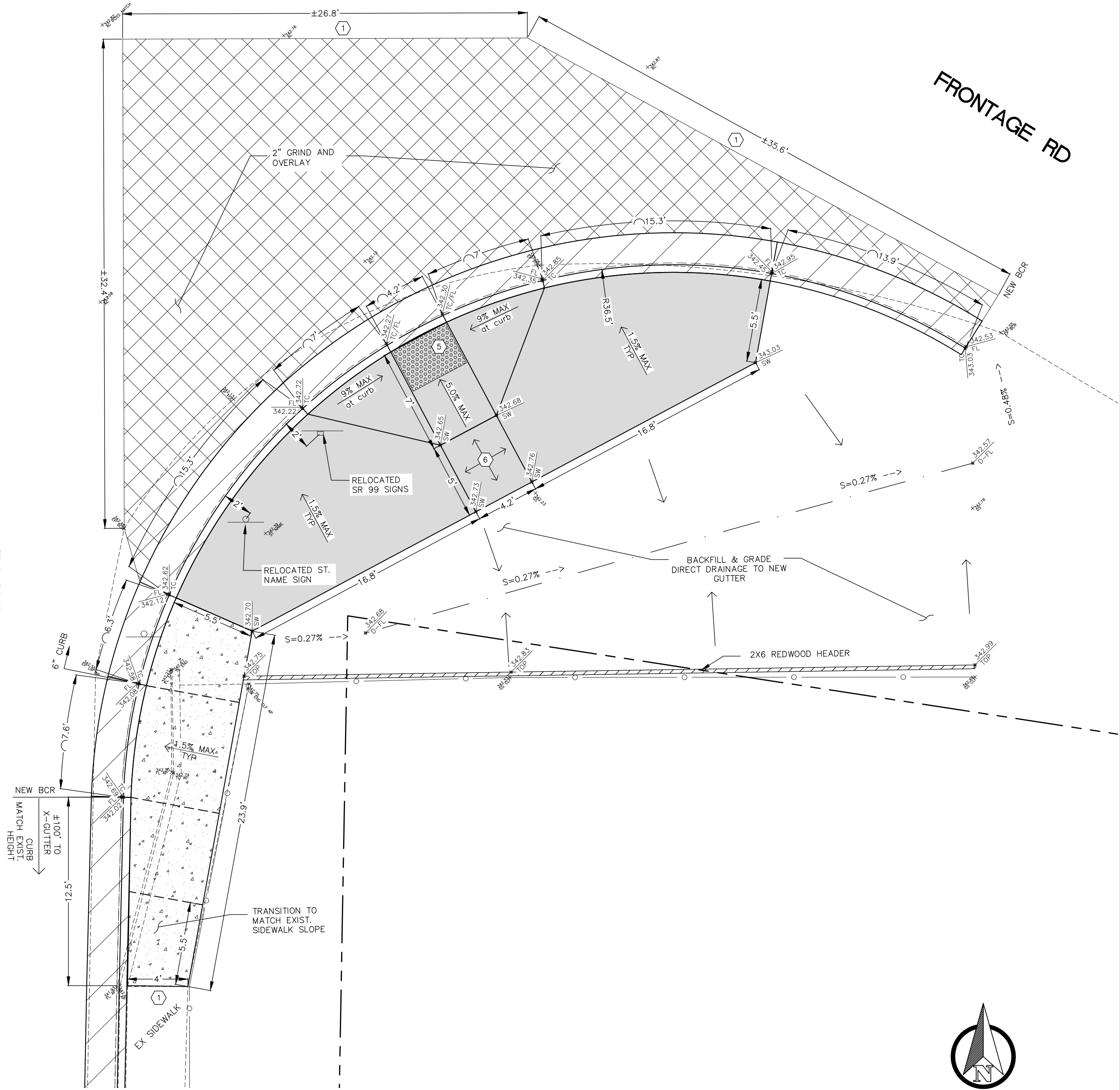
AC	ASPHALT CONCRETE		DETECTABLE WARNING PATTERN: IN-LINE
BC	BACK OF CURB		
BCR	BEGIN CURB RETURN		
CLF	CHAIN LINK FENCE		
C&G	CURB AND GUTTER		
CJ	CONTROL JOINT		
EP	EDGE OF PAVEMENT		
ECR	END CURB RETURN		
EJ	EXPANSION JOINT		
EX	EXISTING		
FL	FLOW LINE		
FV	FIELD VERIFY		
MAX	MAXIMUM		
MIN	MINIMUM		
R/W	RIGHT OF WAY		
SW	SIDEWALK		
TC	TOP OF CURB		
			NEW CONCRETE: CURB RAMP 4" THICK
			NEW 4" THICK CONCRETE SIDEWALK.
			NEW 8" THICK CONCRETE REINFORCED APRON/CURB, X-GUTTER
			NEW CONCRETE: CURB & GUTTER
			AC PAVEMENT TIE-IN / STREET RECONSTRUCTION

GENERAL NOTES

1. SIDEWALK AND RAMP THICKNESS SHALL BE 4"-MIN.
2. PORTLAND CEMENT CONCRETE PAVING & CONCRETE FINISHES:
PORTLAND CEMENT CONCRETE PAVING SHALL HAVE A MEDIUM BROOM FINISH ON ALL SURFACES LESS THAN 6% AND A HEAVY BROOM FINISH ON ALL SURFACES GREATER THAN 6%.
3. CONTRACTOR SHALL REPLACE IN KIND ANY LANDSCAPING, IRRIGATION, CONCRETE, FENCING, ETC. THAT IS REMOVED OR DAMAGED DURING CONSTRUCTION. ALSO, CONTRACTOR SHALL SET TO GRADE EXISTING UTILITY BOXES, WHETHER OR NOT SHOWN ON THE PLANS. COMPENSATION SHALL BE INCLUDED IN THE CONTRACT PRICE AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.
4. THE COST FOR PAVEMENT TIE-IN SHALL BE INCLUDED IN THE VARIOUS ITEMS OF WORK, AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.

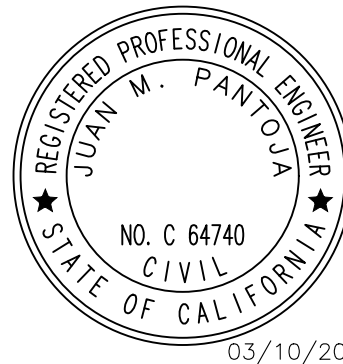


DAVIS RD



10 ADA CURB RAMP CASE "A"

BHT
ENGINEERING, INC.
218 S. H St., Ste. 201
BAKERSFIELD, CA. 93304
(661) 558-4641



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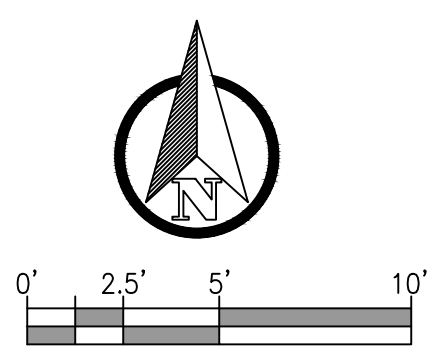
CITY OF MCFARLAND
KERN COUNTY, CA
DEPARTMENT OF
PUBLIC WORKS

DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.
100% REVIEW SET -NOT FOR CONSTRUCTION-
ADA RAMP #10

DATE: 12/03/21
DRAWN: MPH/JMP
CK'D BY: ---
DATE CK'D: ---
REV:

Job No.
20601

SHEET
10
OF 14 SHEETS



- ① SAWCUT & MATCH EXISTING AC/C&G/SIDEWALK/V-GUTTER.
- ② EXISTING FENCE/CMU WALL/POWER POLE/STREET LIGHT/CONC CURB/UTIL BOX/ FH/BOLLARDS TO REMAIN/PROTECT.
- ③ INSTALL RETAINING CURB. W=6". HEIGHT AS NECESSARY TO MATCH EXISTING/NEW FIELD CONDITIONS.
- ④ SALVAGE AND/OR RELOCATE EXT. SIGN AS DIRECTED BY FIELD ENGINEER. PROVIDE NEW STEEL POLE/FOOTING SEE DETAIL ON SHEET 14.
- ⑤ INSTALL CAST-IN-PLACE, RAISED TRUNCATED DOME (IN-LINE PATTERN), DETECTABLE WARNING SURFACE, BY ARMOR-TILE (WWW.ARMOR-TILE.COM), OR BY ADA SOLUTIONS, INC. (WWW.ADATILE.COM), OR SAFETY STEP TD (WWW.SAFETYSTEPTD.COM), OR APPROVED EQUAL. COLOR: YELLOW CONFORMING TO FEDERAL COLOR NO. 33538.
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- ⑧ EXISTING WATER/UTIL BOX TO BE ADJUST TO NEW GRADES

AC	ASPHALT CONCRETE		DETECTABLE WARNING PATTERN: IN-LINE
BC	BACK OF CURB		
BCR	BEGIN CURB RETURN		
CLF	CHAIN LINK FENCE		
C&G	CURB AND GUTTER		
CJ	CONTROL JOINT		NEW CONCRETE: CURB RAMP 4" THICK
EP	EDGE OF PAVEMENT		
ECR	END CURB RETURN		
EJ	EXPANSION JOINT		NEW 4" THICK CONCRETE SIDEWALK.
EX	EXISTING		
FL	FLOW LINE		
FV	FIELD VERIFY		
MAX	MAXIMUM		NEW 8" THICK CONCRETE REINFORCED APRON/CURB, X-GUTTER
MIN	MINIMUM		
R/W	RIGHT OF WAY		
SW	SIDEWALK		NEW CONCRETE: CURB & GUTTER
TC	TOP OF CURB		AC PAVEMENT TIE-IN / STREET RECONSTRUCTION

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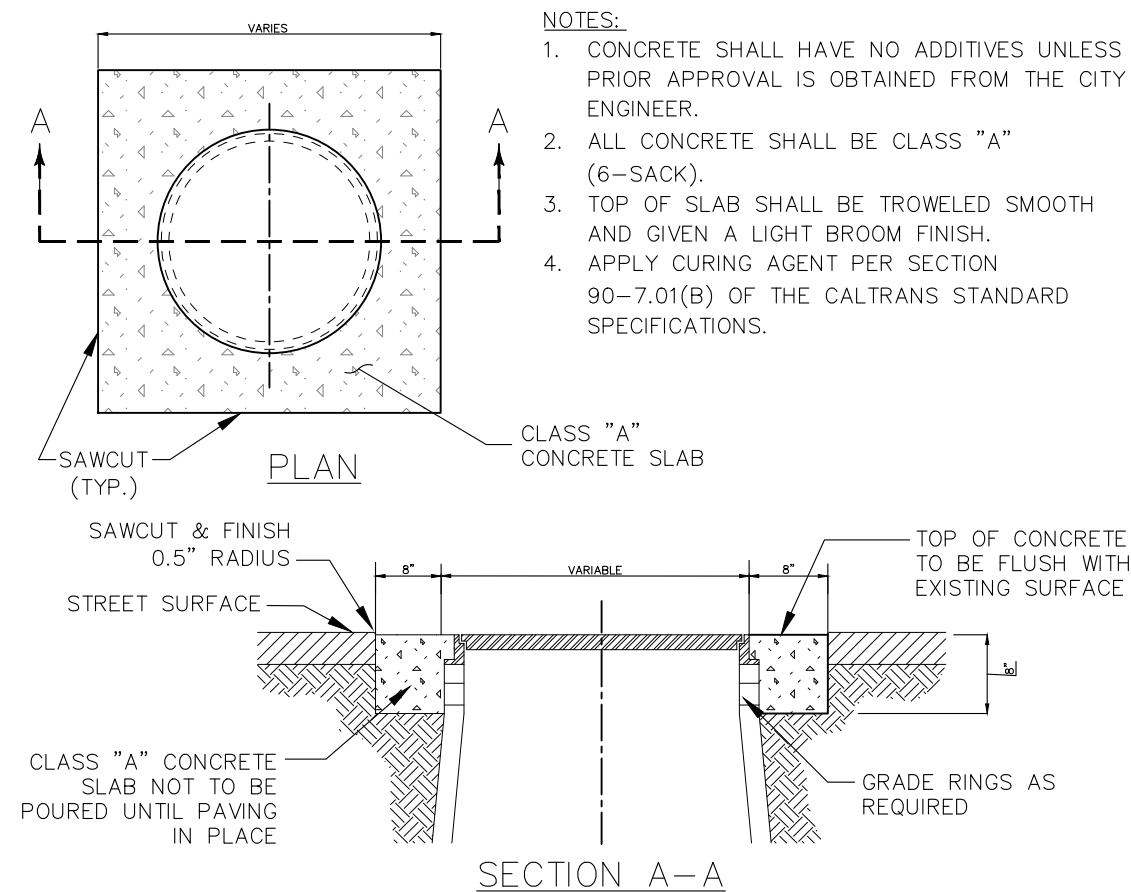
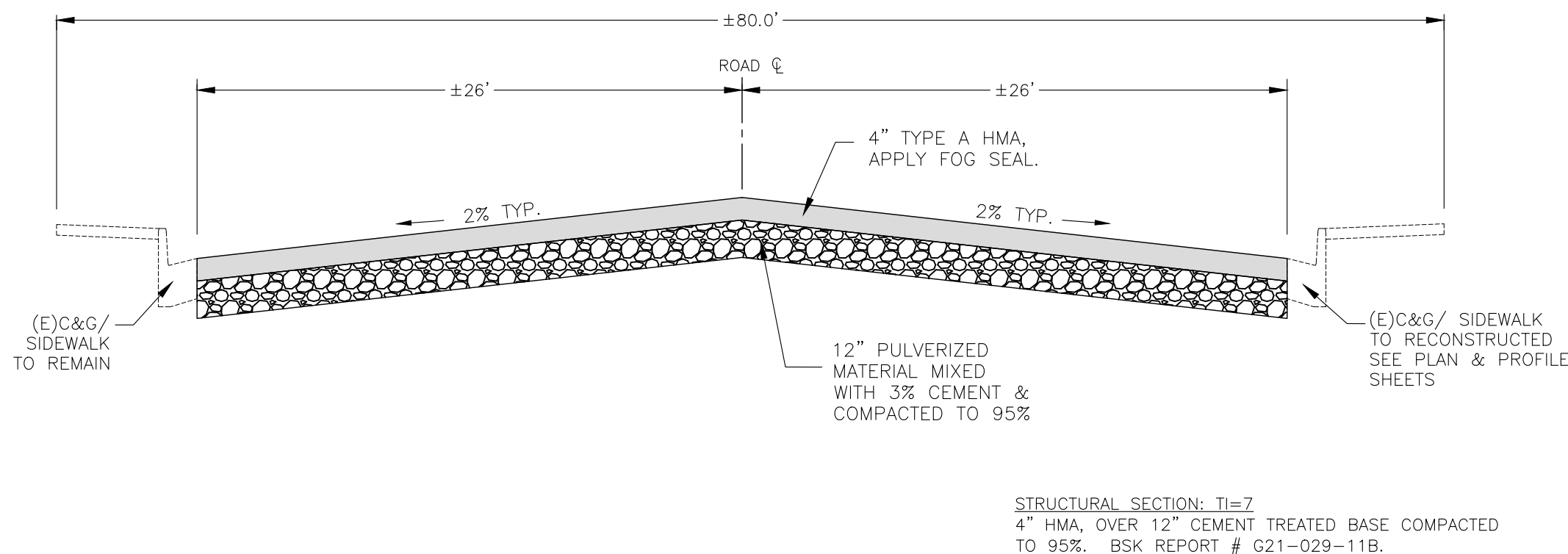
CITY OF MCFARLAND
KERN COUNTY, CA
DEPARTMENT OF
PUBLIC WORKS

DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.
100% REVIEW SET -NOT FOR CONSTRUCTION-
DETAILS 1

DATE: 12/03/21
DRAWN: MPH/JMP
CK'D BY: ---
DATE CK'D: ---
REV:

Job No.
20601

SHEET
13
OF 14 SHEETS



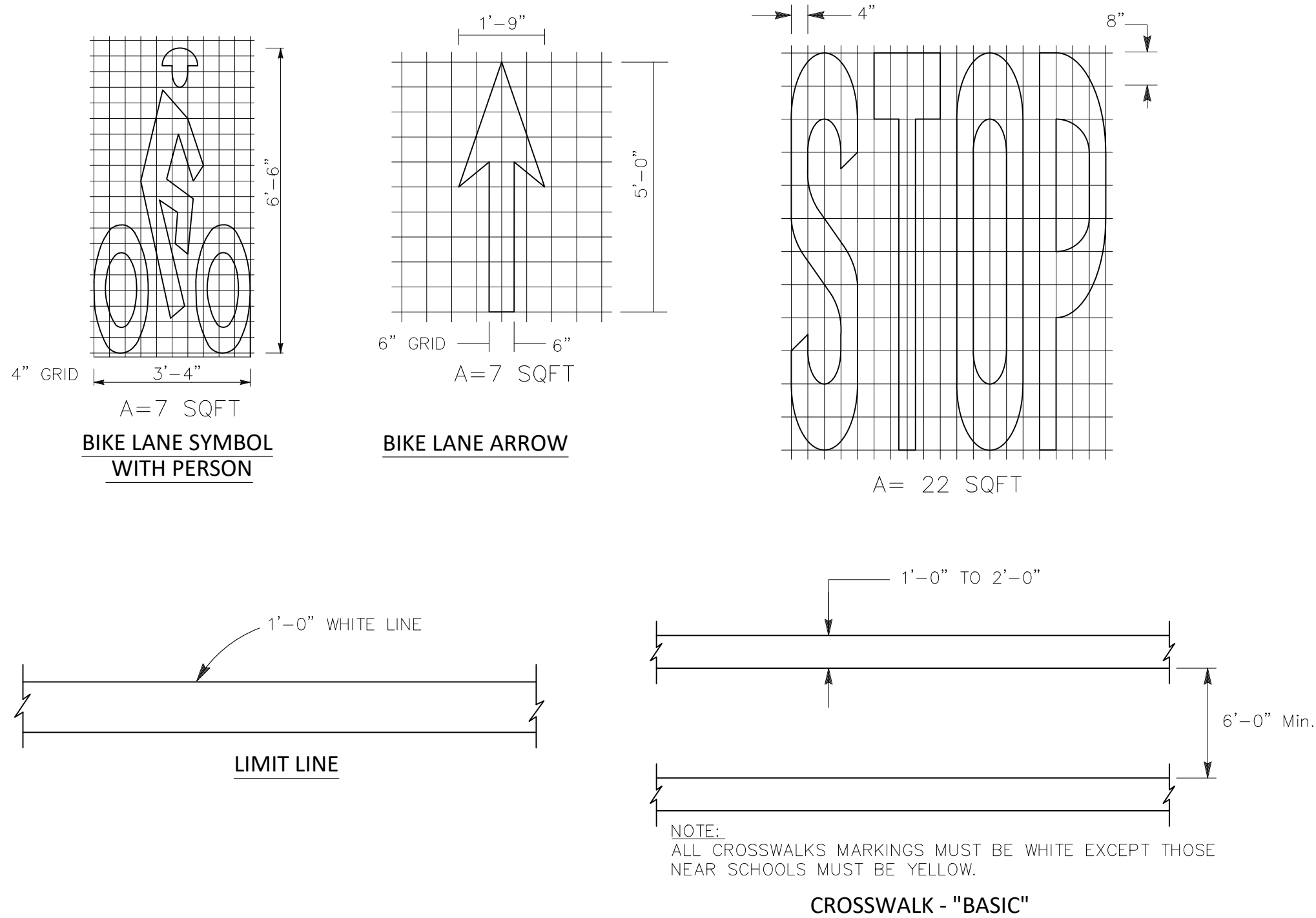
- NOTES:
1. CONCRETE SHALL HAVE NO ADDITIVES UNLESS PRIOR APPROVAL IS OBTAINED FROM THE CITY ENGINEER.
 2. ALL CONCRETE SHALL BE CLASS "A" (6-SACK).
 3. TOP OF SLAB SHALL BE TROWELED SMOOTH AND GIVEN A LIGHT BROOM FINISH.
 4. APPLY CURING AGENT PER SECTION 90-7.01(B) OF THE CALTRANS STANDARD SPECIFICATIONS.

01 TYPICAL STREET SECTION - DAVIS AVENUE

NTS

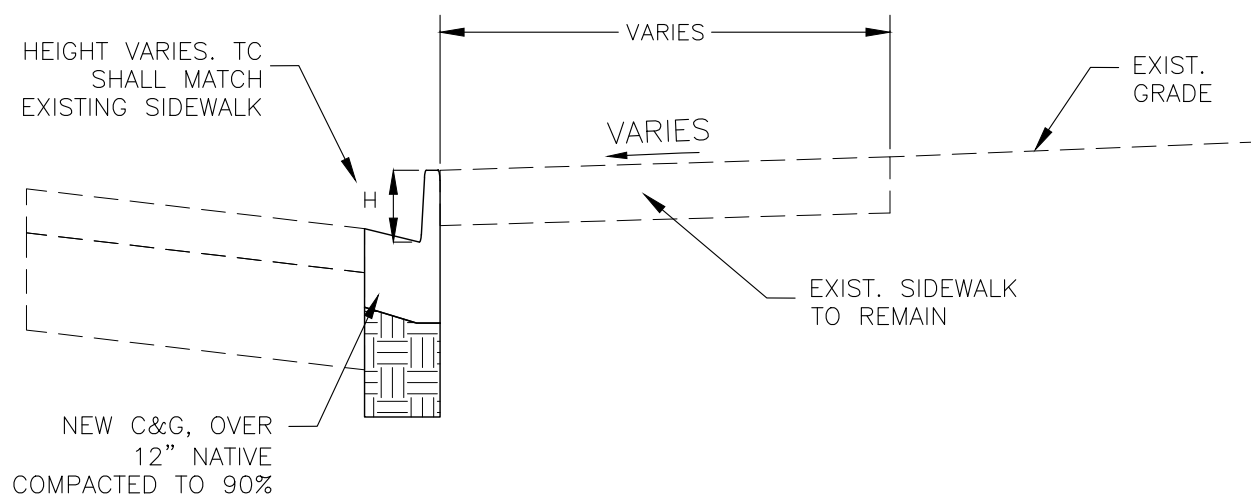
02 ADJUST COVERS TO GRADE

NTS



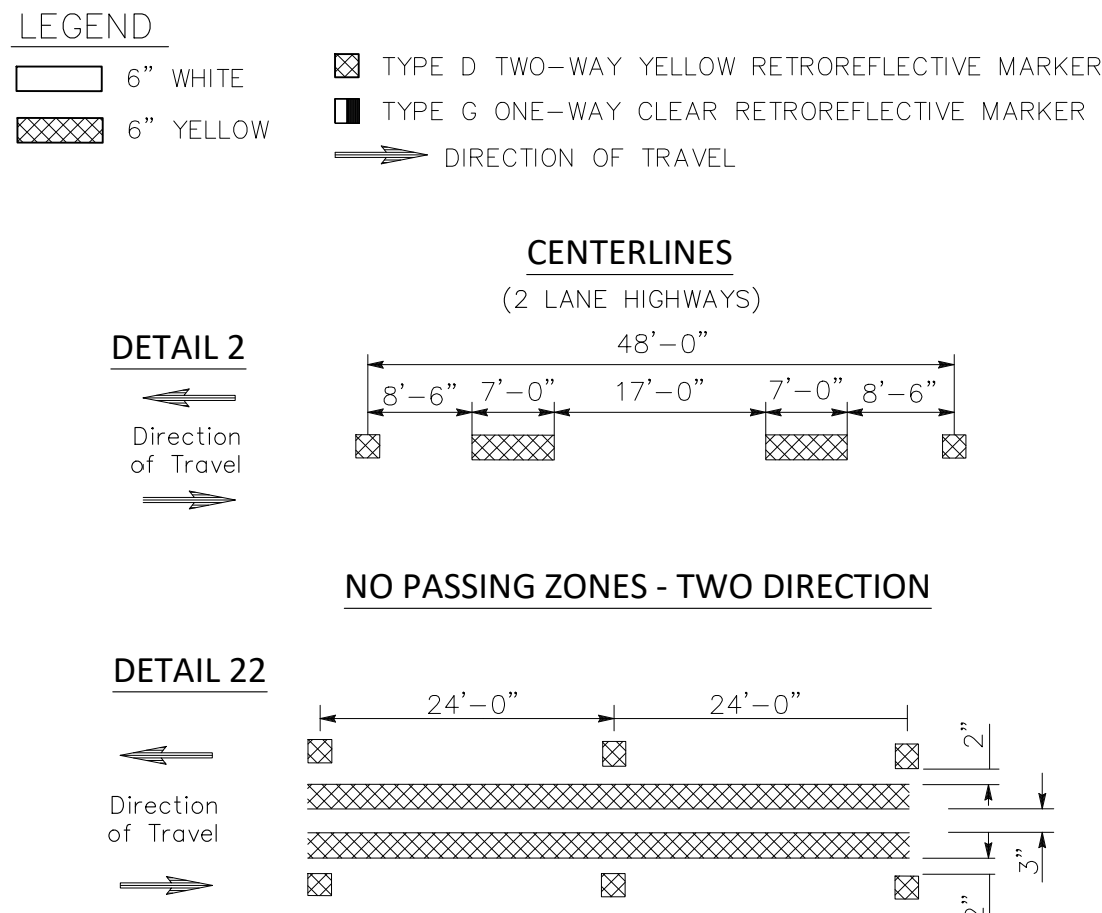
03 CALTRANS STD. PLAN A24A, A24C, A24D, A24E, A24F (PARTIAL)

NTS



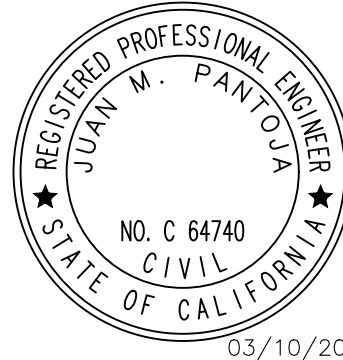
04 TYPICAL C&G RECONSTRUCTION DETAIL

NTS



05 CALTRANS STD. PLAN A20A, A20B, A20C, AND A20D (PARTIAL)

NTS



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KERN COUNTY, CA
DEPARTMENT OF
PUBLIC WORKS

DAVIS AVE RECONSTRUCTION
W. PERKINS AVE. TO ELMO HWY.
100% REVIEW SET -NOT FOR CONSTRUCTION-
DETAILS 2

DATE: 12/03/21
DRAWN: MPH/JMP
CK'D BY: ---
DATE CK'D: ---
REV:

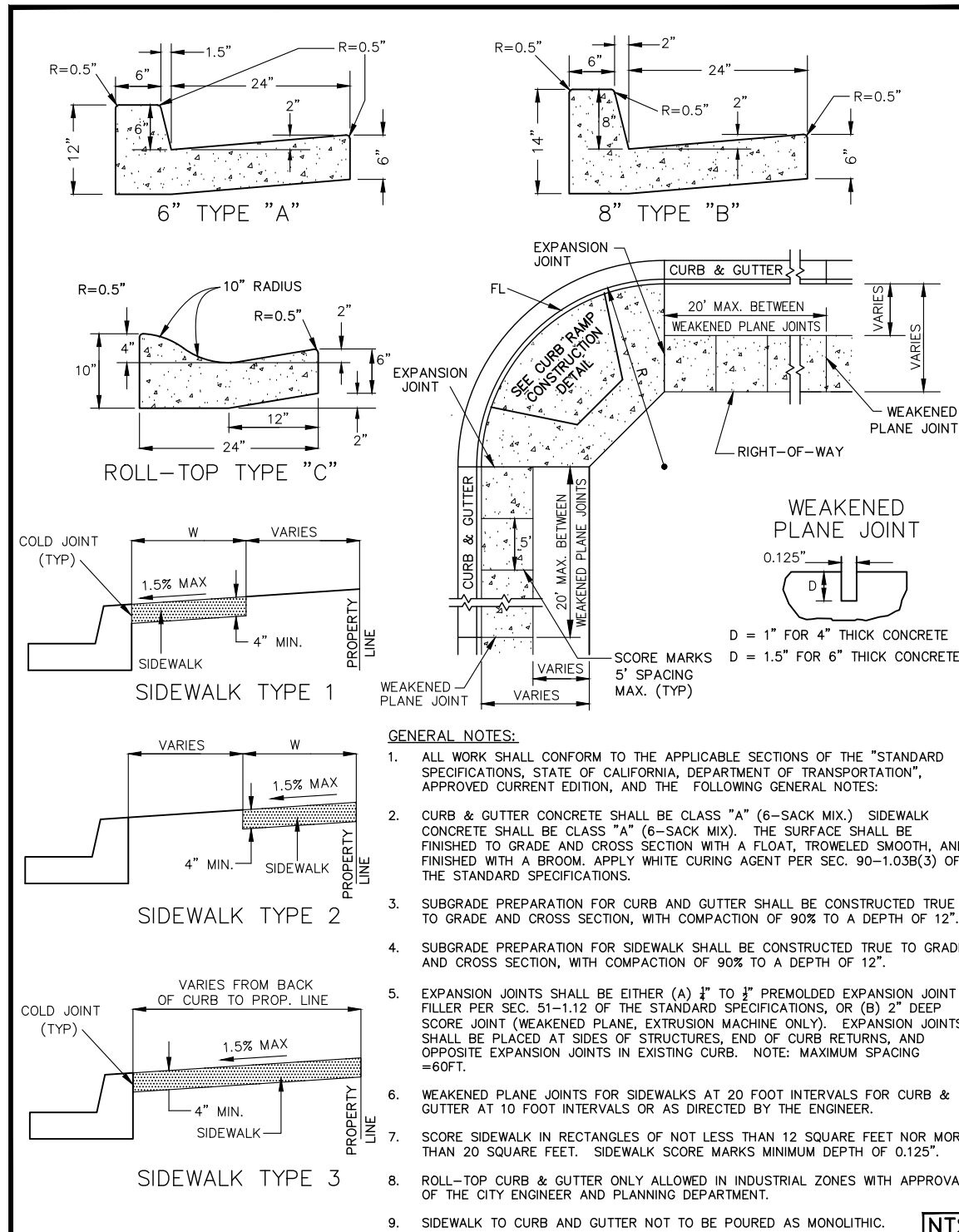
Job No.

20601

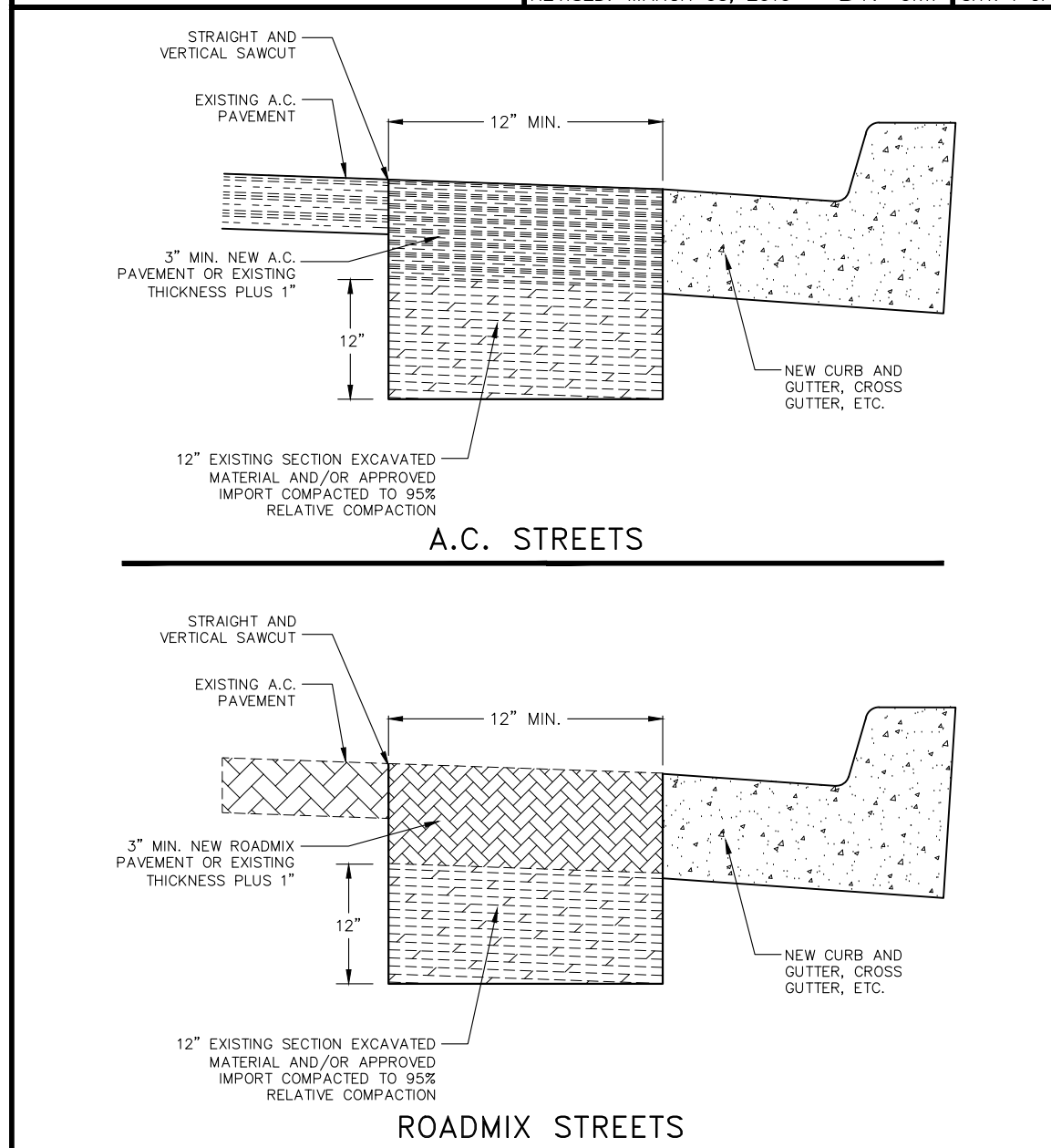
SHEET

14

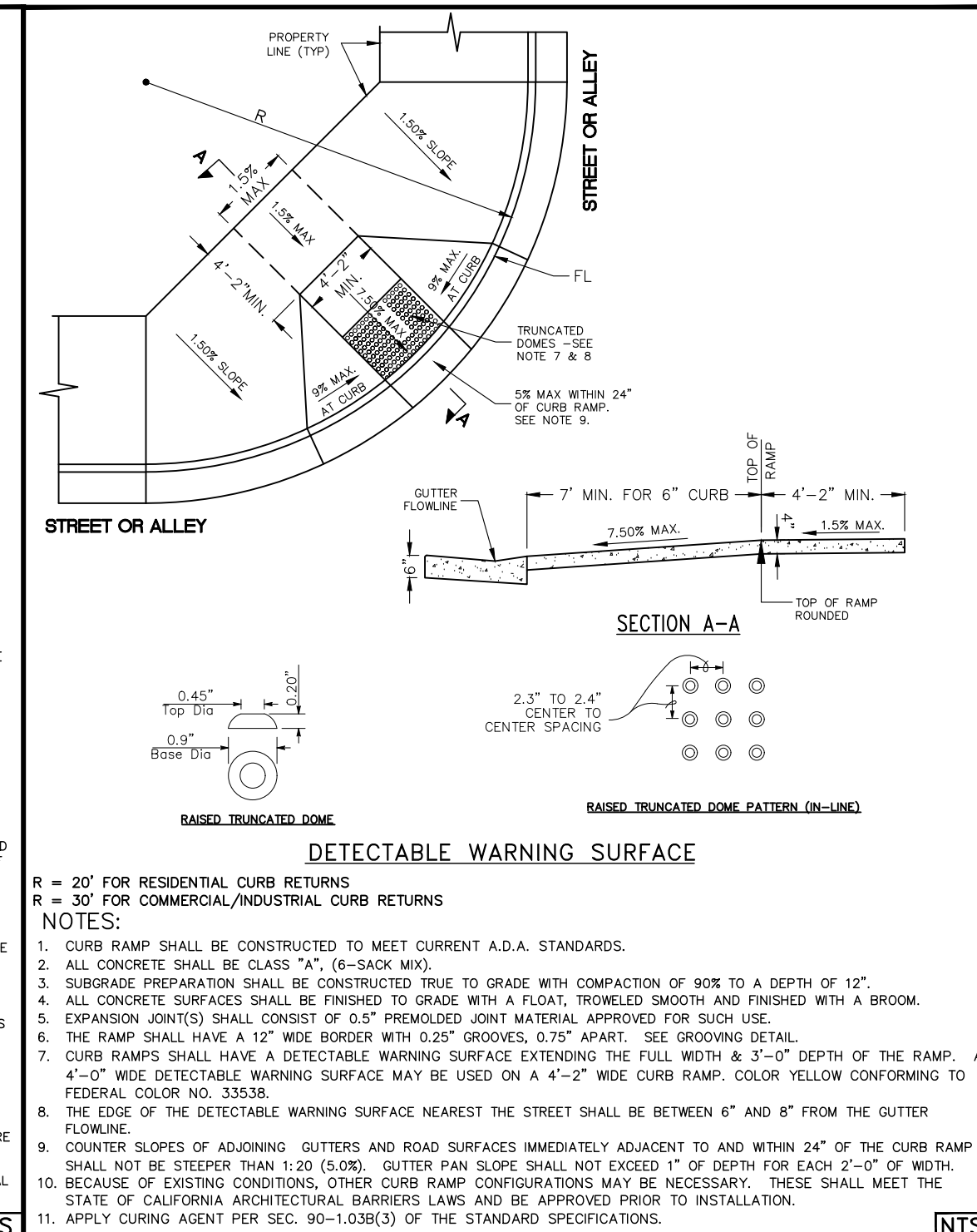
OF 14 SHEETS



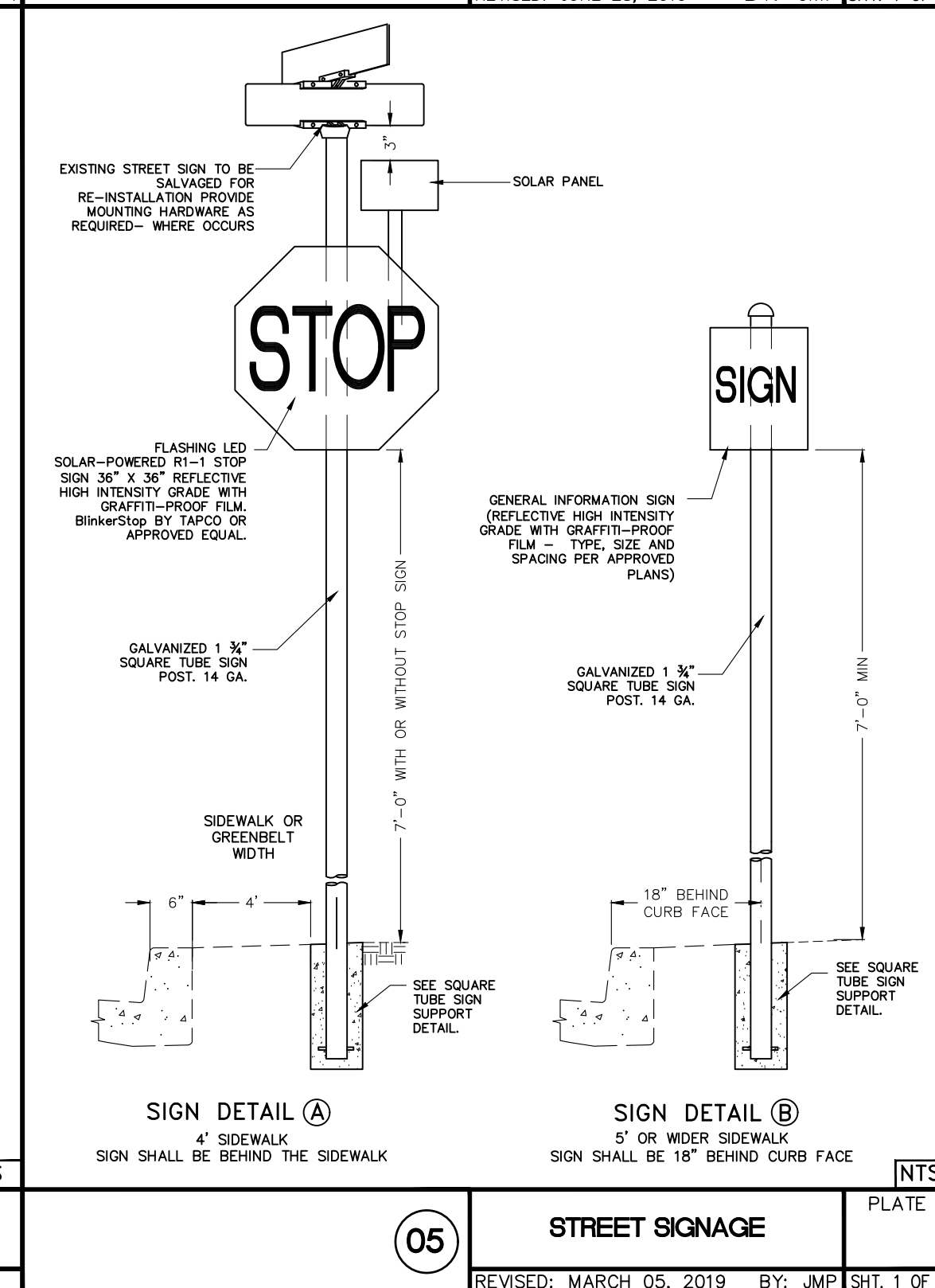
01	CURB, GUTTER AND SIDEWALK	PLATE
REVISED: MARCH 05, 2019 BY: JMP SHT. 1 OF 1		



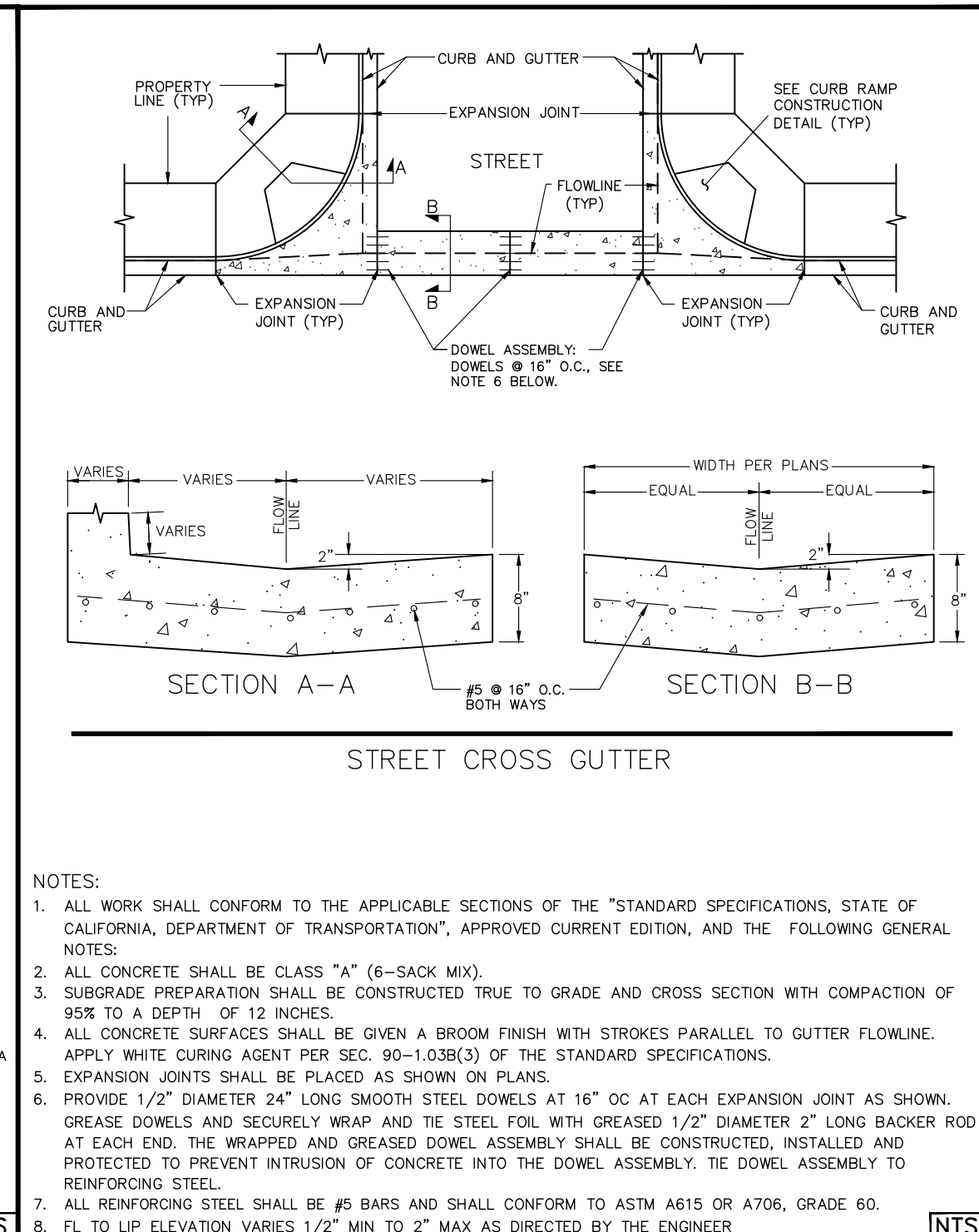
04	PAVEMENT TIE-IN	PLATE
REVISED: APRIL 26, 2012 BY: JMP SHT. 1 OF 1		



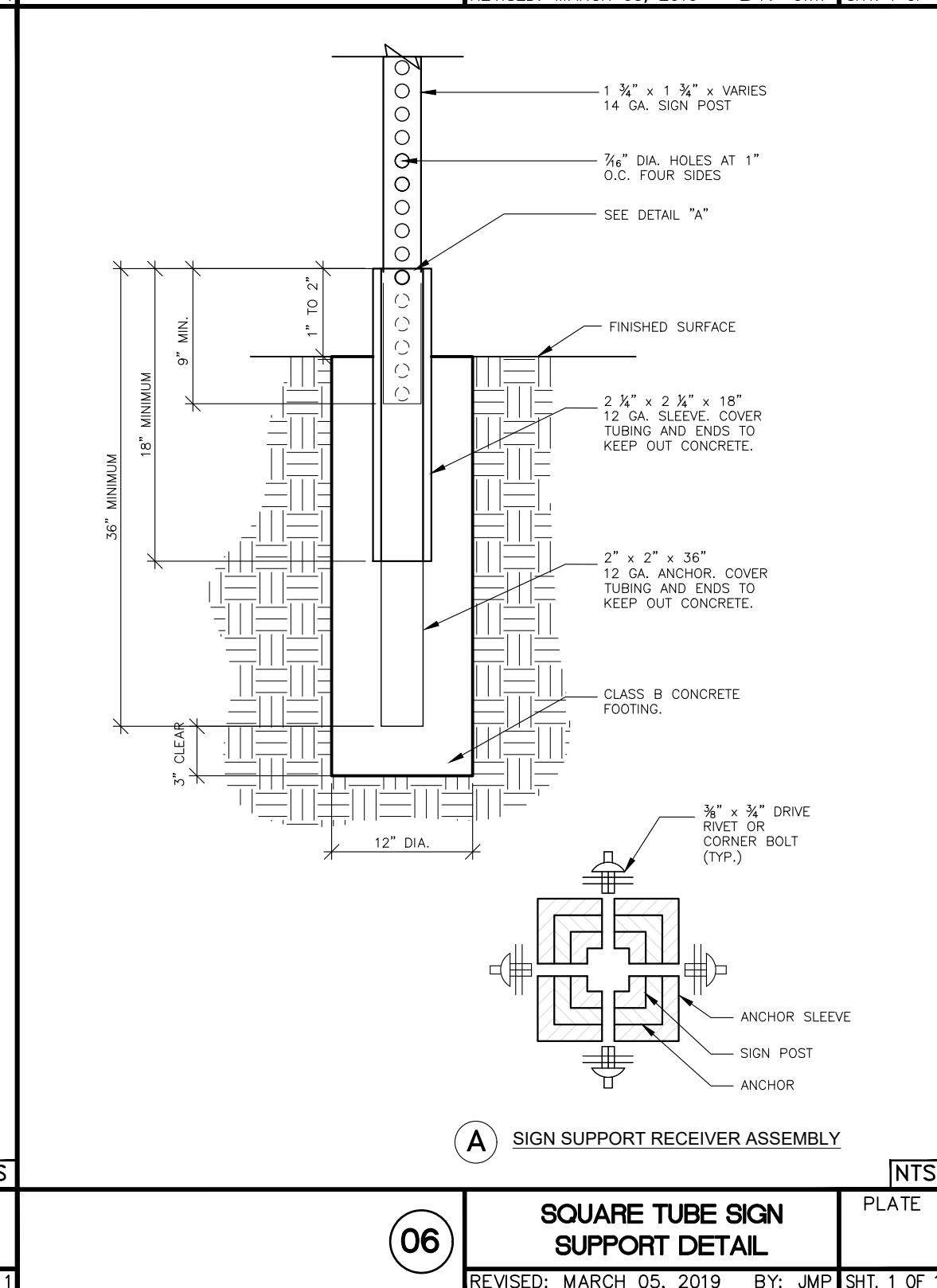
02	CURB RAMP TYPE 'A'	PLATE
REVISED: JUNE 28, 2019 BY: JMP SHT. 1 OF 1		



05	STREET SIGNAGE	PLATE
REVISED: MARCH 05, 2019 BY: JMP SHT. 1 OF 1		



03	REINFORCED CROSS GUTTER	PLATE
REVISED: MARCH 05, 2019 BY: JMP SHT. 1 OF 1		



06	SQUARE TUBE SIGN SUPPORT DETAIL	PLATE
REVISED: MARCH 05, 2019 BY: JMP SHT. 1 OF 1		



CITY OF McFARLAND NOTICE TO BIDDERS & SPECIAL PROVISIONS FOR DAVIS AVE. RECONSTRUCTION



For use in connection with construction projects administered under the 2018 State Of California Department Of Transportation Standard Plans And Standard Specifications. The 2018 State Of California Department Of Transportation Revised Standard Plans And Revised Standard Specifications. The 2014 California Manual On Uniform Traffic Control Devices (CA MUTCD), and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished. Hot Mix Asphalt shall conform to the provisions in Section 39, "Hot Mix Asphalt," of the 2010 Standard Specifications and these special provisions.

CRITICAL DATES AND REQUIREMENTS (Subject to change upon previous notice)

Advertise:	December 19, 2021
Pre-Bid Meeting/ Job Walk:	January 12, 2022 @ 10:00 AM at McFarland Community Center located at 103 W. Sherwood Ave., McFarland, CA 93250. Attendance is not mandatory.
Bids Due:	February 3, 2022 @ 2:00 PM at McFarland City Hall, located at 401 West Kern Ave., McFarland, CA 93250
Bid Opening:	February 3, 2022 @ 2:15 PM at Community Center located at 103 W. Sherwood Ave., McFarland, CA 93250
Contractor License Requirement(s):	Class 'A'
Project Completion Time:	45 working days
Proposed Council Action to Award:	February 24, 2022 City Council Meeting
Pre-Construction Meeting	March 15, 2022 @ 10:00 AM at McFarland Community Center
Construction Start Date:	April 4, 2022
Construction End Date:	June 6, 2022
Notice of Completion Council Action:	June 23, 2022

Mario Gonzalez – Public Works Director
Full-time Local Agency Employee in Responsible Charge

12/##/21
Date

Juan M. Pantoja, RCE 64740

12/03/21
Date



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CITY OF McFARLAND
DEPARTMENT OF PUBLIC WORKS
NOTICE TO BIDDERS

Sealed proposals for the work shown on the PLANS entitled:

CITY OF McFARLAND
DEPARTMENT OF PUBLIC WORKS
PROJECT PLANS FOR

DAVIS AVE. RECONSTRUCTION

Will be received at [City of McFarland Public Works Department attention City Clerk, 401 W. Kern Ave., McFarland, CA 93250](#), until **2:00 PM on February 3, 2022**. Bids will then be transported to and publicly opened at the McFarland Community Center and read aloud.

Bid forms for this work are entitled:

CITY OF McFARLAND
NOTICE TO BIDDERS &
SPECIAL PROVISIONS FOR

DAVIS AVE. RECONSTRUCTION

General work description:

The work to be done consists in general of but is not limited to cold-plane 3 inches of existing roadway surface, installation of hot mix asphalt, over cement treated subbase; reconstruction of x-gutters, curb and gutters, drive approaches and ADA curb ramps; installing traffic stripes, pavement markings, and roadside signs. Other items or details, not mentioned above, that are required by the typical sections, Standard Specifications or these special provisions shall be performed, placed, constructed or installed.

All work must be completed within **forty-five (45) working days** after the commencement date stated in the Notice to Proceed.

A pre-bid meeting is scheduled for **January 12, 2022** at 10:00 AM, at [McFarland Community Center located at 103 W. Sherwood Ave., McFarland, CA 93250](#). Bidder's attendance at this meeting will not be mandatory.

No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

Bids are required for the entire work described herein.

Bids **must** be submitted on the Bid Proposal form provided by the [City of McFarland](#). Each bid must be accompanied by one of the following forms of bidder's security equal to at least ten percent (10%) of the bid amount: (1) cash; (2) a cashier's check made payable to the [City of McFarland](#); (3) a certified check made payable to the [City of McFarland](#); or (4) a bidder's bond signed by a surety insurer who is licensed in California, made payable to the [City of McFarland](#). Each bidder must be a licensed contractor as required by law at the time the contract is awarded. The bidder who is awarded the project contract will be allowed pursuant to Public Contract Code Section 22300 to substitute securities for the payment of funds withheld under the contract. In addition, the successful bidder must furnish: (1) a faithful performance bond in the amount of one hundred percent (100%) of the contract price; and (2) a payment bond (also referred to as a labor and material bond) in the amount of one hundred percent (100%) of the contract price. All bonds must be in a form approved by the [City of McFarland](#) and must conform to California law (see Code of Civil Procedure section 995.010 et seq.). All documents submitted in compliance with the requirements of this bid package and the contract must be scannable and photocopyable. The City hereby invokes its protest right under California Code of Civil Procedure 995.660 for any proposed surety bond submitted in satisfaction of the requirements of this agreement if the submitted bond is not issued by an admitted surety rated **A-, VII** or better by Best's Rating Service.

Bids shall be sealed in an envelope marked [City of McFarland – DAVIS AVE. RECONSTRUCTION](#) addressed to the [City of McFarland Public Works Department attention City Clerk](#), and be delivered thereto on or before the day and hour set for the opening of bids in the notice inviting sealed bids, and shall bear the name of the bidder. It is the SOLE responsibility of the bidder to see that his bid is delivered and received in proper time. Any bid received after that scheduled closing time for receipt of bids shall be returned to the bidder unopened.

The contractor shall possess a **Class A** license at the time this contract is awarded. This contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code, Section 12990.

Inquiries or questions based on alleged patent ambiguity of the plans, specifications or estimate must be communicated as a bidder inquiry prior to bid opening. Any such inquiries or questions, submitted after bid opening, will not be treated as a bid protest. Technical questions should be directed to BHT Engineering, Inc., (Contact: Juan M. Pantoja, (661) 558-4641 or juan@bhtengineering.com).

All contract documents, plans, and specifications must be obtained from the City's Consultant, BHT Engineering, Inc., 218 S. H Street, Suite 201, Bakersfield, CA 93304 (Contact: Juan Pantoja, (662) 558-4641 or juan@bhtengineering.com). Plans and specifications will be available on [December 20, 2021](#), for electronic download at no cost. (Contact: Juan Pantoja, juan@bhtengineering.com) for access to electronic documents. Upon written request for the electronic bid documents, BHT Engineering, Inc. will add the contractor to the Registered Plan Holders List. The [City of McFarland](#) affirms that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the California Department of Industrial Relations and available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>. Future effective general prevailing wage rates which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

The U.S. Department of Transportation (DOT) provides a toll-free "hotline" service to report bid rigging activities. Bid rigging activities can be reported Mondays through Fridays, between 8:00 a.m. and 5:00 p.m., Eastern Time, Telephone No. 1-800-424-9071. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report these activities. The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially, and caller anonymity will be respected.

CITY OF McFARLAND, CITY CLERK

DATED _____

PUBLISH: *Bakersfield Californian*

IMPORTANT SPECIAL NOTICE

Attention is directed to [Section 5-1.17 “Supplemental Project Information,”](#) of these Special Provisions, regarding project requirements.

Department of Transportation: City Council of the [City of McFarland](#), State of California.

Engineer: [The Engineer](#) acting on behalf of the [City of McFarland](#), State of California, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Laboratory: The laboratories authorized by the Engineer to test materials and work involved in the contract.

State: The [City of McFarland](#)

Transportation Building - Sacramento: City Hall, [City of McFarland](#), State of California.

Standard Specifications: [The 2018 edition of the Standard Specifications](#) of the State of California, Department of Transportation. Any reference therein to the State of California or a State agency, office, or officer shall be interpreted to refer to the City or its corresponding agency, office, or officer acting under this contract.

CITY OF McFARLAND DEPARTMENT OF PUBLIC WORKS

SPECIAL PROVISIONS

SECTION 1. SPECIFICATIONS AND PLANS

The work embraced herein shall be done in accordance with the [2018 State Of California Department Of Transportation Standard Plans And Standard Specifications](#). [The 2018 State Of California Department Of Transportation Revised Standard Plans And Revised Standard Specifications](#). [The 2014 California Manual On Uniform Traffic Control Devices \(CA MUTCD\)](#), insofar as the same may apply and these special provisions. In case of conflict between the Standard Specifications and these special provisions, the special provisions shall take precedence over and be used in lieu of the conflicting portions.

1-1.01 AMENDMENTS TO THE 2018 STANDARD SPECIFICATIONS

Amendments to the [Standard Specifications](#) set forth in these special provisions shall be considered as part of the Standard Specifications for the purposes set forth in [Section 2-1.07 "Job Site and Document Examination", of the Standard Specifications](#). Whenever either the term "Standard Specifications is amended" or the term "Standard Specifications are amended" is used in the special provisions, the text or table following the term shall be considered an amendment to the Standard Specifications. In case of conflict between such amendments and the Standard Specifications, the amendments shall take precedence over and be used in lieu of the conflicting portions

The amendments that apply to this project are dated: [10/ 15 / 2021](#)

A copy of the amendments is available at: <https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications>

Or by contacting the [Engineer at \(661\) 558-4641 or \[juan@bhtengineering.com\]\(mailto:juan@bhtengineering.com\)](#).

1-1.02 DESCRIPTION OF WORK

[The work to be done consists in general of but is not limited to cold-plane 3 inches of existing roadway surface, installation of hot mix asphalt, over cement treated subbase; reconstruction of x-gutters, curb and gutters, drive approaches and ADA curb ramps; installing traffic stripes, pavement markings, and roadside signs. Other items or details, not mentioned above, that are required by the typical sections, Standard Specifications or these special provisions shall be performed, placed, constructed or installed.](#)

[Perform Roadway Finishing as specified in Section 22 of the Standard Specifications.](#)

In case of conflict between the Standard Specifications and these special provisions, the more restrictive of the two shall take precedence over and be used in lieu of the conflicting portions, unless otherwise directed by the engineer.

1-1.03 SCOPE OF WORK

(a) WORK TO BE DONE. The work to be done consists of furnishing all labor, materials, methods and processes, implements, tools and machinery, except as otherwise specified, which are necessary and required to construct and put in complete order for use in the proposed improvements designated in the Contract, and to leave the grounds in a neat condition.

(b) ALTERATION. By mutual consent in writing of the parties signatory to the Contract, alterations or deviation, increases or decreases, additions or omissions, in the plans and specifications, may be made and the same shall in no way affect or make void the Contract. The City reserves the right to increase or decrease the quantity of any item or portion of the work, or to omit portions of the work as may be deemed necessary or expedient by the Engineer.

(c) EXTRA WORK. New and unforeseen work will be classed as extra work when such work cannot be covered by any of the various items or combination of items for which there is a bid price.

The Contractor shall do no extra work except upon written order from the Engineer. For such extra work the Contractor shall receive payment as previously agreed upon in writing, or he shall be paid on force account.

(d) REMOVAL OF OBSTRUCTIONS. The Contractor shall remove and dispose of all structures, debris, or other obstructions of any character of the construction of the street or road, if and as required by the Engineer.

The Contractor shall remove and dispose of all trees designated by the Engineer as obstructions to the proper completion of the work.

The removing and disposing of all obstructions to the prosecution of the Contract, unless otherwise specified, shall be considered as included in the various items of Contract work and no additional compensation will be allowed therefor.

(e) ROADWAY FINISHING. Contractor shall do minor grading to back edges of roadway to eliminate vertical separation and improve roadside drainage by creating shallow swales for transportation of storm runoff. Upon completion, and before making application for acceptance of the work, the Contractor shall clean the street or road, borrow pits, and all ground occupied by him in connection with the work; remove all rubbish, excess materials, temporary structures, and equipment; and all parts of the work shall be left in a neat and presentable condition.

1-1.04 CONTROL OF WORK

Attention is directed to [Section 5 of the Standard Specifications](#).

(a) ENGINEER. The Engineer shall decide any and all questions which may arise as to the quality or acceptability of materials furnished and work performed, and as to the manner of performance and rate of progress of the work; any questions which arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the Contract on the part of the Contractor; and all questions as to claims and compensation.

The Engineer's decision shall be final, he shall have executive authority to enforce and make effective such decisions, and orders as the Contractor fails to carry out promptly.

(b) PLANS. All authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made of any plan or drawing after the Engineer has approved the same, except by direction of the Engineer.

Working drawings or plans for any structure not included in the plans furnished by the Engineer shall be approved by the Engineer before and work involving these plans shall be performed, unless approval is waived in writing by the Engineer.

It is mutually agreed, however, that the approval by the Engineer of the Contractor's working plan does not relieve the Contractor of any responsibility for accuracy of dimensions and details, and that the Contractor shall be responsible for agreement and conformity of this working plans with the approved plans and specifications.

(c) CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS. Finished surfaces in all cases shall conform to the lines, grades, cross-sections, and dimensions shown on the approved plans. Deviations from the approved plans, as may be required by the exigencies of construction will be determined in all cases by the Engineer and authorized in writing.

(d) COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS. These specifications, the plans, special provisions, and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be cooperative, to describe, and to provide for a complete work. Plans shall govern over specifications: special provisions shall govern over both specifications and plans. City specifications shall govern over State Standard Specifications.

(e) INTERPRETATION OF PLANS AND SPECIFICATIONS. Should it appear that the work to be done, or any matter relative thereto, is not sufficiently detailed or explained in these specifications, plans, and the special provisions, the Contractor shall apply to the Engineer for such explanation or interpretation as part of the Contract, so far as may be consistent with the intent of the original specifications. In the event of doubt or questions relative to the true meaning of the specifications, reference shall be made to the City Council, whose decision there on shall be final. **In the event of any discrepancy between any drawings and the figures written thereon, the figures shall be taken as correct.**

(f) SUPERINTENDENCE. Whenever the Contractor is not present on any part of the work where it may be desired to give direction, orders will be given by the Engineer in writing and shall be received and obeyed by the superintendent or foreman in charge of the particular work in reference to which orders are given.

(g) LINES AND GRADES. All distances and measurements are given and will be made in a horizontal plane. Grades are given from the top of stakes or nails, unless otherwise noted on the plans.

Three consecutive points shown on the same rate of slope must be used in common, in order to detect any variation from a straight grade, and in case any such discrepancy exists, it must be reported to the Engineer. If such a discrepancy is not reported to the Engineer, the Contractor shall be responsible for any error in the finished work.

The Contractor shall preserve all stakes and points set for lines, grades, or measurements of the work in their proper places until authorized to remove them by the Engineer. The Contractor shall pay all expenses incurred in replacing stakes that have been removed without proper authority.

(h) INSPECTION. The Engineer shall at all times have access to the work during construction, and shall be furnished with every reasonable facility to ascertain full knowledge in regards to the progress, workmanship, and character of materials used and employed in the work.

Whenever the Contractor varies the period during which work is carried on each day, he shall give due notice to the Engineer, so that proper inspections may be provided. Any work done in the absence of the Engineer will be subject to rejection. The Contractor shall be required to pay overtime rates for inspection outside of normal working hours or on weekends. Compensation for inspection overtime shall be deducted from the contractor's retention payment.

The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill the Contract as prescribed. Defective work shall be made good, and unsuitable materials may be rejected, notwithstanding the fact that such defective work and unsuitable materials have been previously overlooked by the Engineer and accepted or estimated for payment.

Projects financed in whole or in part with State, Federal or other funding agencies, shall be subject to inspection at all times by the [Project Engineer](#), or his agents, and representatives of the funding agency.

(i) REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK. All work which is defective in its construction or deficient in any of the requirements of these specifications shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed for such corrections.

(j) FINAL INSPECTION. When the work specified by this contract has been completed, the contractor shall inform the Engineer. A final inspection shall then be made. If all work has been completed satisfactorily the [Project Engineer](#) shall notify the [City Council and the City Council](#) shall cause a "NOTICE OF COMPLETION" to be filed and recorded with the Kern County Recorder.

1-1.05 CONTROL OF MATERIALS

Attention is directed to [Section 6 of the Standard Specifications](#).

Any work done beyond the lines and grades shown on the plans or established by the Engineer, or any extra work done without written authority, will be considered as unauthorized and will not be paid for.

Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this Article, the Engineer shall have the authority to cause defective work to be remedied, or removed and replaced, and unauthorized work to be removed, and to deduct the costs thereof from any moneys due or to become due the Contractor.

(a) SAMPLES AND TESTS. At the option of the Engineer, the source of supply of each of the materials shall be approved by the Engineer before delivery is started and before such material is used in the work. Representative preliminary samples of the character and quality prescribed shall be submitted by the Contractor or producer of all materials to be used in the work, for testing or examination as desired by the Engineer.

All tests of materials furnished by the Contractor shall be made in accordance with commonly recognized standards of national organizations, and such special methods and tests as are prescribed in the specifications.

The Contractor shall furnish such samples of materials as are requested by the Engineer, without charge. No material shall be used until the Engineer has approved it. Samples will be secured and tested whenever necessary to determine the quality of materials.

(b) DEFECTIVE MATERIALS. All materials not conforming to the requirements of these specifications shall be considered as defective, and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the work unless otherwise permitted by the Engineer. No rejected material, the defects of which have been subsequently corrected, shall be used until approved in writing by the Engineer.

Upon failure on the part of the Contractor to comply with any order of the Engineer made under the provisions of this article, the Engineer shall have authority to remove and replace defective material and deduct the cost of removal and replacement from any moneys due or to become due the Contractor.

1-1.06 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Attention is directed to [Section 7 of the Standard Specifications](#).

(a) LAWS TO BE OBSERVED. The Contractor shall keep himself fully informed of all existing and future county, State and National laws and all municipal ordinances and regulations of the City which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.

(b) HOURS OF LABOR. The Contractor shall forfeit, as penalty to the City, twenty-five dollars (\$25.00) for each laborer, workman or mechanic employed in the execution of the Contract by him, or by any subcontractor under him, upon any of the work here-in-before mentioned, for each calendar day during which said laborer, workman, or mechanic is required or permitted to labor in violation of the provisions of Section 1810 to Section 1815, inclusive, of the Labor Code.

(c) The Contractor shall comply with Section 6705 of the Labor Code that provides that the Contractor's responsibility shall be as follows:

If the Contract price for the project includes an expenditure in excess of twenty-five thousand dollars (\$25,000) for excavation of any trench or trenches five feet or more in depth, the Contractor or his subcontractor shall not begin any trench excavation unless a detailed plan, showing the design of shoring, bracing, sloping or other provisions to be made for worker protection during the excavation of the trench, has been submitted by the Contractor to the Engineer and the detailed plan has been approved by the Engineer.

If such plan varies from the shoring system standards established by the construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered Civil or Structural Engineer.

Nothing in this section shall be deemed to allow the use of shoring, sloping, or protective system less effective than that required by the Construction Safety Orders of the Division of Industrial Safety.

Nothing in this section shall be construed to impose tort liability on the City, or any of the City employees, State of California, Engineer, or any of the Engineer's authorized representatives or any employee thereof.

The terms "public works" and "awarding body," as used in this section, shall have the same meaning as in Labor Code Sections 1720 and 1722 respectively.

(d) EQUAL EMPLOYMENT OPPORTUNITY. The contractor is required to have an E.E.O. policy that prohibits discrimination and provides for affirmative action in employment practices. The Contractor shall adopt the following statement as his operating policy:

1. It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment without regard to their, Race, religion, sex, color, nation origin, age or disability. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on the job training. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, or national origin.
3. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other Contract or understanding, a notice to be provided advising the labor union or worker's representative of the Contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Contractor will comply with all provisions of Executive Order No. 11246 as amended by Executive Order 11373, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The contractor is required to have a designated EEO officer who has the responsibility and authority to administer the contractor's EEO policy.
6. All of the contractor's employees who have an active role in hiring, supervision, or advancement of employees are required to be aware of and implement the contractor's EEO policy. In addition it is required that employees, including applicants and potential employees, be informed of the contractor's EEO policy through posted notices, posters, handbooks, and employee meetings.
7. The contractor shall not discriminate in his recruitment practices and should make an effort to identify sources of potential minority and women employees.
8. The Contractor is required to periodically review the project sites, wages, personnel actions, etc., for evidence of discriminatory treatment. The contractor is to promptly investigate all alleged discrimination complaints.
9. The contractor is required to advise employees and applicants of training programs available and to assist in the improvement of the skills of minorities, women, and applicants, through such programs.

10. The contractor is not, and cannot be, required to hire Union employees; however, if the contractor relies on unions as a source of employees, the contractor is encouraged to obtain cooperation with the unions to increase opportunities for minorities and women. The contractor should use his best efforts to incorporate an EEO clause into Union Agreements.
11. The contractor's EEO policy also pertains to his selection of subcontractors, including material suppliers and equipment leasing companies. Contractors are encouraged to use the Disadvantaged Business Enterprise's (DBE's) or other subcontractors that employ minorities and women. Furthermore, contractors are required to exercise their best efforts to ensure that subcontractors comply with the EEO requirements.
12. Records that document compliance with the EEO policy are to be prepared and retained by the contractor for a period of three (3) years after project completion. These records should include the numbers of minority, women, and non-minority employees in each work classification on the project; and the progress and effort being made to increase the employment opportunities for minorities and women.
13. The contractor shall issue copies of all EEO policy documentation, pertaining to this contract project, to the Engineer prior to issuance of the "NOTICE OF COMPLETION". Non-Compliance with the EEO Specifications may be considered a breach of contract for which payment may be withheld or the contract canceled. The State Compliance staff may conduct interviews and make non-compliance determinations. In addition, reviews by the Office of Federal Contract Compliance Programs (OFCCP), may affect the contractors eligibility to participate in Federal-Aid Programs.

(e) NONSEGREGATED FACILITIES. The intent of this provision, also derived from Title VI, is to ensure that past discriminatory practices of providing segregated facilities or prohibiting minorities access to facilities are eliminated.

(f) PREVAILING WAGE. The Contractor shall, as a penalty to the City, forfeit twenty-five Dollars (\$25.00) for each calendar day or portion thereof, for each workman paid less than the stipulated prevailing rates for such work or craft in which such workman is employed under this Contract or by any subcontractor under him, in violation of the provisions of Section 1770 to Section 1780, inclusive of Labor Code.

The contractor shall submit weekly-certified payroll reports to the Engineer. The contractor is also responsible for all subcontractors weekly-certified payroll reports and shall submit copies of those reports to the Engineer. All reports shall be verified for accuracy as to hours worked, classification, wage rate, per Diem wages. Discrepancies shall be brought to the attention of the contractor for correction. Failure of the contractor to provide weekly-certified payroll records for his employees, Certified Payroll records of subcontractors shall be considered a breach of contract for which payment may be withheld or the contract canceled. The State Compliance staff may conduct interviews and make non-compliance determinations. In addition, reviews by the Office of Federal Contract Compliance Programs (OFCCP), may affect the contractors eligibility to participate in Federal-Aid Programs.

Copies of the prevailing rate or per diem wages, for each craft, classification of type of workman needed to execute the Contract, are on file in the [Office of the Engineer](#) and shall be made available to any interested party on request.

(g) APPRENTICES. All Contractors and subcontractors shall comply with the provisions of the California Labor Code Sections 1777.5, 1777.6,*1777.7 relating to the employment of apprentices, per [Section 7-1.02K\(4\) of the Standard Specifications](#).

(h) REGISTRATION OF CONTRACTORS. Before submitting bids, Contractors shall be licensed in accordance with the provisions of Section 7055 of the Business & Professions Code.

(i) PERMITS AND LICENSES. The Contractor shall procure all permits and licenses, including a [City Business License](#) for the general and any subcontractors, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

(j) PATENTS. The Contractor shall assume all responsibilities arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the work.

(k) PUBLIC CONVENIENCE AND SAFETY. The Contractor shall so conduct his operations as to cause the least possible obstruction and inconvenience to public traffic. Unless other existing streets are stipulated in the special provisions to be used as detours, all traffic shall be permitted to pass through the work site. Construction area signs shall be provided in accordance with [Section 12 "Temporary Traffic Control", of the Standard Specifications](#).

Residents along the road or street shall be provided passage as far as practicable. Convenient access to driveways, houses and buildings along the road or street shall be maintained and temporary crossings shall be provided and maintained in good condition. Not more than one cross or intersecting street or road shall be closed at any time without the approval of the Engineer.

The Contractor shall furnish, erect, and maintain such fences, barriers, lights, and signs as are necessary to give adequate warning to the public at all times that the improvement is under construction and of any dangerous condition to be encountered as a result thereof, and he shall also erect and maintain such warnings as directional signs as may be furnished by the City.

Contractor shall place oil-sand ramps at the intersection of all cross streets and header cuts produced by cold plane operations, where vertical separation of pavements exceeds 25 mm (1"). Ramps are to be at least 1 meter long for every 50 mm (2") of vertical separation.

Full compensation for conforming to the provisions of this [Section \(k\)](#) shall be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefor.

ACCIDENT PREVENTION:

1. The provisions of this section require the contractor to comply with all applicable Federal, State, and local laws governing safety, health, and sanitation. The contractor is required to provide all safeguard's, safety devices, and protective equipment, and is required to take such actions as are deemed necessary, to protect the life and health of employees and the safety of the public and property.
2. Furthermore the contractor and subcontractor may not require or permit a laborer or mechanic to perform work under conditions, which are unsanitary, hazardous, or dangerous to health or safety as determined by construction safety standards.
3. This section specifically sets forth the right of entry of Department of Labor representatives to any site of contract performance for the inspection or investigation of compliance with OSHA standards.

(l) **FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS.** This specifically provides that "willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal Law" and requires that the "False Statements" poster. [Form FHWA-1022](#), shall be posted on the project.

(m) **RESPONSIBILITY FOR DAMAGE.** The City, the City Council, or the Engineer or his representatives shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or for any material or equipment used in performing the work, or for injury or damage to any person or persons, either workmen or the public; or for damage to adjoining property caused by the negligence of Contractor or one of his subcontractors during the progress of the work at any time before final acceptance.

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the City and its elected officials, consultants, agents, and employees from and against all claims, damages, losses and expenses, direct, indirect, or consequential (including but not limited to fees and charges of architects, engineers, attorneys, and other professionals and court and arbitration costs) arising out of or resulting from performance of the work, but not from the sole negligence or willful misconduct of the City; provided, that any such claim damage, loss or expense (a) is attributable to bodily injury, sickness, disease, or death or injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and (b) is caused in whole or in part by any negligent act or omission of the Contractor, any subcontractor, or any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether a party indemnified hereunder or arises by or imposed by law regardless of the negligence of any such party.

(n) **CONTRACTOR'S RESPONSIBILITY FOR WORK.** Until the formal acceptance of the work by the Engineer, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by and of the above causes before final acceptance and shall bear the expense thereof, except such injuries or damages occasioned by acts of the Federal Government or the public enemy.

(p) **NO PERSONAL LIABILITY.** Neither the City Council, the Engineer, nor any other officer or authorized assistant or agent shall be personally responsible for any liability arising under the Contract.

(q) **RESPONSIBILITY OF CITY.** The City shall not be held responsible for the care or protection of any material or parts of the work prior to final acceptance, except as expressly provided in these specifications.

1-1.07 PROSECUTION AND PROGRESS

(A) **SUBLETTING AND ASSIGNMENT.** The Contractor shall give his personal attention to the fulfillment of the Contract and shall keep the work under his control.

Subcontractors will not be recognized as such, and all persons engaged in the work of construction will be considered as employees of the Contractor, and their work shall be subject to the provisions of the Contract and specifications. Where a portion of the work sublet by the Contractor is not being prosecuted in a manner satisfactory to the Project Engineer, the subcontractor shall be removed immediately on the requisition of the [Project Engineer](#) and shall not be employed on the work.

(B) The Contractor shall diligently prosecute the work to completion before the expiration of [45 working days](#).

(C) **CHARACTER OF WORKMEN.** If any subcontractor or person employed by the Contractor shall fail or refuse to carry out the directions of the Engineer or shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the requisition of the Engineer, and such person shall not again be employed on the work.

(D) TIME OF COMPLETION AND LIQUIDATED DAMAGES. It is agreed by the parties to the Contract that in case all the work called for under the Contract is not completed before or upon the expiration of the time limit as set forth in these specifications, damage will be sustained by the City, and that it is and will be impracticable to determine the actual damage which the City will sustain in the event of and by reason of such delay, and it is therefore agreed that the Contractor will pay to the City in the sum of **Seven Hundred and Fifty Dollars (\$750.00)** per day for each and every day's delay beyond the time prescribed to complete the work; and the Contractor agrees to pay such liquidated damages as herein provided, and in case the same are not paid, agrees that the City may deduct the amount thereof from any money due or that may become due the Contractor under the Contract.

It is further agreed that in case the work called for under the Contract is not finished and completed in all parts and requirements within the time specified the City Council shall have the right to extend the time for completion or not, as may seem best to serve the interest of the City; and if it decides to extend the time limit for the completion of the Contract, it shall further have the right to charge to the Contractor, his heirs assigns or sureties, and to deduct from the final payment for the work all or any part, as it may deem proper, of the actual cost of engineering, inspection, superintendent, and other overhead expenses which are directly chargeable to the Contract, and which accrue during the period of such extension, except that the cost of final surveys and preparation of final estimate shall not be included in such charges.

The Contractor shall not be assessed with liquidated damages nor the cost of engineering and inspection during any delay in the completion of work caused by acts of God or of the public enemy, acts of the City, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes; provided that the Contractor shall within ten days from the beginning of any such delay, notify the Engineer in writing of the causes of delay, who shall ascertain the facts and the extent of the delay, and his findings of the facts thereon shall be final and conclusive.

In accordance with the provisions of Section 4215 of the California Government Code, the City shall assume the responsibility, between the parties to this Contract for the timely removal, relocation, and protection of existing main or trunk line utility and/or pipeline facilities located on the work site, if such facilities are not identified by the City in the plans and specifications made a part of these Contract documents. The City will not assess liquidated damages for delay in completion of the work, when such delay was caused by the failure of the City to provide for removal or relocation of such facilities. However, nothing herein shall be deemed to require the City to indicate the presence of existing service laterals or appurtenances whenever the presence of such facilities on the site of the work that can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes.

(E) SUSPENSION OF CONTRACT. If at any time in the opinion of the City Council, the Contractor has failed to supply an adequate working force, or material of proper quality or has failed in any other respect to prosecute the work with the diligence and force specified an intended and by the terms of the Contract, as directed by the Engineer, within the time specified in such notice, the City Council in any such case shall have the power to suspend the operation of the Contract. Upon receiving notice of such suspension, the Contractor's control shall terminate, and thereupon the City Council, or its duly authorized representative, may take possession of all or any part of the Contractor's materials, tools, equipment, and appliances upon the premises, and use the same for the purpose of completing said Contract, and hire such force and buy or rent such additional machinery, tools, appliances and equipment, and buy such additional materials and supplies at the Contractor's expense as may be necessary for the proper conduct of the work and for the completion thereof; or may employ other parties to carry the Contract to completion, employ the necessary workmen, substitute other machinery or materials, and purchase the materials contracted for, in such manner as the City Council may deem proper; or the City Council may annul and cancel the Contract and re-let the work or any part thereof. Any excess of cost arising there from over and above the Contract price will be charged against the Contractor and his sureties, who will be liable therefore. In the event of such suspension, all money due the Contractor or retained under the terms of the Contract shall be forfeited to the City; but such forfeiture will not release the Contractor or his sureties from liability or failure to fulfill the Contract. The Contractor and his sureties will be credited with the amount of money so forfeited toward any excess of cost over and above the Contract price, arising from the suspension of the operations of the Contract and the completion of the work by the City as above provided, and the Contractor will be so credited with any surplus remaining after all just claims for such completion have been paid.

In the determination of the question whether there has been any such non-compliance with the Contract as to warrant the suspension or annulment thereof, the decision of the City Council shall be binding on all parties to the Contract.

(F) RIGHT OF WAY. The City will provide the right of way for the work to be constructed. The Contractor shall make his own arrangements, and pay all expenses for additional area required by him outside of the limits of right of way unless otherwise provided in the Special Provisions. The contractor shall, if additional area for storage of equipment and materials outside of the right of way is required, obtain written permission from the property owner. A copy of that written permission shall be submitted to the Engineer.

1-1.08 MEASUREMENT AND PAYMENT

(A) EXTRA AND FORCE ACCOUNT WORK. Extra work as herein before defined, when ordered and accepted, shall be paid for under a written work order in accordance with the terms therein provided. Payment for extra work will be made at the unit price or lump sum previously agreed upon by the Contractor and the Engineer, or by force account.

If the work is done on force account, the Contractor shall receive the actual cost of all material furnished by him as shown by his paid vouchers, **plus 15 percent markup**. For all equipment and terms that are necessary he shall receive the current prices in the

locality, which shall have been previously determined and agreed to in writing by the Engineer and by the Contractor **plus 15 percent markup**. However, that the City reserves the right to furnish such materials required as it deems expedient, and the Contractor shall have no claim for profit on the cost of such materials. The price paid for labor shall include all payments imposed by State and Federal laws and for all payments made to, or on behalf of, the workmen, other than actual wages **plus 35 percent markup**.

All extra work and force account shall be adjusted daily upon report sheets, prepared by the Contractor, submitted to the Engineer, and signed by both parties, which daily reports shall thereafter be considered the true record of extra work or force account work done.

In the event that the Contractor does not submit the required extra work daily report sheet to the Engineer on the day the extra work was performed, the Contractor shall submit said report within 15 days after the work was performed. (15-day period does not include holidays, or weekends). If the Engineer has not received said report within the specified 15 day time period, no compensation for the extra work / force account, shall be allowed, except by approval of the Engineer, and the City Council of the City.

(B) MEASUREMENT AND PAYMENT. Attention is directed to **Section 9 "Payment", of the Standard Specifications**

PARTIAL PAYMENTS. The City, once each month, shall cause to be prepared a Progress Pay Estimate. The Estimate shall include the total value of the work done to date.

The City shall retain **five percent (5%)** of the amount of the Estimate and, after deducting all previous payments and all other sums to be kept or retained under the provisions of this Contract, pay to the Contractor the balance due. Payment will normally be made shortly after the third Tuesday of each month.

(C) FINAL PAYMENT. The Engineer shall, after completion of work, make a Final Estimate of the amount payable to the Contractor, including an itemization, segregated as to Contract item quantities, extra work and any other basis for payment. The City shall retain **five percent (5%)** of the amount of this Final Estimate.

(D) RETENTION PAYMENT. The retention payment shall be due and payable thirty five (35) days from the date the "NOTICE OF COMPLETION" is recorded at the County Recorder's Office, provided no claims are filed against the project.

It is mutually agreed between the parties to the Contract that no certificate given or payments made under Contract, except the final certificate or retention payment, shall be conclusive evidence of the performance of the Contract, either wholly or in part, against any claim of the party of the first part, and no payment shall be construed to be an acceptance of any defective work or improper materials.

And the Contractor further agrees that the payment of the final amount due under the Contract, and the adjustment and payment for any work done in accordance with any alterations of the same, shall release the City, the City Council, and the Engineer from any and all claims of liability on account of work performed under the Contract or any alteration thereof.

(E) SUBSTITUTION OF SECURITIES. Whenever herein provision is made for withholding or retention of moneys to ensure performance, substitution of an equivalent amount (value) of securities shall be permitted in accordance with the provisions and requirements of Government Code Section 4590.

1-1.09 INSURANCE

Contractor shall procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the Contractor's bid.

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Offices form No. G1 0002 (Ed. 1/73) covering Comprehensive General Liability and Insurance Services Office form number GL 0404 covering Broad Form Comprehensive General Liability; or Insurance Services Office Commercial General Liability coverage ("Occurrence" form CG 0001).
2. Insurance Services Office form number CA 0001 (Ed. 1/78) covering Automobile Liability, Code 1 "any auto" and endorsement CA 0025.
3. Workers' Compensation insurance as required by the Labor Code of the State of California and Employers Liability Insurance.

B. Minimum Limits of Insurance

Contractor shall maintain limits no less than:

1. General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage.
2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage.
2. Workers' Compensation and Employers Liability: Workers' Compensation limits as required by the Labor Code of the State of California and Employers Liability limits of \$1,000,000 per accident.

C. Deductibles and Self-Insured Retention

Any deductibles or self-insured retention must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the City, its officers, officials and employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

D. Other Insurance Provisions

1. General Liability and Automobile Liability Coverage

- a. The City, its officers, officials, employees, *consultants* and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees or volunteers.
- b. The Contractor's insurance coverage shall be primary insurance that respects the City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
- c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its officers, officials, employees or volunteers.
- d. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. Worker's Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, employees, *consultants* and volunteers for losses arising from work performed by the Contractor for the City.

3. All Coverage

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after ten (10) days' prior written notice has been given to the City prior to cancellation of this policy for nonpayment of premium and thirty (30) days' written notice has been given to the City prior to cancellation of this policy for any other reason.

E. Acceptability of Insurers

Insurance is to be placed with insurers with a Best's rating of no less than **A-:VII.**

F. Verification of Coverage

Contractor shall furnish the City with certificates of insurance and with original endorsements affecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by the insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms provided by the City and are to be received and approved by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies at any time.

G. Subcontractors

Contractors shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

H. Workers' Compensation

In accordance with the provisions of Section 1860 of the California Labor Code, the Contractor's attention is directed to the requirement that in accordance with the provisions of Section 3700 of the California Labor Code, every Contractor will be required to secure the payment of compensation of his or her employees. In accordance with the provisions of Section 1861 of the California Labor Code, each Contractor to whom a public works Contract is awarded shall sign and file with the City the following certification prior to performing the work: "I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract."

I. Assignment of Rights

Pursuant to Section 4552 of the California Government Code, in submitting a bid to the City, the bidder offers and agrees that the bid is accepted, it will assign to the City all rights, title and interests in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act [Chapter 2, (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code], arising from purchase of goods, materials or services by the bidder for sale to the City pursuant to the bid. Such assignment shall be made and become effective at the time the City tenders final payment to the bidder.

J. Termination

The City may terminate this Contract, without cause, by giving seven (7) days prior written notice to the Contractor, and in such event, the City will pay the Contractor for that portion of the Contract price, less the aggregate of previous payments, and able to allocate to the work completed as of the date of termination. The City will also reimburse the Contractor for all costs necessarily incurred prior to the stoppage of the work and paid directly by the Contractor, not including overhead, general expenses or profit. The City will not be responsible to reimburse the Contractor for any continuing contractual commitments to said Contractors or material-suppliers or penalties or damages for canceling such contractual commitments inasmuch as the Contractor shall make all subcontractors and other commitments subject to this provision.

K. Attorney's Fees

In the event any legal action is commenced to enforce or interpret the terms or conditions of this Contract, the prevailing party shall, in addition to any costs or other relief, be entitled to its reasonable attorney's fees.

1-1.10 ORDER OF WORK

The Contractor shall provide the City with a schedule of work prior to beginning work. This schedule shall be based on working from 7:00 AM to 3:30 PM Monday through Friday.

SECTION 2. BIDDING

2-1.01 GENERAL

The bidder's attention is directed to the provisions in [Section 2, "Bidding," of the Standard Specifications](#) and these special provisions for the requirements and conditions, which the bidder must observe in the preparation of the [Bid package](#) and the submission of the bid.

Bid protests are to be delivered to the following address: [BHT Engineering, Inc., 218 S. "H" Street, Suite 201, Bakersfield, CA 93304.](#)

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of Title 49 CFR (Code of Federal Regulations) part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

SB 854 COMPLIANCE/CONTRACTOR REGISTRATION

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).

The Contractor is still responsible to submit all certified payroll records to the City.

SB 219 COMPLIANCE

This project is subject to Assembly Bill 219.

Amendments to Assembly Bill 219 became effective on July 1, 2016. The amendments made the following changes to Labor Code section 1720.9:

- A company hauling or delivering ready-mix concrete for a public works contract shall:
 1. Register as a public works contractor.
 2. Submit a certified copy of the payroll records required by subdivision (a) of Section 1776 to the party that engaged the company and to the general contractor within five working days after the employee has been paid, accompanied by a written time record that shall be certified by each driver for the performance of job duties.
 3. Submit payroll online to DIR using its electronic certified payroll reporting system.
- Nothing in section 1720.9 shall cause any company to be treated as a contractor or subcontractor for any purpose other than the application of this chapter of the Labor Code.

Bid Opening

The City publicly opens and reads bids at the time and place shown on the Notice to Bidders.

Bid Rigging

The U.S. Department of Transportation (DOT) provides a toll-free hotline to report bid rigging activities. Use the hotline to report bid rigging, bidder collusion, and other fraudulent activities. The hotline number is (800) 424-9071. The service is available 24 hours 7 days a week and is confidential and anonymous. The hotline is part of the DOT's effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General.

Subcontractor List

Attention is directed to [Section 2-1.10 "Subcontractor List", of the Standard Specifications](#). On the Subcontractor List, list each subcontractor to perform work in an amount in excess of 1/2 of 1 percent of the total bid or \$10,000, whichever is greater (Pub Cont Code § 4100 et seq.).

A sheet for listing the subcontractors is included in the [Bid book](#).

For each subcontractor listed, the Subcontractor List form must show:

1. Business name and the location of its place of business.
2. California contractor license number for a non-federal-aid contract.

3. Public works contractor registration number.
4. Portion of work it will perform. Show the portion of the work by:
 - 4.1. Bid item numbers for the subcontracted work
 - 4.2. Percentage of the subcontracted work for each bid item listed
 - 4.3. Description of the subcontracted work if the percentage of the bid item listed is less than 100 percent

Bidder's Security

Submit your bid with one of the following forms of bidder's security equal to at least 10 percent of the bid:

1. Cash
2. Cashier's check
3. Certified check
4. Bidder's bond signed by a surety insurer who is licensed in California

If using a bidder's bond, you may use the form in the Bid book. If you do not use the form in the Bid book, use a form containing the same information.

Non-collusion Affidavit

In conformance with Public Contract Code Section 7106, a Non-collusion Affidavit is included in the [Bid book](#). Signing the [Bid book](#) shall also constitute signature of the Non-collusion Affidavit.

Bid Submittal

Submit your bid:

1. Under sealed cover
2. Marked as a bid
3. Identifying the contract number and the bid opening date

Submit your bid to the [Office of the City Clerk, 401 West Kern Ave., McFarland, CA 93250](#).

Failure to submit the forms and information as specified may result in a nonresponsive bid.

If an agent other than the authorized corporation officer or a partnership member signs the bid, file a Power of Attorney with the City either before opening bids or with the bid. Otherwise, the bid may be nonresponsive.

Failure of the bidder to fulfill the requirements of the Special Provisions for submittals required to be furnished after bid opening, including but not limited to escrowed bid documents, where applicable, may subject the bidder to a determination of the bidder's responsibility in the event it is the apparent low bidder on a future public works contracts.

2-1.02 JOB SITE AND DOCUMENT EXAMINATION

Examine the job site and bid documents.

Bid submission is your acknowledgment that you have examined the job site and bid documents and are satisfied with:

1. General and local conditions to be encountered
2. Character, quality, and scope of work to be performed
3. Quantities of materials to be furnished
4. Character, quality, and quantity of surface and subsurface materials or obstacles
5. Requirements of the contract

SECTION 3. CONTRACT AWARD AND EXECUTION

3-1.01 GENERAL

The bidder's attention is directed to the provisions in [Section 3, "Contract Award and Execution," of the Standard Specifications](#) and these special provisions for the requirements and conditions concerning contract award and execution.

CONTRACT AWARD: If the City awards the contract, the award is made to the lowest responsible and responsive bidder within [60 days after bid opening](#). The City may extend the specified award period if the bidder agrees.

The contract shall be executed by the successful bidder and shall be returned, together with the contract bonds, to the [City](#) so that it is received within 10 days, not including Saturdays, Sundays and legal holidays, after the bidder has received the contract for execution. Failure to do so shall be just cause for forfeiture of the proposal guaranty. The executed contract documents shall be delivered to the following address: [Office of the Project Engineer, 218 S. "H" Street, Suite 201, Bakersfield, CA 93304](#).

The Bidder's security may be forfeited for failure to execute the contract within the time specified (Pub Cont Code §§ 10181, 10182, and 10183).

3-1.02 CONTRACTOR REGISTRATION

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

3-1.03 CONTRACT BONDS (PUB CONT CODE §§ 10221 AND 10222)

Attention is directed to [Section 3-1.05, "Contract Bonds," of the Standard Specifications](#) and these special provisions.

The successful bidder must furnish 2 bonds:

1. Payment bond to secure the claim payments of laborers, workers, mechanics, or materialmen providing goods, labor, or services under the Contract. This bond must be equal to at least [100 percent](#) of the total bid.
2. Performance bond to guarantee the faithful performance of the Contract. This bond must be equal to at least [100 percent of the total bid](#).

The City provides bond forms to the successful bidder.

3-1.04 CONTRACTOR LICENSE

~~For a federal aid contract, the Contractor must be properly licensed as a contractor from contract award through Contract acceptance (Pub Cont Code § 10164).~~

For a non-federal-aid contract:

1. Contractor must be properly licensed as a contractor from bid opening through Contract acceptance (Bus & Prof Code § 7028.15)
2. Joint venture bidders must obtain a joint venture license before contract award (Bus & Prof Code § 7029.1)

3-1.05 SUMMARY OF PUBLIC CONTRACT CODE § 9204

A "claim" is a separate demand on the City by a contractor on a public works project and sent by registered mail or certified mail with return receipt requested, for one or more of the following:

- A time extension, including relief from penalties for delay;
- Payment by the City of money damages under the terms of the contract;
- Payment of an amount that is disputed by the City.

Initial Review

The claim must be supported by appropriate documentation. The City has 45 days within which to review the claim and provide the contractor with a written statement identifying the disputed and undisputed portions of the claim. If the City does not issue a written statement, the claim is deemed rejected in its entirety. The City will pay any undisputed portion of the claim within 60 days of issuing the statement.

Meet & Confer

If the contractor disputes the City's written response, or if the City does not issue one, the contractor may request in writing an informal conference to meet and confer for possible settlement of the claim. The City will schedule the meet and confer conference within 30 days of this request and provide a written statement identifying the remaining disputed and undisputed portions of the claim within 10 business days of the meet and confer. The City will pay the undisputed portion within 60 days of issuing this statement.

Mediation

With respect to any disputed portion remaining after the meet and confer, the City and contractor must submit the matter to nonbinding mediation, agree to a mediator within 10 business days after issuing the written statement, and share mediation costs equally. If mediation is unsuccessful, then the terms of the public works agreement and applicable law will govern resolution of the dispute.

Miscellaneous Provisions

Amounts not paid by the City in a timely manner bear interest at 7% per annum. Subcontractors may submit claims via this procedure through the general contractor. The City and contractor may waive the requirement to mediate, but cannot otherwise waive these claim procedures.

SECTION 4. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

Attention is directed to the provisions in [Section 8-1.04, "Start of Job Site Activities,"](#) in [Section 8-1.05, "Time,"](#) and in [Section 8-1.10, "Liquidated Damages," of the Standard Specifications](#) and these special provisions.

The Contractor shall begin work within 15 calendar days after the contract has been approved by the [CITY OF McFARLAND](#) and a [NOTICE TO PROCEED](#) has been issued.

Submit a notice 72 hours before starting job site activities.

This work shall be diligently prosecuted to completion before the expiration of **45 WORKING DAYS** beginning on the fifteenth calendar day after the **Notice to Proceed** has been issued.

The Contractor shall pay to the **CITY OF McFARLAND** the sum of **\$750 per day**, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

SECTION 5. GENERAL

5-1.01 JOB SITE AND DOCUMENT EXAMINATION, CONTRACT, AND SITE OF WORK

Attention is directed to the provisions in **Section 2-1.07 "Job Site and Document Examination"**, of the **Standard Specifications** and these special provisions.

Examine the job site and bid documents. Notify the City of apparent errors and patent ambiguities in the plans, specifications, and Bid Item List. Failure to do so may result in rejection of a bid or rescission of an award.

Bid submission is your acknowledgment that you have examined the job site and bid documents and are satisfied with:

1. General and local conditions to be encountered
2. Character, quality, and scope of work to be performed
3. Quantities of materials to be furnished
4. Character, quality, and quantity of surface and subsurface materials or obstacles
5. Requirements of the contract

The **City** assumes no responsibility for conclusions or interpretations made by a bidder or contractor based on the information or data made available by the **City**. The **City** does not assume responsibility for representation made by its officers or agents before the execution of the contract concerning surface or subsurface conditions, unless that representation is expressly stated in the contract.

No conclusions or interpretations made by a bidder or contractor from the information and data made available by the **City** will relieve a bidder or contractor from properly fulfilling the terms of the contract.

5-1.02 CHANGED CONDITIONS

a. Differing Site Conditions

1. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.
2. Upon written notification, the engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of the determination whether or not an adjustment of the contract is warranted.
3. No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.
4. No contract adjustment will be allowed under this clause for any effects caused on unchanged work.

b. Suspensions of Work Ordered by the Engineer

1. If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
2. Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the engineer's determination whether or not an adjustment of the contract is warranted.

3. No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.
4. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

c. Significant Changes in the Character of Work

1. The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.
2. If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.
3. If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.
4. The term "significant change" shall be construed to apply only to the following circumstances:
 - When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
 - When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

5-1.03 LABOR NONDISCRIMINATION

Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

**NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM
(GOV. CODE, SECTION 12990)**

Your attention is directed to [Section 7-1.02I\(2\), "Nondiscrimination," of the Standard Specifications](#), which is applicable to all nonexempt state contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The Specifications are applicable to all nonexempt state construction contracts and subcontracts of \$5,000 or more.

5-1.04 PREVAILING WAGE

Attention is directed to [Section 7-1.02K\(2\), "Wages," of the Standard Specifications](#).

The general prevailing wage rates determined by the Director of Industrial Relations, for the county or counties in which the work is to be done, are available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>. Changes, if any, to the general prevailing wage rates will be available at the same location.

All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).

The Contractor is still responsible to submit all certified payroll records to the City.

5-1.05 RECORDS

Attention is directed to [Section 5-1.27, "Records," of the Standard Specifications](#).

Maintain cost accounting records for the project distinguishing between the following work cost categories:

1. Work performed based on bid item prices
2. Change order work other than extra work. Distinguish this work by:
 - 2.1. Bid item prices
 - 2.2. Force account

- 2.3. Agreed price
- 3. Extra work. Distinguish extra work by:
 - 3.1. Bid item prices
 - 3.2. Force account
 - 3.3. Agreed price
 - 3.4. Specialist billing
- 4. Work performed under potential claim records
- 5. Overhead
- 6. Subcontractors, suppliers, owner-operators, and professional services

Cost accounting records must include:

- 1. Final cost code lists and definitions
- 2. Itemization of the materials used and corresponding vendor's invoice copies
- 3. Direct cost of labor
- 4. Equipment rental charges
- 5. Workers' certified payrolls
- 6. Equipment:
 - 6.1. Size
 - 6.2. Type
 - 6.3. Identification number

The cost accounting records for the contract shall be maintained separately from other contracts, during the life of the contract, and for a period of not less than 3 years after the date of acceptance of the contract. If the Contractor intends to file claims against the [City](#), the Contractor shall keep the cost accounting records specified above until complete resolution of all claims has been reached.

5-1.06 PUBLIC SAFETY

The Contractor shall provide for the safety of traffic and the public in conformance with the provisions in [Section 7-1.04, "Public Safety,"](#) of the Standard Specifications and these special provisions.

Control dust resulting from the work, inside and outside the right-of-way. Move workers, equipment, and materials without endangering traffic.

Install Type K temporary railing or other authorized protective systems under any of the following conditions:

- 1. Excavations: Where the near edge of the excavation is within 15 feet from the edge of an open traffic lane
- 2. Temporarily unprotected permanent obstacles: When the work includes the installation of a fixed obstacle together with a protective system, such as a sign structure together with protective railing, and you elect to install the obstacle before installing the protective system; or you, for your convenience and as authorized, remove a portion of an existing protective railing at an obstacle and do not replace such railing completely the same day
- 3. Storage areas: When material or equipment is stored within 15 feet of the edge of an open traffic lane and the storage is not otherwise prohibited by the Contract
- 4. Height differentials: When construction operations create a height differential greater than 0.15 feet within 15 feet of the edge of traffic lane

Installation of Type K temporary railing is not required if an excavation within 15 feet from the edge of an open traffic lane is protected by any of the following:

- 1. Steel plate or concrete covers of adequate thickness to prevent accidental entry by traffic or the public
- 2. Side slope where the downhill slope is 4:1 (horizontal:vertical) or less unless a naturally occurring condition
- 3. Barrier or railing

Offset the approach end of Type K temporary railing a minimum of 15 feet from the edge of an open traffic lane. Install the temporary railing on a skew toward the edge of the traffic lane of not more than 1 foot transversely to 10 feet longitudinally with respect to the edge of the traffic lane. If the 15-foot minimum offset cannot be achieved, the temporary railing must be installed on the 10 to 1 skew to obtain the maximum available offset between the approach end of the railing and the edge of the traffic lane, and an array of temporary crash cushion modules must be installed at the approach end of the temporary railing.

Secure Type K temporary railing in place before starting work for which the temporary railing is required.

Where 2 or more lanes in the same direction are adjacent to the area where the work is being performed, including shoulders, the adjacent lane must be closed under any of the following conditions:

- 1. Work is off the traveled way but within 6 feet of the edge of the traveled way, and the approach speed is greater than 45 miles per hour
- 2. Work is off the traveled way but within 3 feet of the edge of the traveled way, and the approach speed is less than 45 miles per hour

Closure of the adjacent traffic lane is not required when performing any of the following:

1. Working behind a barrier
2. Paving, grinding, or grooving
3. Installing, maintaining, or removing traffic control devices except Type K temporary railing

Do not reduce an open traffic lane width to less than 10 feet. When traffic cones or delineators are used for temporary edge delineation, the side of the base of the cones or delineators nearest to traffic is considered the edge of the traveled way.

If a traffic lane is closed with channelizers for excavation work, move the devices to the adjacent edge of the traveled way when not excavating. Space the devices as specified for the lane closure.

Do not move or temporarily suspend anything over a traffic lane open to the public unless the public is protected.

Full compensation for conforming to the provisions in this section "Public Safety," including furnishing and installing temporary railing (Type K) and temporary crash cushion modules, shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

5-1.07 UNANTICIPATED DISCOVERY OF ASBESTOS AND HAZARDOUS SUBSTANCES

Upon discovery, immediately stop working in and notify the Engineer of areas where asbestos or a hazardous substance is present if the:

1. Contractor reasonably believes the substance is asbestos as defined in Labor Code § 6501.7 or a hazardous substance as defined in Health & Safety Code § 25316 and § 25317
2. Presence is not described in the Contract
3. Substance has not been made harmless

In conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the current controlling operation, the delay will be considered a "delay" and the Contractor will be compensated for the delay in conformance with the provisions in [Section 8-1.07, "Delays," of the Standard Specifications](#).

5-1.08 SUBCONTRACTING

No subcontract releases you from the Contract or relieves you of your responsibility for a subcontractor's work.

Before subcontracted work starts, submit a Subcontracting Request form.

Do not use a debarred contractor. For a list of debarred contractors, go to the Department of Industrial Relations' website.

If you violate Pub Cont Code § 4100 et seq., the Department may exercise the remedies provided in Pub Cont Code § 4110. The City may refer the violation to the Contractors State License Board as provided under Pub Cont Code § 4111.

Except for a building-construction non-federal-aid contract, perform work equaling at least 30 percent of the value of the original total bid with your employees and with equipment you own or rent, with or without operators.

Each subcontract must comply with the Contract.

The City encourages you to include a dispute resolution process in each subcontract.

Each subcontractor must have an active and valid:

1. State contractor license with a classification appropriate for the work to be performed (Bus & Prof Code § 7000 et seq.)
2. Public works contractor registration number with the Department of Industrial Relations

Submit copies of subcontracts upon request.

Upon request, immediately remove and do not again use a subcontractor who fails to satisfactorily prosecute the work.

5-1.09 PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS

A prime contractor or subcontractor shall pay any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provision in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The 10 days is applicable unless a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of

Section 7108.5 shall subject the violating contractor or subcontractor to the penalties, sanction and other remedies of that section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor. This provision applies to both DBE and non-DBE subcontractors.

5-1.10 PROMPT PAYMENT OF WITHHELD FUNDS TO SUBCONTRACTORS

The City shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the City, of the contract work, and pay retainage to the prime contractor based on these acceptances. The prime contractor, or subcontractor, shall return all monies withheld in retention from a subcontractor within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the City. Federal law (49CFR26.29) requires that any delay or postponement of payment over 30 days may take place only for good cause and with the City's prior written approval. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor. This provision applies to both DBE and non-DBE prime contractors and subcontractors.

5-1.10A PROMPT PAYMENT FROM THE AGENCY TO THE CONTRACTORS

The Agency shall make any progress payment within 30 days after receipt of an undisputed and properly submitted payment request from a contractor on a construction contract. If the Agency fails to pay promptly, the Agency shall pay interest to the contractor, which accrues at the rate of 10 percent per annum on the principal amount of a money judgment remaining unsatisfied. Upon receipt of a payment request, the Agency shall act in accordance with both of the following:

1. Each payment request shall be reviewed by the Agency as soon as practicable after receipt for the purpose of determining that it is a proper payment request.
2. Any payment request determined not to be a proper payment request suitable for payment shall be returned to the contractor as soon as practicable, but not later than seven (7) days, after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper.

5-1.11 PARTNERING

(Required when total estimate is greater than \$ 1.0 M and construction contract is administered under the Caltrans Standard Specifications.)

The City of McFarland will promote the formation of a "Partnering" relationship with the Contractor in order to effectively complete the contract to the benefit of both parties. The purpose of this relationship will be to maintain cooperative communication and mutually resolve conflicts at the lowest possible management level.

The Contractor may request the formation of such a "Partnering" relationship by submitting a request in writing to the Engineer after approval of the contract. If the Contractor's request for "Partnering" is approved by the Engineer, scheduling of a "Partnering" workshop, selecting the "Partnering" facilitator and workshop site, and other administrative details shall be as agreed to by both parties.

The costs involved in providing a facilitator and a workshop site will be borne equally by the City of McFarland and the Contractor. The Contractor shall pay all compensation for the wages and expenses of the facilitator and of the expenses for obtaining the workshop site. The City's share of such costs will be reimbursed to the Contractor in a change order written by the Engineer. Markups will not be added. All other costs associated with the "Partnering" relationship will be borne separately by the party incurring the costs.

The establishment of a "Partnering" relationship will not change or modify the terms and conditions of the contract and will not relieve either party of the legal requirements of the contract.

5-1.12 ENCROACHMENT PERMIT

NOT USED

5-1.13 AREAS FOR CONTRACTOR'S USE

The road right of way shall be used only for purposes that are necessary to perform the required work. The Contractor shall not occupy the right of way, or allow others to occupy the right of way, for purposes which are not necessary to perform the required work.

No City-owned parcels adjacent to the site are available for the exclusive use of the Contractor within the contract limits. The Contractor shall secure, at the Contractor's own expense, areas required for plant sites, storage of equipment or materials, or for other purposes.

5-1.14 NOISE AND VIBRATION

Noise control shall conform to the provisions in [Section 14-8, "Noise and Vibration," of the Standard Specifications](#) and these special provisions.

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA LMax at a distance of 50 ft. from the job site activities. This requirement shall not relieve the Contractor from responsibility for complying with local ordinances regulating noise level.

The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

5-1.15 GUARANTEE

GENERAL

The Contractor shall guarantee the work is in accordance with contract requirements and remains free from substantial defects in materials and workmanship for a period of one year after contract acceptance. For certain portions of the work where the Engineer relieves the Contractor of responsibility in accordance with [Section 5-1.38, "Maintenance and Protection Relief," of the Standard Specifications](#), the guarantee period starts on the relief date and ends one year therefrom.

Substantial defects in materials and workmanship means defective work objectively manifested by damaged, displaced, or missing parts or components; and workmanship resulting in improper function of materials, components, equipment, or systems, as installed or manufactured by the Contractor, subcontractor, supplier, or manufacturer.

During the guarantee period, the Contractor shall repair or replace contract work and associated work which is not in accordance with contract requirements or has substantial defects in materials and workmanship. The Contractor shall perform the corrective work with no expense to the [City of McFarland](#) other than City-provided field inspection services.

The guarantee of work excludes damage or displacement that is outside the control of the Contractor and caused by normal wear and tear, improper operation, insufficient maintenance, abuse, unauthorized modification, or natural disaster as described in [Section 5-1.47, "Guarantee," of the Standard Specifications](#).

The Contractor shall have the same insurance coverage during corrective work operations as prior to contract acceptance, in accordance with [Section 7-1.06, "Insurance," of the Standard Specifications](#).

The contract bonds furnished in accordance with [Section 3-1.05 "Contract Bonds \(PUB CONT CODE §§ 10221 AND 10222\)," of the Standard Specifications](#) must remain in full force and effect during the guarantee period and until all corrective work is complete.

In the case of conflict between this guarantee provision and any warranty provision included in the contract, the warranty provision shall govern for the specific construction product or feature covered.

CORRECTIVE WORK

During the guarantee period, the [City of McFarland](#) will monitor performance of the highway facilities completed by the Contractor and will perform a thorough review of the contract work at least 60 days before the expiration of the one-year guarantee.

If the Engineer discovers contract work not in compliance with contract requirements or that has substantial defects in materials and workmanship, at any time during the guarantee period, a list of items that require corrective work will be developed and forwarded to the Contractor. Within 15 days of receipt of a list, the Contractor shall submit to the Engineer a detailed plan for performing corrective work. The work plan shall include a start to finish schedule. It shall include a list of labor, equipment, materials, and any special services intended to be used. It shall clearly show related work including traffic control, temporary delineation, and permanent delineation.

Contractor shall start the corrective and related work within 15 days of receiving notice from the Engineer that the Contractor's work plan is approved. The corrective work shall be diligently prosecuted and completed within the time allotted in the approved work plan.

If the Engineer determines that corrective work, covered by the guarantee, is urgently needed to prevent injury or property damage, the Engineer will give the Contractor a request to start emergency repair work and a list of items that require repair work. The Contractor shall mobilize within 24 hours and diligently perform emergency repair work on the damaged highway facilities. The Contractor shall submit a work plan within 5 days of starting emergency repair work.

If the Contractor fails to commence and execute, with due diligence, corrective work and related work required under the guarantee in the time allotted, the Engineer may proceed to have the work performed by City forces or other forces at the Contractor's expense. Upon demand, the Contractor shall pay all costs incurred by the [City of McFarland](#) for work performed by City forces or other forces including labor, equipment, material, and special services.

PAYMENT

Full compensation for performing corrective work; and related work such as traffic control, temporary delineation, and permanent delineation, and to maintain insurance coverage and bonds, shall be considered as included in the contract prices paid for the various contract items of work and no separate payment will be made therefor.

5-1.16 PAYMENTS

Attention is directed to [Section 9-1.16, "Progress Payments,"](#) and [9-1.17, "Payment After Contract Acceptance,"](#) of the [Standard Specifications](#) and these special provisions.

No partial payment will be made for any materials on hand which are furnished but not incorporated in the work.

5-1.17 SUPPLEMENTAL PROJECT INFORMATION

The information in this section has been compiled specifically for this project and is made available for bidders and Contractors. Other information referenced in the Standard Specifications and these special provisions do not appear in this section. The information is subject to the conditions and limitations set forth in [Section 2-1.07, "Job Site and Document Examination,"](#) and [Section 6-1.03, "Local Materials,"](#) of the [Standard Specifications](#). Bidders and Contractors shall be responsible for knowing the procedures for obtaining information.

5-1.17A Disposal of obliterated/surplus materials

1. All obliterated/surplus materials shall become property of the Contractor and shall be disposed of in conformance with the provisions in [Section 14-10, "Solid Waste Disposal And Recycling,"](#) of the Standard Specifications. Full compensation for hauling off obliterated/surplus materials shall be considered as included in the contract price paid for [COLD PLANE 3" EXISTING AC SURFACE AND HAUL OFF SITE](#) and no separate payment will be made therefor.

5-1.17B SWPPP / Erosion Control Plan

1. For Street Sites one (1) acre or more: The Contractor shall develop a Storm Water Pollution Prevention Plan (SWPPP) that has been designed, specific to its site, conforming to the State Storm water NPDES Construction Permit. The plan shall be prepared by a Qualified SWPPP Developer/Practitioner. The SWPPP shall be submitted to the Engineer for review and approval.

Full compensation for this item of work, including implementation of Best Management Practices (BMP's) as recommended in the SWPPP, shall be considered as included in the contract lump sum price for [PREPARE AND IMPLEMENT SWPPP](#) and no additional compensation will be allowed therefor.

2. For Sites less than one (1) acre: The Contractor shall develop [an Erosion Control Plan](#) that has been designed, specific to its site, conforming to the [Kern County 2019 California Green Building Standards Code Residential and Non-Residential Development](#). The [Erosion Control Plan](#) shall prevent the loss of soil or pollution of stormwater runoff from the construction activities through local ordinance requirements and/or best management practice (BMP). No grading shall be done until [Erosion Control Plan](#) has been approved by the enforcement agency ([City of McFarland](#)). The contractor should employ the site-specific BMPs in the plan as needed and as conditions arise. The contractor should conduct site inspections before, during extended storm events, and after each storm event to identify areas that may contribute to erosion and sediment problems or any other pollutant discharges. Additional control measures may need to be implemented immediately.

The [Kern County 2019 California Green Building Standards Code Residential and Non-Residential Development](#) is available from the County's web site at:

<https://kernpublicworks.com/building-and-development/building-inspection/bulletinsdocumentsforms/>

The [Erosion Control Plan](#) shall be submitted to the Engineer for review and approval.

The Contractor shall ensure that the Plan is written, amended and certified by one of the following:

- a. A California registered professional civil engineer;
- b. A California registered professional geologist or engineering geologist;
- c. A California registered landscape architect;
- d. A professional hydrologist registered through the American Institute of Hydrology;
- e. A Certified Professional in Erosion and Sediment Control (CPESC)TM registered through Enviro Cert International, Inc.;
- f. A Certified Professional in Storm Water Quality (CPSWQ)TM registered through Enviro Cert International, Inc.; or

- g. A professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET);

Full compensation for this item of work, including implementation of Best Management Practices (BMP's) as recommended in the SWSLPP, shall be considered as included in the contract lump sum price for **PREPARE AND IMPLEMENT EROSION CONTROL PLAN** and no additional compensation will be allowed therefor.

SWPPP IMPLEMENTATION

Monitor the National Weather Service Forecast Office on a daily basis. For forecasts, go to:

<http://www.srh.noaa.gov/forecast>

Whenever the Contractor or the Engineer identifies a deficiency in the implementation of the approved **WPCD**:

1. Correct the deficiency immediately, unless the Engineer agrees to a later date for making the correction
2. Correct the deficiency before precipitation occurs

If Contractor fails to correct the deficiency by the agreed date or before the onset of precipitation, the City may correct the deficiency and deduct the cost of correcting the deficiency from payment.

Continue WPCD implementation during any temporary suspension of work activities.

Full compensation for this item of work, including implementation of Best Management Practices (BMP's) as recommended in the WPCD, shall be considered as included in the contract lump sum price for **PREPARE AND IMPLEMENT SWPPP** and no additional compensation will be allowed therefor.

5-1.17C Property Resident Notification

The Contractor is required to notify all property residents/owners, businesses, residences, etc. in letter form in both English and Spanish of the construction dates and times, at least 5 days prior to the beginning of work. Contractor shall also post "Temporary No Parking" signs, a minimum of 48 hours prior to the commencing of Construction activities on the street adjacent to their property. The sign shall be in both English and Spanish.

Full compensation for this item of work shall be considered as included in the contract lump sum price paid for "**TEMPORARY TRAFFIC CONTROL**," and no separate payment will be made therefor.

5-1.17D Project Funding Signage

The Contractor shall furnish and install New C48(CA) "Construction Project Funding Identification Sign for SB1" (48"x30"), at locations designated by the Engineer before starting construction activities visible to road users. Upon completion of the project the signs shall become property of the City, the Contractor shall remove and deliver the signs to the City Maintenance Yard.

Manufacturing details for SB-1 signs are available at: <https://dot.ca.gov/programs/safety-programs/pfi>

See **Appendix B** for pictographs.

5-1.18 COMPLIANCE WITH IRCA

Contractor acknowledges that Contractor, and all subcontractors hired by Contractor to perform services under this agreement, are aware of and understand the Immigration Reform and Control Act ("IRCA"). Contractor is and shall remain in compliance with the IRCA and shall ensure that any subcontractors hired by Contractor to perform services under this Agreement are in compliance with the IRCA. In addition, Contractor agrees to indemnify, defend and hold harmless the City of McFarland, its agents, officers and employees, from any liability, damages or causes of action arising out of or relating to any claims that Contractor's employees, or the employees of any subcontractor hired by Contractor, are not authorized to work in the United States for Contractor or its subcontractor and/or any other claims bases upon alleged IRCA violations committed by Contractor or Contractor's subcontractor(s).

SECTION 6. (BLANK)

SECTION 7. (BLANK)

SECTION 8. MATERIALS

8-1.01 CITY-FURNISHED MATERIALS

In addition to other options available to the contractor the City will furnish construction water. Should the contractor elect to take advantage of this option, the contractor shall pay a \$750.00 refundable deposit and install a meter on a hydrant approved by the City. There are no other City furnished materials on this project.

All other materials required to complete the work under this contract shall be furnished by the Contractor.

A certificate of compliance may be required for materials used on this contract as directed by the Engineer.

When requested by the [Engineer](#), the supplier or Contractor shall furnish, without charge, samples of all materials entering into the work, and no material shall be used prior to approval by the Engineer. Samples of the material from local sources shall be taken by or in the presence of the Engineer; otherwise the samples will not be considered for testing.

8-1.02 PORTLAND CEMENT CONCRETE

Portland cement concrete shall conform to the provisions in [Section 90, "Concrete," of the Standard Specifications](#).

Concrete must be composed of cementitious material, fine aggregate, coarse aggregate, admixtures if used, and water.

Submit a certificate of compliance for cementitious materials. Include the source name and location.

If the cementitious material is used in ready-mixed concrete, the certificate of compliance must be signed by the concrete manufacturer.

Submit the concrete mix design before using the concrete in the work and before changing the mix proportions or an aggregate source.

Submit a weighmaster certificate as an informational submittal with each load of concrete delivered to the job site.

Unless otherwise specified, the cementitious material must be combination of Type II or V Portland cement and supplementary cementitious material (SCM).

8-1.03 CONTRACTOR QUALITY CONTROL PROGRAM

When the specification requires a [Quality Control Program](#), the Contractor shall establish, provide, and maintain an effective [Quality Control Program](#) that details the methods and procedures that will be taken to assure that all materials and completed construction required by this CONTRACT conform to CONTRACT PLANS, technical SPECIFICATIONS and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified herein and elsewhere in the contract technical SPECIFICATIONS, the Contractor shall assume full responsibility for accomplishing the stated purpose.

The intent of this section is to enable the Contractor to establish a necessary level of control that will:

- a. Adequately provide for the production of acceptable quality materials.
- b. Provide sufficient information to assure both the Contractor and the ENGINEER that the specification requirements can be met.
- c. Allow the Contractor as much latitude as possible to develop his or her own standard of control.

The Contractor shall be prepared to discuss and present, at the preconstruction conference, his understanding of the quality control requirements. The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the Quality Control Program has been reviewed by the ENGINEER. No partial payment will be made for materials subject to specific quality control requirements until the Quality Control Program has been reviewed.

DESCRIPTION OF PROGRAM

- a. General Description. The Contractor shall establish a Quality Control Program to perform inspection and testing of all items of work required by the technical SPECIFICATIONS, including those performed by subcontractors. This Quality Control Program shall ensure conformance to applicable SPECIFICATIONS and PLANS with respect to materials, workmanship, construction, finish, and functional performance. The Quality Control Program shall be effective for control of all construction work performed under this Contract and shall specifically include surveillance and tests required by the technical SPECIFICATIONS, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of quality control.
- b. Quality Control Program. The Contractor shall describe the Quality Control Program in a written document that shall be reviewed by the ENGINEER prior to the start of any production, construction, or off-site fabrication. The written Quality Control Program shall be submitted to the ENGINEER for review at least 10 calendar days before the start of work.

The Quality Control Program shall be organized to address, as a minimum, the following items:

- a. Quality control organization;
- b. Project progress schedule;
- c. Submittals schedule;
- d. Inspection requirements;
- e. Quality control testing plan;
- f. Documentation of quality control activities; and
- g. Requirements for corrective action when quality control and/or acceptance criteria are not met.

The Contractor is encouraged to add any additional elements to the Quality Control Program that he/she deems necessary to adequately control all production and/or construction processes required by this CONTRACT.

CONSTRUCTION ITEMS SUBJECT TO SAMPLING/TESTING

As a minimum, and as part of the Contractor's Quality Control, the Contractor shall perform sampling and testing on the following:

1. Hot Mix Asphalt:

- The HMA construction process shall be: **STANDARD**; per Section 39-2 "Standard" of the 2010 Standard Specifications. Establish, maintain, and change a quality control system for HMA, per Section 39-1.04 "Contractor Quality Control," of the 2010 Standard Specifications. Submit quality control test results within 3 days of a request.
- Density Cores: To determine density for Standard and QC/QA construction process projects, take 4- or 6-inch diameter density cores. Take 1 density core for every 250 tons of HMA from random locations the Engineer designates. Take density cores in the Engineer's presence and backfill and compact holes with authorized material. Before submitting a density core, mark it with the density core's location and place it in a protective container. If a density core is damaged, replace it with a density core taken within 1 foot longitudinally from the original density core.
- For STANDARD HMA construction process, perform sampling and testing at the specified frequency for the quality characteristics shown in the following table:

Minimum Quality Control—Standard Construction Process

Quality characteristic	Test method	Minimum sampling and testing frequency	HMA type			
			A	B	RHMA-G	OGFC
Aggregate gradation ^a	California Test 202	1 per 750 tons and any remaining part	JMF ± Tolerance ^b	JMF ± Tolerance ^b	JMF ± Tolerance ^b	JMF ± Tolerance ^b
Sand equivalent (min) ^c	California Test 217		47	42	47	--
Asphalt binder content (%)	California Test 379 or 382		JMF ± 0.45	JMF ± 0.45	JMF ± 0.50	JMF ± 0.50
HMA moisture content (% max)	California Test 226 or 370	1 per 2,500 tons but not less than 1 per paving day	1.0	1.0	1.0	1.0
Percent of maximum theoretical density (%) ^{d, e}	QC plan	2 per business day (min.)	91–97	91–97	91–97	--
Stabilometer value (min) ^{c, f} No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	One per 4,000 tons or 2 per 5 business days, whichever is greater	30	30	--	--
			37	35	23	--
Air void content (%) ^{c, g}	California Test 367		4 ± 2	4 ± 2	TV ± 2	--
Aggregate moisture content at continuous mixing plants and RAP moisture content at continuous mixing plants and batch mixing plants ^h	California Test 226 or 370	2 per day during production	--	--	--	--
Percent of crushed particles coarse aggregate (% min) One fractured face Two fractured faces Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face	California Test 205	As designated in the QC plan. At least once per project	90	25	--	90
			75	--	90	75
			70	20	70	90
Los Angeles Rattler (% max) Loss at 100 rev. Loss at 500 rev.	California Test 211		12	--	12	12
			45	50	40	40
Flat and elongated particles (% max by weight @ 5:1)	California Test 235		Report only	Report only	Report only	Report only
Fine aggregate	California		45	45	45	--

angularity (% min)	Test 234					
Voids filled with asphalt (%) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	As designated in the QC plan. At least once per project	76.0–80.0 73.0–76.0 65.0–75.0 65.0–75.0	76.0–80.0 73.0–76.0 65.0–75.0 65.0–75.0	Report only	--
Voids in mineral aggregate (% min) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367		17.0 15.0 14.0 13.0	17.0 15.0 14.0 13.0	-- -- 18.0–23.0 ^j 18.0–23.0 ^j	--
Dust proportion ⁱ No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367		0.9–2.0 0.6–1.3	0.9–2.0 0.6–1.3	Report only	--
Smoothness	Section 39-1.12	--	12-foot straight-edge, must grind, and PI ₀	12-foot straight-edge, must grind, and PI ₀	12-foot straight-edge, must grind, and PI ₀	12-foot straight-edge, must grind, and PI ₀
Asphalt rubber binder viscosity @ 350 °F, centipoises	Section 39-1.02D	Section 39-1.04C	--	--	1,500–4,000	1,500–4,000
Asphalt modifier	Section 39-1.02D	Section 39-1.04C	--	--	Section 39-1.02D	Section 39-1.02D
CRM	Section 39-1.02D	Section 39-1.04C	--	--	Section 39-1.02D	Section 39-1.02D

^a Determine combined aggregate gradation containing RAP under California Test 367.

^b The tolerances must comply with the allowable tolerances in section 39-1.02E.

^c Report the average of 3 tests from a single split sample.

^d Required for HMA Type A, Type B, and RHMA-G if the specified paved thickness is at least 0.15 foot.

^e Determine maximum theoretical density (California Test 309) at the frequency specified for Test Maximum Density under California Test 375, Part 5.D.

^f California Test 304, Part 2.13.

^g Determine the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

^h For adjusting the plant controller at the HMA plant.

ⁱ Report only if the adjustment for the asphalt binder content TV is less than or equal to ±0.3 percent from OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form.

^j Voids in mineral aggregate for RHMA-G must be within this range.

All compaction Acceptance Testing on native soils, cement treated subgrade and aggregate base will be done by the City's Materials Lab. The City shall pay for all initial compaction acceptance testing, all costs incurred for any additional testing due to failed tests shall be the responsibility of the contractor and shall be withheld from the retention payment.

All concrete and reinforcing steel involved in the job will be accepted by a Certificated of Compliance. The Engineer will inspect work as needed.

Inspections/Surveillance by the ENGINEER does not relieve the CONTRACTOR from assuring that all materials and completed construction required by this CONTRACT conform to CONTRACT PLANS, technical SPECIFICATIONS and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.

Full compensation for preparing a quality control program, including performing quality control tests, taking AC cores, and making the results available to the Engineer shall be considered as included in the contract lump sum price for QUALITY CONTROL PROGRAM and no additional compensation will be allowed therefor.

SURVEILLANCE BY THE ENGINEER

- a. All items of material and equipment shall be subject to surveillance by the ENGINEER at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate quality control system in conformance with the requirements detailed herein and the applicable technical SPECIFICATIONS and PLANS. In addition, all items of materials, equipment and work in place shall be subject to surveillance by the ENGINEER at the site for the same purpose.
- a. Surveillance by the ENGINEER does not relieve the Contractor of performing quality control inspections of either on-site or off-site Contractor's or subcontractor's work.
- b. Inspections/Surveillance by the ENGINEER does not relieve the CONTRACTOR from assuring that all materials and completed construction required by this CONTRACT conform to CONTRACT PLANS, technical SPECIFICATIONS and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.

NONCOMPLIANCE

- a. The ENGINEER will notify the Contractor of any noncompliance with any of the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Any notice, when delivered by the ENGINEER or his/her authorized representative to the Contractor or his/her authorized representative at the site of the work, shall be considered sufficient notice.
- b. In cases where quality control activities do not comply with either the Contractor Quality Control Program or the CONTRACT provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, as determined by the ENGINEER, the ENGINEER may:
 - (1) Order the Contractor to replace ineffective or unqualified quality control personnel or subcontractors.
 - (2) Order the Contractor to stop operations until appropriate corrective actions are taken.

8-1.04 CITY'S QUALITY ASSURANCE PROGRAM

The CITY uses a Quality Assurance Program (QAP), which is included in [Appendix A](#), to ensure a material is produced to comply with the Contract.

You may examine the records and reports of tests the City performs if they are available at the job site.

You must schedule work to allow time for QAP.

SECTION 9. (BLANK)

SECTION 10. CONSTRUCTION DETAILS

10-1.01 GENERAL

The Contractor's attention is directed to [Section 5-1.36 "Property and Facility Preservation,"](#) of the Standard Specifications and these Special Provisions.

The Contractor will be required to work around public utility facilities and other improvements that are to remain in place within the construction area or that are to be relocated and relocation operations have not been completed, and in accordance with the provisions of [Sections 5-1.36 "Property and Facility Preservation,"](#) and [7-1.06 "Insurance,"](#) of the Standard Specifications, he will be liable to owners of such facilities and improvements for any damage or interference with service resulting from his operations. The Contractor shall ascertain the exact locations of underground facilities and improvements within the construction area before using equipment that may damage such facilities or interfere with the services. Other forces may be engaged in moving or removing utility facilities or other improvements or maintaining services of utilities and the Contractor shall cooperate with such forces and conduct his operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by such other forces.

The Contractor is required to notify all property owners, businesses, residences, etc. in letter form in both English and Spanish of the construction dates and times, at least 5 days prior to the beginning of work. A copy of this notification letter must also be sent to the Engineer: [BHT Engineering Inc., 218 S. "H" Street, Suite 201, Bakersfield, CA 93304.](#) Contractor shall also post "Temporary No Parking" signs, a minimum of 48 hours prior to the commencing Cold Planing, Heater Scarification, and Paving operations of the street adjacent to their property. The notification shall be by posting visible signs at the edge of the curbs and gutters. The signs which will be posted must be on their own lath or attached to delineator cones, or pylons, and not stapled or nailed to any tree, utility pole or street signs. Trees must be protected from being scarred or broken during construction and must be repaired or replaced at Contractor's expense if damage is done.

In the event that vehicles are on the street at the time construction is to begin, the contractor shall take appropriate action to notify the owner/s of said vehicle to have it moved. If this is not possible, or the vehicle is inoperable and the owner is not capable of moving the vehicle, the contractor shall inform the Engineer, who will notify the [CITY OF McFARLAND](#) Police Department to have the vehicle towed at the owner's expense. Note: The above action may take place only if the "Temporary No Parking" signs have been in place, and placement has been verified by the Engineer, for the required 48 hour time period. Removal of said signs by the property owners or vandals will not constitute Non-compliance with this section.

The Contractor will be held responsible for any damage he may do to existing installations that are to remain in place.

All property to remain shall be properly protected from injury or damage. Should any such property be damaged, it shall be repaired and/or replaced with material, fixtures, or equipment of the same kind, quality and size or better.

Contractor to ensure chemicals involved in construction and methods of construction meet requirements of [San Joaquin Valley Unified Air Pollution Control District Rule 463.1.](#)

Contractor to be responsible for contacting Underground Service Alert at least 72 hours prior to construction. Contractor shall also to submit to the Engineer, a letter certifying that Underground Service Alert was notified, letter shall contain; the date and time of notification, U.S.A. alert Number, and duration of alert, Utility companies notified, and shall be signed by the person who made the alert, and the Contractors authorized representative, or job foreman.

Full compensation for performing all of the work required under these Special Provisions shall be considered as included in the prices paid for the various Contract items of work involved and no separate payment will be made therefor.

10-1.01A DAILY REPORT

On a form acceptable to the Engineer, and at the end of each workday, submit Daily Report indicating manpower, major equipment used and on standby (itemized separately), subcontractors, materials used, bid items and quantities completed, and similar items involved in the performance of the Work.

10-1.02 START OF JOB SITE ACTIVITIES

Attention is directed to [Section 8.104 "Start of Job Site Activities,"](#) of the Standard Specifications and these special provisions, related to prosecuting the Contract and work progress.

Start job site activities within 15 calendar days after the contract has been approved by the [City of McFARLAND](#) and a [NOTICE TO PROCEED](#) has been issue.

Submit a notice 72 hours before starting job site activities. If the project has more than 1 location of work, submit a separate notice for each location.

Before or at the preconstruction conference, submit a proposed schedule or work.

Submit a monthly updated schedule that includes the status of work completed to date and the work yet to be performed as planned.

Attention is directed to “[Maintaining Traffic](#)” and “[Temporary Pavement Delineation](#)” of these special provisions.

Pavement delineation removal shall be coordinated with new delineation so that lane lines are provided at all times on traveled ways open to public traffic.

Before obliterating any pavement delineation (traffic stripes, pavement markings, and pavement markers) that is to be replaced on the same alignment and location, as determined by the Engineer, the pavement delineation shall be referenced by the Contractor, with a sufficient number of control points to reestablish the alignment and location of the new pavement delineation. The references shall include the limits or changes in striping pattern, including one- and 2-way barrier lines, limit lines, crosswalks and other pavement markings.

Full compensation for referencing existing pavement delineation shall be considered as included in the contract lump sum price for [the various items of work](#) and no additional compensation will be allowed therefor.

10-1.03 CONSTRUCTION STAKING

[The CITY will provide construction staking/survey.](#) The CITY’s contract ENGINEER shall establish horizontal and vertical control only. The Contractor must establish all layout required for the construction of the work. Such stakes and markings as the ENGINEER may set for either his/her own or the Contractor’s guidance shall be preserved by the Contractor. In case of negligence on the part of the Contractor, or his/her employees, resulting in the destruction of such stakes or markings, an amount equal to the cost of replacing the same may be deducted from subsequent estimates due the Contractor at the discretion of the ENGINEER.

10-1.04 JOB SITE MANAGEMENT

[Section 13-4 “Job Site Management,” of the Standard Specifications](#) includes specifications for performing job site management, including spill prevention and control, material management, waste management, nonstormwater management, and dewatering activities.

Implement effective handling, storage, usage, and disposal practices to control material pollution and manage waste and nonstormwater at the job site before they come in contact with storm drain systems and receiving waters.

PAYMENT

Payment for job site management shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in spill prevention and control, material management, waste management, non-storm water management, and dewatering and identifying, sampling, testing, handling, and disposing of hazardous waste, as specified in the [Standard Specifications](#) and these special provisions, and as directed by the Engineer.

Full compensation for job site management will be considered as included in the lump sum price paid for [PREPARE AND IMPLEMENT SWPPP](#) and no additional compensation will be allowed therefor.

10-1.05 TEMPORARY TRAFFIC CONTROL

Temporary traffic control, including flagging, apparel, temporary traffic control devices, and equipment for flaggers, must comply with the California MUTCD, Part 6, “Temporary Traffic Control” and with these special provisions.

Assign flaggers to:

1. Control traffic
2. Warn the public of any dangerous conditions resulting from the work activities
3. Provide for the passage of traffic through the work as specified for the passage of traffic for public convenience and public safety

Maintain flagging apparel, traffic control devices, and equipment for flaggers in good repair.

Full compensation for performing all of the work required under these Special Provisions shall be considered as included in the contract price paid for the [TEMPORARY TRAFFIC CONTROL](#) involved and no additional compensation will be allowed therefor.

10-1.06 TEMPORARY TRAFFIC CONTROL DEVICES

Temporary traffic control devices must comply with [Section 12-3 “Temporary Traffic Control Devices,” of the Standard Specifications.](#)

Providing temporary traffic control devices includes installing, placing, maintaining, repairing, replacing, and removing temporary traffic control devices.

If temporary traffic control devices are damaged, displaced, or stop operating or functioning as described from any cause during the progress of the work, immediately repair, repaint, or replace the components and restore them to their original locations and positions.

10-1.07 CONSTRUCTION AREA SIGNS

Construction area signs for temporary traffic control shall be furnished, installed, maintained, and removed when no longer required in conformance with the provisions in [Section 12-3.11, "Construction Area Signs,"](#) of the [Standard Specifications](#) and these special provisions.

One W20-1 (Road Work Ahead) sign and One G20-2 (End Road Work) sign shall be posted on each approach/departure from the construction work area. Locations of the signs shall be approved by the Engineer.

Signs may be ported on temporary post supported by cross braces, rather than by digging holes for posts. Where such cross braces are used, no braces shall extend into the traveled way or a sidewalk.

Unless otherwise shown on the plans or specified in these special provisions, the color of construction area warning and guide signs shall have black legend and border on orange background, except W10-1 or W47(CA) (Highway-Rail Grade Crossing Advance Warning) sign shall have black legend and border on yellow background.

Orange background on construction area signs shall be fluorescent orange.

Repair to construction area sign panels will not be allowed, except when approved by the Engineer. At nighttime under vehicular headlight illumination, sign panels that exhibit irregular luminance, shadowing or dark blotches shall be immediately replaced at the Contractor's expense.

The Contractor shall notify the appropriate regional notification center for operations of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to commencing any excavation for construction area sign posts. The regional notification centers include but are not limited to the following:

Underground Service Alert-
Northern California (USA)

Telephone: 811

All excavation required to install construction area signs shall be performed by the hand methods without the use of power equipment; except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes.

The Contractor shall maintain accurate information on construction area signs. Signs that are no longer required shall be immediately covered or removed. Signs that convey inaccurate information shall be immediately replaced or the information shall be corrected. Covers shall be replaced when they no longer cover the signs properly. The Contractor shall immediately restore to the original position and location any sign that is displaced or overturned, from any cause, during the progress of work.

Construction area signs, including those signs required for traffic control system for lane closure, will be paid for on a lump sum basis under [TEMPORARY TRAFFIC CONTROL](#). The lump sum price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing construction area signs required for the direction of public traffic through or around the work and for erecting or placing, maintaining (including covering and uncovering as needed) and, when no longer required, removing construction area signs at locations shown on the plans.

Full compensation for furnishing, erecting, maintaining and removing any additional construction area signs the Contractor may deem necessary will be considered as included in the contract price paid for the [TEMPORARY TRAFFIC CONTROL](#) involved and no additional compensation will be allowed therefor.

10-1.08 MAINTAINING TRAFFIC

Attention is directed to [Sections 7-1.03, "Public Convenience," 7-1.04, "Public Safety,"](#) and [12, "Temporary Traffic Control,"](#) of the [Standard Specifications](#) and to the Section entitled "Public Safety" elsewhere in these special provisions, and these special provisions. Nothing in these special provisions shall be construed as relieving the Contractor from his responsibility as provided in said [Section 7-1.04 "Public Safety."](#)

The Contractor will not be allowed to close streets. One lane of through traffic shall be maintained at all times with appropriate Signage, Personnel and safety equipment to safely direct traffic through the construction area, unless the contractor submits to the City Engineer a proposed detour plan.

If used, a Detour plan shall meet the criteria for detour plans as shown in the latest edition of the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Zones. The Engineer, and the Director of Public Works; shall approve the Detour Plan, copies shall be sent to the [City of McFARLAND](#) Police/Sheriff Department and Local Fire Agencies and Emergency Organizations, i.e. Hospitals and Ambulance services, and the California Highway Patrol. Said

Detour Plan shall clearly state the dates and times of closure. Closures shall only be allowed during working hours, and the roadway shall be made passable for passenger type vehicles at the close of the work each day.

The Contractor shall be responsible for all flaggers, barricades, delineators, cones, reflective media, signs and other traffic control measures, [including traffic control system for lane closure](#), necessary for the safe control of traffic and protection of the work.

The Contractor shall notify in writing all residents, commercial establishments and others affected by the construction, 5 days prior to the beginning of construction. A standard form may be used.

The Contractor shall also place "TEMPORARY NO PARKING" signs, in the areas of construction a minimum of 48 hours prior to beginning work for, AC Cold Planing, HMA Paving, and Curb and Gutter Replacement, as necessary for striping and placement of signs.

The Contractor is responsible for the repair of any damage done by emergency or other vehicles, inadvertent or not.

The Contractor shall review with the City Engineer, Project Engineer, Director of Public Works and the Chief of Police, his proposed method of barricading and signing in the field and shall comply with any request they may make. Said review shall be at least 48 hours in advance of construction. Contractor shall also notify in writing the [Project Engineer](#), the City Police, Fire and County Fire Departments, and Sheriffs Department of his proposed construction schedule.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders including any section closed to public traffic.

The Contractor shall notify local authorities of the Contractor's intent to begin work at least 5 days before work is begun. The Contractor shall cooperate with local authorities relative to handling traffic through the area and shall make arrangements relative to keeping the working area clear of parked vehicles.

Whenever work vehicles or equipment are parked on the shoulder within 6 ft. of a traffic lane, the shoulder area shall be closed with fluorescent orange traffic cones or portable delineators placed on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 24-ft intervals to a point not less than 24 ft. past the last vehicle or piece of equipment. A minimum of 9 traffic cones or portable delineators shall be used for the taper. A W20-1 (ROAD WORK AHEAD) or W21-5b (RIGHT/LEFT SHOULDER CLOSED AHEAD) or C24(CA) (SHOULDER WORK AHEAD) sign shall be mounted on a portable sign stand with flags. The sign shall be placed where designated by the Engineer. The sign shall be a minimum of 48in x 48in in size. The Contractor shall immediately restore to the original position and location a traffic cone or delineator that is displaced or overturned, during the progress of work.

A minimum of one traffic lane, not less than [11 ft.](#) wide, shall be open for use by public traffic in each direction of travel.

The contractor shall provide a traffic control plan for approval prior to beginning work on the project. Traffic control plans shall be specific to the project area, showing appropriate lane usage, turn pockets and side streets, and shall conform to the provisions of the CAMUTCD.

Full compensation for performing all of the work required under these Special Provisions shall be considered as included in the contract price paid for the [TEMPORARY TRAFFIC CONTROL](#) involved and no additional compensation will be allowed therefor.

10-1.09 NOTICE TO RESIDENTS AND AGENCIES

The Contractor shall give a written notice to all property residents adjacent to and affected by his work at least five (5) working days in advance of beginning the work, indicating the work to be performed and the approximate length of time that the property owner or tenant will be affected by his operations. A standard form may be used.

For every occurrence when property access, sewer service or water source is to be interrupted by the Contractor's work, the Contractor shall give written notice to all affected residents/tenants not less than two (2) calendar days nor more than five (5) calendar days prior to said interruption. These notice(s) shall be in addition to the initial notice to residents described above.

The Contractor shall conduct his operations in a manner which minimizes these disruptions, shall so instruct his labor force and subcontractors to minimize disruption, and shall provide accurate and timely information to residents and business along the work as well as the public. All workers shall conduct themselves in a respectful and businesslike manner while engaged in work on this project.

Full compensation for performing all of the work required under these Special Provisions shall be considered as included in the contract price paid for [TEMPORARY TRAFFIC CONTROL](#) and no additional compensation will be allowed therefor.

10-1.10 PRESERVATION OF PROPERTY

Attention is directed to the provisions in [Section 5-1.36, "Property and Facility Preservation,"](#) of the Standard Specifications and these special provisions.

Protection: The Contractor shall protect all private and public property and shall replace, repair, or pay for any damage thereto.

Existing trees, shrubs and other plants, that are not to be removed as shown on the plans or specified elsewhere in these special provisions, and are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor. Damaged or injured plants shall be removed and disposed of.

Replacement planting of injured or damaged trees, shrubs and other plants shall be completed not less than 20 working days prior to acceptance of the contract. Replacement plants shall be watered as necessary to maintain the plants in a healthy condition.

10-1.11 UTILITIES

It shall be the obligation of the Contractor to notify the various utility companies at least three (3) days in advance of closing and/or tearing up of the street affecting said utility companies.

It shall be the obligation of the Contractor to immediately notify the affected utility company if relocation of any utilities will be required.

10-1.12 PEDESTRIAN ACCESS

Pedestrian access shall be maintained on all existing crosswalks and all existing wheelchair ramps during construction. If the Contractor's operations require the closure of one walkway, then another walkway shall be provided nearby, off the traveled roadway.

Access: Access shall be provided to all businesses and residences whenever practicable. The Contractor shall conduct his operations so as to cause the least inconvenience to both vehicular and pedestrian access.

Full compensation for providing said pedestrian facilities shall be considered as included in the contract price paid for the [various items](#) of work involved and no additional compensation will be allowed therefor.

10-1.13 EXISTING HIGHWAY FACILITIES

The work performed in connection with various existing highway facilities shall conform to the provisions in [Section 15, "Existing Facilities," of the Standard Specifications](#) and these special provisions.

Residue from saw cutting operations shall be removed from the pavement surface by vacuuming or other approved method and shall not be allowed to flow across the pavement nor be left on the surface of the pavement. Residue from saw cutting operations shall be disposed of outside the highway right of way in conformance with the provisions in [Section 14-10, "Solid Waste Disposal And Recycling" of the Standard Specifications](#).

Full compensation for conforming to the requirements for the control, removal and disposal of residue resulting from saw cutting operations shall be considered as included in the contract price paid for the item of work involved and no additional compensation will be allowed therefor.

REMOVE ASPHALT CONCRETE DIKE

Existing asphalt concrete dike, where shown on the plans to be removed, shall be removed. Prior to removing the dike, the outside edge of the asphalt concrete to remain in place shall be cut on a neat line to a [minimum depth of 2 inches](#).

At the Contractor's option, dikes may be removed by the cold plane method. When the cold plane method is selected, saw cutting the outside edge to a neat line will not be required.

The dike shall be removed in such a manner that the surfacing which is to remain in place is not damaged. The dike shall be disposed of outside the highway right of way in conformance with the provisions in [Section 7-1.13 of the Standard Specifications](#).

Full compensation for removing the dike shall be considered as included in the contract lump sum price paid for [SITE DEMOLITION, GRADING, BALANCE ROADWAY/SITE TO NEW GRADE](#) and no separate payment will be made therefor.

REMOVE CONCRETE

Concrete, designated on the plans to be removed, shall be removed and disposed of.

Where no joint exists between concrete to be removed and concrete to remain in place, the concrete shall be cut in a neat line to a full depth with a power driven saw before concrete is removed.

The concrete shall be removed in such a manner that the surfacing which is to remain in place is not damaged. The concrete shall be disposed of outside the highway right of way in conformance with the provisions in [Section 14-10 "Solid Waste Disposal And Recycling", of the Standard Specifications](#).

Full compensation for removing concrete shall be considered as included in the contract lump sum price paid for **SITE DEMOLITION, GRADING, BALANCE ROADWAY/SITE TO NEW GRADE** and no separate payment will be made therefor.

REMOVE AND DISPOSE OF EXISTING ROADWAY SURFACE

Existing roadway surface, where shown on the plans to be removed, shall be removed. Prior to removing the roadway surface, the outside edge of the asphalt concrete to remain in place shall be cut on a neat line to full depth. The roadway surface shall be removed in such a manner that the surfacing which is to remain in place is not damaged.

The removed roadway surface shall be disposed of in conformance with the provisions in **Section 14-10, "Solid Waste Disposal And Recycling"** of the Standard Specifications.

The contract price paid for removal of the existing roadway surface shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing the roadway surface and disposing of the removed material, including all costs of hauling, as specified in the Standard Specifications and these special provisions and as directed by the Engineer.

Payment for removal and disposal of the existing roadway surface shall be made under the heading of **SITE DEMOLITION, GRADING, BALANCE ROADWAY/SITE TO NEW GRADE** and no additional allowance will be allowed therefor.

10-1.14 ROADSIDE SIGNS

All details and dimensions for roadside signs and the installation thereof shall conform to the current State of California, Department of Transportation, Sign Specifications, Traffic Manual, Standard Specifications, Standard Plans, and these special provisions.

Traffic Sign Specifications for California sign codes are available for review at:

<http://www.dot.ca.gov/hq/traffops/signtech/signdel/specs.htm>

Traffic Sign Specifications for signs referenced with Federal MUTCD sign codes can be found in Standard Highway Signs Book, administered by the Federal Highway Administration, which is available for review at:

http://mutcd.fhwa.dot.gov/ser-shs_millennium.htm

Information on cross-referencing California sign codes with the Federal MUTCD sign codes is available at:

<http://www.dot.ca.gov/hq/traffops/signtech/signdel/specs.htm>

Existing roadside signs and posts, at locations shown on the plans, shall be removed, relocated, or salvaged as shown on the plans or as directed by the Engineer. ~~Existing roadside "stop signs" and "stop ahead" signs, whether shown on the plans or not, shall be removed and salvaged as directed by the Engineer.~~ Unless specified otherwise, said signs shall be salvaged, delivered to and stockpiled at the **City's Maintenance Yard**.

New roadside signs and posts, or other alternate mountings as shown on the plans, shall be installed at the locations shown on the plans or as directed by the Engineer. New and relocated signs shall be installed on appropriately sized **standard galvanized square tube posts** as directed by the Engineer.

Existing roadside signs shall not be removed until replacement signs have been installed or until the existing signs are no longer required for the direction of public traffic, unless otherwise directed by the Engineer.

Full compensation for removing existing roadside signs, including delivery to and stockpiled at the **City's Maintenance Yard** shall be considered as included in the prices paid for **ADJUST/RELOCATE EXISTING SIGN, FINISH AND INSTALL NEW POLE** and no separate payment will be made therefor.

Full compensation for furnishing and installing new roadside signs shall be considered as included in the contract price paid for **each sign complete in place** and no additional payment will be made therefor.

10-1.15 LED STOP SIGNS

The FLASHING LED STOP SIGN SYSTEM is a solar powered pole mounted LED enhanced STOP (R1-1) sign. All installations are required to be installed as recommended by the manufacturer.

Solar power is required and shall include a minimum 13-watt panel, Nickel Metal Hydride (NiHM) 14,000mAh battery with cabling and mounting hardware. Solar panel shall be sized for Winter Solstice in **McFARLAND California**.

SOLAR-POWERED FLASHING LED SIGN SYSTEM INCLUDES:

1. Foundations
2. Solar Panel

5. Cables
6. Steel Pole
7. LED enhanced sign
8. Battery

SUBMITTALS:

Submit the following before shipping the sign to the job site:

1. Delivery form including Contract number and contact information.
2. Manufacturer's name, contact information, and installation instructions.
3. Maintenance manuals (2 copies).
4. Factory testing documentation for the sign.
5. Operation manuals (3 copies).
6. Shop drawings showing the mechanical sign support, showing all electrical connections (2 copies).
7. Warranty documentation before installation.

Submit a Certificate of Compliance for each of the components used in the installation of the sign.

QUALITY CONTROL AND ASSURANCE

Functional Testing

The sign must be factory tested.

Warranty

Furnish a 3 year replacement warranty from the manufacturer for Flashing LED Sign and accessories against any defects or failures. The effective date of the warranty is the date of contract acceptance.

Provide a written warranty from the manufacturer against defects in the materials and workmanship for the sign for a period of three years after installation.

If the sign or components fail within the warranty period, provide replacements at no cost to the City within 10 working days of receipt of failure.

Provide from the manufacturer replacement components covered by warranty repairs at no charge in exchange for the part being replaced. The manufacturer must bear all the outbound shipping costs for warranty replacement components.

MATERIALS

General

Obtain the sign from the following or an approved equal:

- TapCo
www.tapconet.com
- Traffic Safety Corporation
www.xwalk.com

Specifications

The sign must meet the standards set forth in the California Manual on Uniform Traffic Control Devices (CAMUTCD)

The Flashing LED Sign must comply with the requirements in the following table:

Description	Requirements
Sign Reflective Sheeting	Compliance with current MUTCD requirements for reflectivity, materials and mounting guidelines.
Pole Mounting	Requirements per MUTCD guidelines
LEDs	Minimum 8 LEDs Compliant to MUTCD Section 2A.07
LED flash rate	50 to 60 times per minute per MUTCD Section 2A.07
Sign	0.080 aluminum with stainless / aluminum fasteners and weatherproof sealant
LEDs	100,000 hour rated life

Hardware	Theft deterrent hardware
Serial # plate	With Manufacture date for informational and warranty purposes
Dimmer	Dim display at night
LED wiring	In Series for simultaneous flash pattern per MUTCD
Wiring	Completely enclosed in sign casing with access for replacement
Output Power of LEDs	60,000 mcd brightness

The sign enclosure must have the manufacturer's name, model number, serial number, date of manufacture, identification number, rated voltage, current, power, and volt-amperes permanently marked.

Sign components including the electronic components must be easily replaceable in the field and not require special tools outside those normally found in the industry

LEDs must be rated for 8 years operating life for the sign.

LED Display

Maximum current must be adjustable to different values to suit various application requirements. Light intensity must adjust automatically to provide optimum viewability under all ambient light conditions.

The LEDs must be an ITE (Institute of Traffic Engineers) amber and have a wavelength from 590 nm to 600 nm and must be rated for 100,000 hours or more continuous illumination.

The luminance of the LED must be 650 foot-lambert or higher per California Test 606.

LEDs must have minimum luminous intensity of 2500 cd on the optical axis and maximum intensity of 100 cd at 15 degrees horizontal from the axis

LEDs for the sign must meet or exceed the 85 percent of the standard light output after 48 months of continuous use over the temperature range.

The individual LEDs must be wired such that a catastrophic loss or failure of one LED will result in the loss of not more than 5 percent of each segment.

Mechanical

Provide non-sealed, ventilated housing with tamper proof fasteners of brass and stainless steel hardware.

Signs to have a 2" to 4" wide casing, depending on model, between front and rear sign faces to enclose all wiring and LED light connections.

Internal components must be easily accessible and designed to allow efficient in-field repair without removal of the sign from the mounting post. Show attachments and mounting configuration in the shop drawings.

Power Source

Solar power: 13W solar panel minimum.

Battery

Nickel Metal Hydride (NiHM) 14,000mAh

Photovoltaic Modules

The modules shall consist of polycrystalline cells in series. Cells shall feature an anti-reflective coating and a low iron glass covering. Cells shall be encapsulated to protect them from the environment. Each module shall feature a weather tight junction box for connecting the array output cable to the module terminals. Power modules greater than 60 watts shall feature a minimum warranty of 15 years for power output. Modules, 10 to 50 watts, shall feature a minimum warranty of 5 years for power output. All modules shall feature an anodized aluminum frame for mechanical support.

CONSTRUCTION

Install the Flashing LED Sign under the manufacturer's instructions.

Install the Flashing LED Sign assembly on a standard galvanized square tube steel pole/post.

PAYMENT

Payment for this item of work shall be made per the Contract price [paid for FURNISH AND INSTALL SOLAR-POWERED FLASHING LED STOP SIGN - R1-1 \(36"x36"\)](#), which price shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in installing the [solar-powered flashing LED sign on a steel pole](#) complete with concrete footing; including configuring system, complete in place as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer; and no additional allowance will be made therefor.

10-1.16 WATERING

Developing a water supply and applying watering shall conform to the provisions in [Section 18, "Dust Palliatives," of the Standard Specifications](#) and these special provisions.

[The City will provide all construction water at no charge to the Contractor all fees will be waived. The Contractor will be required to provide a water meter at his/her own expense. The City Water Department will determine the location of the meter, within 1/2 a mile of the project limits, to better suit the existing water system.](#)

The [City of McFARLAND encourages](#) you to conserve water in all construction activities.

When the contract does not include a contract pay item for develop water supply, full compensation for developing a sufficient supply of water required for the work shall be considered as included in the prices paid for the various contract items of work involving the use of water and no separate payment will be made therefor.

10-1.17 COLD PLANE ASPHALT CONCRETE PAVEMENT

Existing asphalt concrete pavement shall be cold planed at the locations and to the dimensions shown on the plans.

Cold planning asphalt concrete pavement includes the removal of pavement markers, traffic stripes, and pavement markings within the area of cold planning.

Planing asphalt concrete pavement shall be performed by the cold planing method. Planing of the asphalt concrete pavement shall not be done by the heater planing method.

Schedule cold planing activities so that not more than 24 hours elapses between the time the pavement is cold planed and the HMA is placed.

Lower Frame and Cover

Lower frames and covers of existing facilities before cold planning. Temporarily fill utility depressions with HMA (Type B) before opening the lane to public traffic.

Cold Planing Equipment

Cold planing machine must be:

1. Equipped with a cutter head width that matches the planing width. If the only available cutter head width is wider than the cold plane area shown, submit to the Engineer a request for using a wider cutter head. Do not cold plane until the Engineer approves your request.
2. Equipped with automatic controls to control the longitudinal grade and transverse slope of the cutter head and:
 - 2.1. If a ski device is used, it must be at least 30 feet long, rigid, and 1-piece unit. The entire length must be used in activating the sensor.
 - 2.2. If referencing from existing pavement, the cold planing machine must be controlled by a self-contained grade reference system. The system must be used at or near the centerline of the roadway. On the adjacent pass with the cold planing machine, a joint matching shoe may be used.
3. Equipped to effectively control dust generated by the planing operation.
4. Operated so that no fumes or smoke is produced.

Replace broken, missing, or worn machine teeth.

Grade Control and Surface Smoothness

The depth, width, and shape of the cut shall be as shown on the typical cross sections or as designated by the Engineer. The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the planed area shall be neat and uniform. Planing asphalt concrete pavement operations shall be performed without damage to the surfacing to remain in place.

Planed widths of pavement shall be continuous except for intersections at cross streets where the planing shall be carried around the corners and through the conform lines. Following planing operations, a drop-off of more than 1.75 in (45 mm) will not be allowed between adjacent lanes open to public traffic.

Temporary HMA Tapers

If a drop-off between the existing pavement and the planed area at transverse joints cannot be avoided before opening to traffic, construct a temporary HMA taper. HMA for temporary taper must be:

1. HMA for temporary tapers shall be the same quality as the HMA used elsewhere on the project or shall conform to the material requirements for minor HMA.
2. Placed to the level of the existing pavement and tapered on a slope of 30:1 (Horizontal: Vertical) or flatter to the level of the planed area.
3. Compacted by any method that will produce a smooth riding surface.
4. Completely removed, including the removal of loose material from the underlying surface, before placing the permanent surfacing. The removed material shall be disposed of outside the highway right of way in conformance with the provisions in [Section 14-10, "Solid Waste Disposal And Recycling" of the Standard Specifications](#).

Where a portion of the existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to the full depth of asphalt concrete before removing the surfacing. Attention is directed to ["Existing Highway Facilities"](#) of these special provisions concerning residue from saw cutting.

Disposal of Planed Material

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be disposed of in conformance with the provisions in [Section 14-10, "Solid Waste Disposal And Recycling" of the Standard Specifications](#). Removal operations of cold planed material shall be concurrent with planing operations and follow within 50 feet (15 m) of the planer, unless otherwise directed by the Engineer. **Refer to Section 5-1.17A Disposal of obliterated/surplus materials, for additional requirements for Disposal of Planed Material.**

MEASUREMENT AND PAYMENT

Cold plane asphalt concrete pavement will be [measured by the square feet](#). The quantity to be paid for will be the actual area of surface cold planed irrespective of the number of passes required to obtain the depth shown on the plans.

[The contract price paid per square feet for cold plane](#) asphalt concrete pavement shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in cold planing asphalt concrete surfacing and disposing of planed material, including furnishing the HMA for and constructing, maintaining, removing, and disposing of temporary HMA tapers, [and for doing all the work involved in lowering existing frames and covers](#) as specified in the Standard Specifications and these special provisions and as directed by the Engineer.

Full compensation for removal of pavement markers, thermoplastic traffic stripe, painted traffic stripe, and pavement marking in areas of cold plane asphalt concrete is included in the contract price paid for cold plane asphalt concrete and no separate payment will be made therefor.

Costs for saw cutting, demolition, removal, stockpiling of material, transportation, and disposal of all other materials, including curbs, sidewalks, cross gutters, and curb ramps shall be considered as included in the contract price for which the work is appurtenant to, and no additional compensation will be allowed therefore.

10-1.18 EARTHWORK – COMPACTION OF NATIVE MATERIAL

Earthwork shall conform to the provisions in [Section 19, "Earthwork," of the Standard Specifications](#) and these special provisions.

Grade Tolerance

Immediately before placing subsequent layers of material, prepare the grading plane to comply with the following:

1. Where HMA is to be placed, the grading plane must not vary more than 0.05 foot above or below the grade established by the Engineer.
2. Where PCC base or pavement is to be placed, the grading plane must not extend above the grade established by the Engineer.
3. Where structure approach slabs or the thickened portion of sleeper slabs are to be placed, the grading plane for the embankments beneath must not extend above the grade established by the Engineer.
4. If material to be placed on the grading plane is paid by the cubic yard, the grading plane at any point must be within 0.05 foot above the grade established by the Engineer.
5. If subbase or base material to be placed on the grading plane is paid by the ton, the grading plane at any point must be within 0.10 foot above the grade established by the Engineer.

Surplus excavated material shall become the property of the Contractor and shall be disposed of in conformance with the provisions in [Section 14-10, "Solid Waste Disposal And Recycling," of the Standard Specifications](#). Where a portion of the

existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to the full depth of asphalt concrete before removing the surfacing. Full compensation for cutting the existing surfacing shall be considered as included in the contract price paid for [SITE DEMOLITION, GRADING, BALANCE ROADWAY/SITE TO NEW GRADE](#) and no additional compensation will be allowed therefor. Attention is directed to "Existing Highway Facilities" of these special provisions concerning residue from saw cutting.

Unsuitable material encountered below the natural ground surface in embankment areas or below the grading plane in excavation areas shall be excavated and disposed of as directed by the Engineer. Unsuitable material is defined as material the Engineer determines to be:

1. Of such unsuitable nature as to be incapable of being compacted to specified density using ordinary methods at optimum moisture content; or
2. Too wet to be properly compacted and circumstances prevent suitable in-place drying prior to incorporation into the work; or
3. Otherwise unsuitable for the planned use.

The presence of excessive moisture in a material is not, by itself, sufficient cause for determining that the material is unsuitable. The removal and disposal of such unsuitable material will be considered as part of the cost of the roadway excavation for the quantities involved and no other compensation for payment will be allowed. When unsuitable material is removed and disposed of, the resulting space shall be filled with material suitable for the planned use. Such suitable material shall be placed and compacted in layers as hereinafter specified for constructing embankments.

Compaction Requirements

Compaction of native material shall be in accordance with [Section 19-5, "Compaction," of the Standard Specifications](#). The subgrade under areas to be paved shall be compacted to a depth of **12 inches and to a density of not less than what is shown on the PLANS, of the maximum density as determined by ASTM method (current edition) D1557**. The moisture content of material to be compacted must be such that the specified relative compaction is attained, and the surface is in a firm and stable condition.

Do not compact material that contains excessive moisture until the material is dry enough.

One compaction test shall be taken in each lane direction **at least every 300 feet** and/or at locations designated by the ENGINEER.

The in-place field density shall be determined in accordance with ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938.

The City shall pay for all initial density acceptance testing, all costs incurred for any additional testing due to failed tests shall be the responsibility of the Contractor, and shall be withheld from the retention payment to be disbursed to the Soils Testing Lab.

Payment for the scarification and compaction of [Native Material](#) shall be made by the contract unit price per [cubic yard](#), as calculated by the length, width, and depth, of the completed section. If the Contractor elects to excavate and replace basement (Native) material to facilitate compaction, full compensation for that work will be considered as included in the contract items of work requiring the compaction of earthwork and no separate payment will be made therefor.

10-1.19 AGGREGATE BASE

Aggregate Base shall be [Class 2](#) and shall conform to the provisions in [Section 26, "Aggregate Bases," of the Standard Specifications](#). This work shall consist of furnishing, spreading and compacting aggregate bases as specified in the Standard Specifications, to the limits and section as shown on the plans.

Compaction Requirements

Immediately after completion of the spreading operations, compact each layer of the base course, as specified, with approved compaction equipment. The number, type, and weight of rollers shall be sufficient to compact the material to the required density within the same day that the aggregate is placed on the subgrade. The moisture content of the material during placing operations shall be within ± 2 percentage points of the optimum moisture content as determined by ASTM D6938.

Aggregate base shall be compacted to a minimum of **95 percent of the maximum density as determined by ASTM method (current edition) D1557**. One compaction test shall be taken in each lane direction at least every 250 feet and/or at locations designated by the Engineer.

The in-place field density shall be determined in accordance with ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938.

The City shall pay for all initial density acceptance testing, all costs incurred for any additional testing due to failed tests shall be the responsibility of the Contractor, and shall be withheld from the retention payment to be disbursed to the Soils Testing Lab.

Grade Tolerance

The surface of the finished aggregate base at any point shall not vary more than 0.05-foot above or below the grade established by the Engineer.

Maintenance

The Contractor shall maintain the base course in a satisfactory condition until the full pavement section is completed and accepted by the Engineer. The surface shall be kept clean and free from foreign material and properly drained at all times. Maintenance shall include immediate repairs to any defects and shall be repeated as often as necessary to keep the area intact. Any base course that is not paved over prior to the onset of winter shall be retested to verify that it still complies with the requirements of this specification. Any area of base course that is damaged shall be reworked or replaced as necessary to comply with this specification.

Equipment used in the construction of an adjoining section may be routed over completed base course, if no damage results and the equipment is routed over the full width of the base course to avoid rutting or uneven compaction.

The Contractor shall remove all survey and grade hubs from the base courses prior to placing any bituminous surface course.

Payment

Aggregate Base shall be paid for at the Contract **unit price per ton**. Said price includes full compensation for furnishing all labor, materials, tools, equipment and for doing all the work involved in constructing the compacted class 2 aggregate base complete in place, including maintenance of base, as shown on the plans and specified herein, and no additional allowance will be allowed therefor.

10-1.20 CEMENT TREATED SUBGRADE

This work consists of mixing in place material, cement and water, and spreading and compacting the mixture to the lines, grade and dimensions shown on the plans and as specified in these special provisions. Cement-treated subgrade shall be constructed in a series of parallel lanes such that longitudinal and transverse joints are minimized.

Prior to the first day of soil-cement production, it is advisable to perform a laboratory determination of the maximum dry density and optimum moisture content in order to have a preliminary indication of relative compaction. Determine the maximum density and optimum moisture content of the cement treated soil in accordance with ASTM D 1557. Following the first day's production, these values can be determined from field mixed soil-cement; samples to be taken after final mixing and prior to initial compaction.

The cement content of the completed mixture shall be **3 percent** by weight of the in-place dry material. For estimating purposes, an in-place dry unit weight of material of **125 pcf** should be used.

The Engineer may order an increase or decrease in the amount of specified cement content. If such increase or decrease is ordered, the compensation payable to the Contractor for cement treatment will be increased or decreased on the basis of the cost of cement per ton, f.o.b. the cement mill (including sales tax) plus the freight cost per ton, a cash or trade discount offered or available will be credited to the State notwithstanding the fact that the discount may not have been taken by the purchaser.

The Contractor shall furnish the Engineer satisfactory evidence of the cost of cement used on the project during the period involved in the ordered change in cement content. The Contractor shall maintain recorders that enable a clear determination of the cost of cement used during the period. The Contractor's records pertaining to the cost of cement shall be open to inspection or audit by Departmental representatives during the life of the contract and for no less than 3 years after completion thereof. The Contractor shall retain the records for that period.

If the price of cement as determined from the Contractor's records is, in the opinion of the Engineer, excessive or if the Contractor does not furnish satisfactory evidence of the cost of cement, the Engineer will determine the price to be the lowest wholesale cost at which cement would be available in the quantities concerned delivered to the job site, less discounts, available. No additional adjustment of compensation will be made for variations in the cost of work resulting from the change in the quantity of Portland cement.

The cement content of samples, after establishing the spread rate in the first 500 feet of each days operation, shall be taken a minimum of once every 1000 feet from the mixtures spread on the roadbed. The cement content of the samples shall not vary above or below the specified cement content more than one percent of the weight of the dry material as determined by California Test 228.

Cement shall be Type II Portland cement conforming to the provisions in **Section 90-1.02B(2), "Cement," of the Standard Specifications**. Mineral admixtures shall not be substituted for cement. Water shall conform to the provisions in **Section 90-1.02D, "Water," of the Standard Specifications**. **Material** to be treated shall be scarified and thoroughly broken up by means of equipment constructed and operated to leave an undisturbed plan at a uniform depth below the surface shown on the typical cross section. Precautions shall be taken to avoid forming furrows of loosened material below the referenced plane and to obtain a uniform condition of the material for the full width to be treated.

Material other than rock shall be broken up so that the broken pieces will pass a one-inch sieve. Before the addition of cement and water to the material, rocks greater than 2-1/2 inches in size shall be removed and the cost of removing rocks will be paid for an extra work as provided in [Section 4-1.05, "Changes and Extra Work," of the Standard Specifications](#).

The material shall then be shaped to conform to the typical sections, lines and grades as shown on the plans prior to the addition of cement. The blanket shall be limited to the size of the material that can be passed through the mixing machine at each operation.

Cement shall not be spread upon the prepared material more than 4 hours ahead of the road-mixing operation. Cement shall be uniformly spread by mechanical equipment in the amount necessary to meet the cement content requirements. The rate of cement spread per linear foot of windrow or blanket shall not vary more than 10 percent from the designated rate. No traffic other than the mixing equipment will be allowed to pass over the spread cement until after completion of mixing.

Mixing of the soils, cement, and water will be performed using a four-wheel drive rotary mixer (CMI RS- 650, CAT 500 or equivalent). The mixing machine has equipment provisions for introducing water at the time of mixing through a metering/pump device and automatic elevation/depth controls.

The automatic depth controls shall be set to the Engineer's specified depth of treatment. The machine will be set into the ground on the grade and lowered to controlled depth. Using a standard measuring tape, the depth will be measured and compared to the Engineer's specified depth. The depth control may be adjusted, if necessary, to achieve the specified depth of treatment. The depth of treatment will be checked, throughout the day.

Phenolphthalein, a color-sensitive pH indicator solution, is used to indicate the presence of cement in the soil. The soil will attain a pinkish color with a pH on the order of 10. A trial test on the natural or untreated soil by spraying the solution onto the soils shall be performed. Typically, there is no change in color with the application of the solution to the natural soil.

After an initial mix, a test pit through the treated layer and into the natural soil shall be excavated; the phenolphthalein solution shall be sprayed along the face of the excavation to determine the degree of uniformity and pulverization. The presence of streaks or pockets of cement or non-uniformity of color reaction is considered evidence of inadequate mixing. The depth of treatment shall be confirmed.

The resulting mixture shall be uniform and more than one pass of the equipment through the material may be required. If equipment is used that requires more than one pass and cement is applied in a dry state, at least one pass shall be made before mixing water is added to the material. The treated mixture shall be spread to the required planned width, grade and cross section. The mixture may be spread and compacted in one layer.

Cement treated material shall be compacted to a relative compaction of not less than 95 percent. In-place density of cement treated soils may be controlled relative to the wet density of the laboratory determined moisture density relation. Because moisture is a critical element in the stabilization process, testing by this method allows for relative compaction to be achieved at higher moisture contents. Remove material that does not meet density requirements. Remove areas that lose required stability, compaction or finish. Replace with cement-treated mixture and compact and test in accordance with density control methods.

The Engineer may accept the section if no more than 1 of the 5 most recent density tests is below the specified density and the failing test is no less than 93 percent relative compaction.

No more than 2 hours shall elapse between the time water is added to the material and cement and the time of completion of initial rolling. No more than 3 hours shall elapse between the time water is added to the material and cement and the time of completion of final compaction after trimming. Compacting equipment shall adequate to produce the required compaction within the operation time limits specified.

Rolling shall be performed in such a manner that the finished surface shall be true to the required grade and cross section within the surface tolerance specified. Areas inaccessible to rollers shall be compacted to the required compaction by other means satisfactory to the Engineer.

The finished surface of cement treated material shall not vary more than 0.08-foot above or below grade established by the Engineer. The thickness of cement treated materials shall not be more than 0.05-foot thinner than the planned thickness at any point.

The completed cement treated subgrade shall be surfaced with a curing seal consisting of SS1 or CSS1 grade asphaltic emulsion at a rate of 0.10 to 0.15 gallons per square yard of surface. The curing seal shall be applied on the same day as finish rolling is completed.

Microcracking operations shall commence after 36 to 48 hours of the curing period. Microcracking of the concrete treated material shall be accomplished by using a 12-ton steel-wheel vibratory roller, traveling at a speed of approximately 2 mph and vibrating at maximum amplitude (or as directed by the Project Engineer). The section shall have 100% coverage exclusive of the outside 1 foot so as to induce minute cracks in the concrete treated material. Additional passes of the steel roller may be

required to achieve the desired crack pattern as determined by the Project Engineer. It is anticipated that the roller will have to make between 1 to 4 passes to achieve the required microcracking.

After microcracking, areas where cement treatment has been performed shall be cured as provided for cement treated base in [Section 27-1.03I, "Curing," of the Standard Specifications](#). No equipment or traffic shall be permitted on the cement treated material during the first 3 days after applying the curing compound, unless otherwise permitted by the Engineer.

Full compensation for applying a curing compound, in curing areas where cement treatment has been performed shall be considered as included in the contract price paid per [square foot](#) for cement treatment and no separate payment will be made therefor. Cement treatment will be measured by the [square foot](#). The area in [square foot](#) will be determined from measurement of the finished surface of cement treated material. The measurement will be made parallel to the ground slope.

The contract price paid per [square foot](#) for cement treatment for the thickness specified shall include full compensation for furnishing all labor, materials (including cement in the amount specified), tools, equipment, and incidentals, and for doing all the work involved in mixing, spreading, compacting cement treatment, and microcracking, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.21 HOT MIX ASPHALT

Hot Mix Asphalt (HMA) shall be [Type A](#) and shall conform to the provisions in [Section 39, "Hot Mix Asphalt," of the 2010 Standard Specifications](#) and these special provisions.

The producing and placing of hot mix asphalt (HMA) shall comply with [Section 39 "Hot Mix Asphalt", of the 2010 Caltrans Standard Specifications](#).

The HMA construction process shall be: **STANDARD**; per [Section 39-2 "Standard" of the 2010 Standard Specifications](#). Establish, maintain, and change a quality control system for HMA, per [Section 39-1.04 "Contractor Quality Control," of the 2010 Standard Specifications](#).

The grade of asphalt binder to be mixed with aggregate for [Type A](#) HMA shall be [PG Grade 64-10](#) and shall conform to the provisions in [Section 92, "Asphalts" of the 2010 Standard Specifications](#).

The aggregate for [Type B](#) HMA shall conform to the [1/2–inch HMA Types A and B](#) grading specified in [Section 39-1.02E, "Aggregate," of the 2010 Standard Specifications](#).

You may produce HMA using reclaimed asphalt pavement (RAP). HMA produced using RAP must comply with the specifications for HMA except aggregate quality specifications do not apply to RAP. You may substitute RAP aggregate for a part of the virgin aggregate in HMA in a quantity not exceeding 15.0 percent of the aggregate blend.

Assign the substitution rate of RAP aggregate for virgin aggregate with the job mix formula (JMF) submittal. The JMF must include the percent of RAP used. If you change your assigned RAP aggregate substitution rate by more than 5 percent (within the 15.0 percent limit), submit a new JMF.

Hot Mix Asphalt Mix Design – Perform a mix design that produces HMA in compliance with [Section 39-1.03 "Hot Mix Asphalt Mix Design Requirements," of the 2010 Standard Specifications](#).

Subgrade to receive HMA must comply with the compaction and elevation tolerance specifications in the sections for the material involved. Subgrade must be free of loose and extraneous material. If HMA is paved on existing base or pavement, remove loose paving particles, dirt, and other extraneous material by any means including flushing and sweeping.

Tack coat must comply with the specifications for asphaltic emulsion in [Section 94, "Asphaltic Emulsion," of the 2010 Standard Specifications](#) or asphalt binder in [Section 92, "Asphalts" of the 2010 Standard Specifications](#). Tack coat shall be, at the option of the Contractor, either slow-setting asphaltic emulsion, rapid-setting asphaltic emulsion or paving asphalt.

Apply tack coat:

1. To existing pavement including planed surfaces
2. Between HMA layers
3. To vertical surfaces of:
 - 3.1. Curbs
 - 3.2. Gutters
 - 3.3. Construction joints

Before placing HMA, apply tack coat in 1 application at the minimum residual rate specified for the condition of the underlying surface:

HMA Overlay over:	Tack Coat Application Rates for HMA Minimum Residual Rates (gallons per square yard)		
	CSS1/CSS1h, SS1/SS1h and QS1h/CQS1h Asphaltic Emulsion	CRS1/CRS2, RS1/RS2 and QS1/CQS1 Asphaltic Emulsion	Asphalt Binder and PMRS2/PMCRS2 and PMRS2h/PMCRS2h Asphaltic Emulsion
New HMA (between layers)	0.02	0.03	0.02
Existing AC and PCC pavement	0.03	0.04	0.03
Planed pavement	0.05	0.06	0.04

Apply to vertical surfaces with a residual tack coat rate that will thoroughly coat the vertical face without running off.

If authorized, you may:

1. Change tack coat rates
2. Omit tack coat between layers of new HMA during the same work shift if:
 - 2.1. No dust, dirt, or extraneous material is present
 - 2.2. Surface is at least 140 degrees F

Immediately in advance of placing HMA, apply additional tack coat to damaged areas or where loose or extraneous material is removed.

Close areas receiving tack coat to traffic. Do not track tack coat onto pavement surfaces beyond the job site.

If you use an asphalt binder for tack coat, the asphalt binder temperature must be from 285 to 350 degrees F when applied.

Spreading and compaction of HMA shall conform to [Section 39-1.10 "Spreading And Compacting Equipment,"](#) and [Section 39-1.11 "Transporting, Spreading, and Compacting,"](#) of the 2010 Standard Specifications.

Spreading And Compacting Equipment

Paving equipment for spreading must be:

1. Self-propelled
2. Mechanical
3. Equipped with a screed or strike-off assembly that can distribute HMA the full width of a traffic lane
4. Equipped with a full-width compacting device
5. Equipped with automatic screed controls and sensing devices that control the thickness, longitudinal grade, and transverse screed slope

Install and maintain grade and slope references.

The screed must produce a uniform HMA surface texture without tearing, shoving, or gouging.

The paver must not leave marks such as ridges and indentations unless you can eliminate them by rolling.

Rollers must be equipped with a system that prevents HMA from sticking to the wheels. You may use a parting agent that does not damage the HMA or impede the bonding of layers.

In areas inaccessible to spreading and compacting equipment:

1. Spread the HMA by any means to obtain the specified lines, grades and cross sections.
2. Use a pneumatic tamper, plate compactor, or equivalent to achieve thorough compaction.

Transporting, Spreading, And Compacting

Do not pave HMA on a wet pavement or frozen surface.

You may deposit HMA in a windrow and load it in the paver if:

1. Paver is equipped with a hopper that automatically feeds the screed
2. Loading equipment can pick up the windrowed material and deposit it in the paver hopper without damaging base material
3. Activities for deposit, pick-up, loading, and paving are continuous
4. HMA temperature in the windrow does not fall below 260 °F

You may pave HMA in 1 or more layers on areas less than 5 feet wide and outside the traveled way including shoulders. You may use mechanical equipment other than a paver for these areas. The equipment must produce a uniform smoothness and texture.

HMA handled, spread, or windrowed must not stain the finished surface of any improvement including pavement.

Do not use petroleum products such as kerosene or diesel fuel to release HMA from trucks, spreaders, or compactors.

HMA must be free of:

1. Segregation
2. Coarse or fine aggregate pockets
3. Hardened lumps

Longitudinal joints in the top layer must match specified lane edges. Alternate longitudinal joint offsets in lower layers at least 0.5 foot from each side of the specified lane edges. You may request in writing other longitudinal joint placement patterns.

Until the adjoining through lane's top layer has been paved, do not pave the top layer of:

1. Shoulders
2. Tapers
3. Transitions
4. Road connections
5. Private drives
6. Curve widenings
7. Chain control lanes
8. Turnouts
9. Left turn pockets

If the number of lanes change, pave each through lane's top layer before paving a changing lane's top layer. Simultaneous to paving a through lane's top layer, you may pave an adjoining area's top layer including shoulders. Do not operate spreading equipment on any area's top layer until completing final compaction.

If HMA (leveling) is specified, fill and level irregularities and ruts with HMA before spreading HMA over base, existing surfaces, or bridge decks. You may use mechanical equipment other than a paver for these areas. The equipment must produce a uniform smoothness and texture. HMA used to change an existing surface's cross slope or profile is not HMA (leveling).

If placing HMA against the edge of existing pavement, sawcut or grind the pavement straight and vertical along the joint and remove extraneous material without damaging the surface remaining in place. If placing HMA against the edge of a longitudinal or transverse construction joint and the joint is damaged or not placed to a neat line, sawcut or grind the pavement straight and vertical along the joint and remove extraneous material without damaging the surface remaining in place. Repair or remove and replace damaged pavement at your expense.

Rolling must leave the completed surface compacted and smooth without tearing, cracking, or shoving. Complete finish rolling activities before the pavement surface temperature is:

1. Below 150 °F for HMA with unmodified binder
2. Below 140 °F for HMA with modified binder
3. Below 200 °F for RHMA-G

If a vibratory roller is used as a finish roller, turn the vibrator off.

Do not use a pneumatic tired roller to compact RHMA-G.

For Standard and QC/QA, if a 3/4-inch aggregate grading is specified, you may use a 1/2-inch aggregate grading if the total layer thickness is between 0.125 foot and 0.20 foot thick.

Spread and compact HMA under [Section 39-3.03, "Spreading and Compacting Equipment,"](#) and [Section 39-3.04, "Transporting, Spreading, and Compacting,"](#) of the 2010 Standard Specifications if either:

1. Total paved thickness is less than 0.15 foot.
2. Total paved thickness is less than 0.20 foot and a 3/4-inch aggregate grading is specified and used.
3. You spread and compact at:
 - 3.1. Asphalt concrete surfacing replacement areas
 - 3.2. Leveling courses
 - 3.3. Detours not included in the final roadway prism
 - 3.4. Areas the Engineer determines conventional compaction and compaction measurement methods are impeded

Do not allow traffic on new HMA pavement until its mid-depth temperature is below 160 °F.

If you request in writing and the Engineer authorizes, you may cool HMA Type A and Type B with water when rolling activities are complete. Apply water under [Section 17, "Watering," of the 2010 Standard Specifications](#).

Immediately after completion of final compaction of the finished HMA, the contractor shall place temporary striping tape to indicate centerline, lane line location, and stop limit lines. One 4" length piece of 3" wide, reflectorized white foil tape shall be placed at approximately 20 ft. on center for lane delineation, and two 4" length pieces of 3" wide yellow reflectorized foil tape shall be placed parallel and 3" apart to delineate no passing line.

HMA will be measured by the [ton](#) of completed mixture in accordance with the provisions of [Section 9-1.02 "Measurement", of the 2010 Standard Specifications](#).

Payment

[Hot Mix Asphalt \(HMA\)](#) shall be paid for at the [Contract unit price per ton](#). Said price includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in constructing hot mix asphalt, complete in place, as shown on the plans, as specified in these specifications and the special provisions, and as directed by the Engineer.

The contract price [paid per ton for hot mix asphalt \(leveling\)](#) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in hot mix asphalt (leveling), complete in place, as shown on the plans, as specified in these specifications and the special provisions, and as directed by the Engineer.

If there is no item for tack coat and the work is specified, full compensation for tack coat is included in the contract price paid per ton for hot mix asphalt as designated in the Engineer's Estimate and no separate payment will be made therefor.

10-1.21 FOG SEAL

Fog seal refers to applying a slow-setting asphaltic emulsion coat on the new HMA surface to improve the waterproofing of the surface and reduce its aging susceptibility by lowering permeability to water and air.

At the Contractors option the emulsion type shall be either CSS-1h or SS-1h asphaltic emulsion per [Section 94, "Asphaltic Emulsions" of the Caltrans Standard Specifications](#). The application rate shall be [0.03 gallons](#) per square yard.

Fog seals should not to be applied when the atmospheric temperature is below 50°F, and pavement temperature below 59°F.

Immediately before applying a fog seal, the pavement surface must be cleaned with a road sweeper, power broom, or flushed with a water pump-unit to remove dust, dirt, and debris. The pavement surface must be clean and dry before applying the fog seal. If flushing is required, it should be completed 24 hours prior to the application of the fog seal to allow for adequate drying.

Payment for this item of work shall be made by the [contract lump sum](#), which price shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in applying the fog seal and no additional allowance will be allowed.

10-1.22 CONCRETE CURBS AND SIDEWALKS

This work shall consist of constructing minor concrete items including, concrete curbs, gutters, sidewalks, gutter depressions, island paving, curb ramps (wheelchair ramps), and driveways, and textured and colored concrete surfaces of the form and dimensions shown on the PLANS, and shall conform to the provisions of [Section 73, "Concrete Curbs and Sidewalks," of the Standard Specifications](#) and these special provisions.

This work shall be constructed of minor concrete conforming to the provisions in [Section 90-2, "Minor Concrete," except as follows:](#)

1. The maximum size of aggregate used for extruded or slip-formed curb construction shall be at the option of the Contractor, but in no case shall the maximum size be larger than one inch nor smaller than $\frac{3}{8}$ -inch.
2. Minor concrete for [sidewalks, island paving, and curb ramps](#) shall contain not less than [564 pounds of cementitious material per cubic yard](#).
3. Minor concrete for [Curbs, Gutter, gutter depressions, and driveways](#) shall contain not less than [564 pounds of cementitious material per cubic yard](#).

Steel dowels, reinforcing steel, and welded wire reinforcement must comply with [Section 52, "Reinforcement," of the Standard Specifications](#).

Curbs, gutters, sidewalks, gutter depressions, island paving, curb ramps and driveways shall be constructed by using fixed forms, except that curbs, not on structures, may be constructed by using an extrusion machine or a slip-form paver, and sidewalks, not on structures, may be constructed by using a slip-form paver.

Cure concrete using pigmented curing compound [Type 2 Class A or B, per Section 90-1.03B\(3\), "Curing Compound Method," of the Standard specifications](#). Completely coat the exposed faces of the concrete with curing compound.

The concrete shall be placed with dummy-grooved joints not to exceed 10 feet apart, except where shorter lengths are necessary for closures, but no section shall be less than 4 feet long.

Expansion joints of the type called for in the PLANS shall be constructed to replace a dummy groove at spacing of approximately 40 feet or as shown on the PLANS.

Where the PLANS provide for the reconstruction of a portion of an existing curb, gutter, sidewalk, driveway or curb ramp the existing section and the adjacent street paving shall be sawcut to full depth of the existing structure, with an abrasive type saw at the first scoring line or beyond the planned joint and the entire section to be reconstructed shall be removed. The new curb, gutter, sidewalk, driveway or curb ramp shall join the old work at this line. Dirt behind new curb, gutter, sidewalk and/or driveway shall be leveled and compacted.

PREPARING SUBGRADE. Excavation shall be made to the required width and depth, and the subgrade upon which the item is to be built shall be compacted to a firm uniform grade. All soft and unsuitable material shall be removed and replaced with suitable approved material. When required, a layer of approved granular material, compacted to the thickness indicated in the PLANS, shall be placed to form a subbase. The underlying course shall be checked and accepted by the Engineer before placing as spreading operations are started.

Detectable Warning Surfaces

A detectable warning surface must be as approved by the Engineer and must match yellow color no. 33538 of FED-STD-595. Submit a 5-year manufacturer's replacement warranty against defects in a prefabricated detectable warning surface. The 5-year manufacturer's replacement warranty for a prefabricated detectable warning surface must cover defects in dome shape, color fastness, sound-on-cane acoustic quality, resilience, and attachment. The 5-year warranty period starts at Contract acceptance.

Install prefabricated detectable warning surface under the manufacturer's instructions.

- **Cast-in-place detectable warning surfaces.** All costs for furnishing all labor, materials, tools, equipment, and incidentals; and for doing all the work involved in the installation of cast-in-place detectable warning surfaces shall be considered as included in the contract price paid for the item of work involved (sidewalks, curb ramps, driveways/drive approaches) and no additional compensation will be allowed therefor.
- ~~Glue down detectable warning surfaces will be paid for at the contract price per square foot. All costs for furnishing all labor, materials, tools, equipment, and incidentals; and for doing all the work involved in the installation of glue down detectable warning surfaces shall be included in the contract price per square foot.~~

Measurement and Payment for **Curb Ramps** will be paid for at the contract price per each and shall include removal and reconstruction of curb and sidewalk to the limits shown in the curb ramp details on the Construction Plans, and installation of truncated domes. Said payment shall include sawcutting, removal and disposal of existing improvements, subgrade preparation (grading and compaction), aggregate base (if used), expansion joints, forming, pouring, pavement tie-in, and backfill, complete in place, as shown on the PLANS.

Measurement and Payment for **Curb & Gutter**, of the types shown on the estimate, will be paid for at the contract price per linear feet. Said payment shall include sawcutting, removal and disposal of existing improvements, subgrade preparation (grading and compaction), aggregate base (if used), expansion joints, forming, pouring, pavement tie-in, and backfill, complete in place, as shown on the PLANS

Measurement and Payment for **Sidewalks, excluding those sidewalk areas included in curb ramp reconstructions**, will be paid at the contract price per square foot. Said payment shall include sawcutting, removal and disposal of existing improvements, layout, subgrade preparation (grading and compaction), aggregate base (if used), expansion joints, forming, pouring, pavement tie-in, and backfill, complete in place, as shown on the PLANS.

Measurement and Payment for **Driveways/Approaches**, of the types shown on the estimate, will be paid at the contract price per square foot. Said payment shall include sawcutting, removal and disposal of existing improvements, subgrade preparation (grading and compaction), aggregate base (if used), expansion joints, forming, pouring, pavement tie-in, backfill and installation of truncated domes (for commercial driveways/approaches), complete in place, as shown on the PLANS.

The above prices and payments shall include full compensation for furnishing all labor, materials (including adhesive, or reinforcing steel and dowels for anchoring curbs to existing pavement), tools, equipment, and incidentals; and for doing all the work involved in constructing curbs, gutters, sidewalks, gutter depressions, island paving, curb ramps and driveways/drive approaches, complete in place, including subgrade preparation (grading and compaction), saw-cutting existing concrete and pavement, removal and disposal of existing concrete and pavement, application of curing agent per Section 90-1.03B(3), "Curing Compound Method," of the Standard specifications, and repair of the structural section of the street adjacent to the new work (pavement tie-in), as shown on the plans, and as specified in these specifications and the special provisions, and as directed by the Engineer.

10-1.23 MISCELLANEOUS DRAINAGE FACILITIES

This item shall consist of *miscellaneous drainage facilities including cross gutters (x-gutters), drain pipe, manholes, entrance structures, and catch basins* constructed in accordance with these Special Provisions at the specified locations in accordance with the dimensions, lines and grades as shown on the PLANS.

The Contractor shall provide test results and manufacturer's certificates of compliance for prequalification of all materials used in this subsection.

CONCRETE. Plain and reinforced concrete shall meet the requirements of [Section 90, "Concrete", of the Standard Specifications](#), except as modified herein. Concrete shall be [1-1/2-inch maximum aggregate size](#), containing not less than [564 pounds](#) of cement per cubic yard of concrete ([6-sack mix](#)). The compressive strength of the concrete shall be at least [4,000 psi at 28 days](#). The slump shall not be more than 4 inches.

REINFORCEMENT. Reinforcement shall conform to the provisions in [Section 52, "Reinforcement" of the Standard Specifications](#). All rebar shall be supported by using precast mortar blocks or ferrous metal chairs or others of sufficient strength to resist crushing under applied loads.

DRAIN PIPE. If type is not specified on the PLANS, drain pipe shall be Class IV reinforced concrete pipe conforming to [Section 65-2 "Reinforced Concrete Pipe", of the Standard Specifications](#), PVC Drain Pipe, or corrugated polyethylene with smooth interior wall and conforming to AASHTO M 294 requirements.

Reinforced concrete pipe and corrugated polyethylene pipe shall be rated for H-20 loading with 1-foot of cover.

CATCH BASINS, CROSS GUTTER, AND MISCELLANEOUS DRAINAGE STRUCTURES. Catch basins, cross gutters, and other miscellaneous drainage structures shall conform with the details shown on the PLANS. Catch basins may be cast-in-place or precast. Catch basins shall be equipped with base and extenders as needed and shall be supplied with galvanized frames and grates, rated for H-20 loading. Catch basin modifications shall include adjusting existing catch basins to grade, modification of existing catch basins to accept new pipe, or other modifications as shown on the PLANS. New H-20 rated galvanized frames and grates shall be provided when existing grate elevations are modified.

PREPARING SUBGRADE. Excavation shall be made to the required width and depth, and the subgrade upon which the item is to be built shall be compacted to a depth of [12 inches and to a density of not less than what is shown on the PLANS, of the maximum density as determined by ASTM method \(current edition\) D1557](#). The moisture content of material to be compacted must be such that the specified relative compaction is attained, and the surface is in a firm and stable condition. All soft and unsuitable material shall be removed and replaced with suitable approved material. When required, a layer of approved granular material, compacted to the thickness and density indicated in the PLANS, shall be placed to form a subbase. The underlying course shall be checked and accepted by the Engineer before placing as spreading operations are started.

PLACING CONCRETE. The forms and the mixing, placing, finishing, and curing of the concrete shall conform to the requirements of [Section 90, "Concrete", of the Standard Specifications](#) and shall be in accordance with the following requirements.

The concrete shall be tamped and spaded until it is consolidated, and mortar entirely covers and forms the top surface. The surface of the concrete shall be floated smooth and the edges rounded to the radii shown on the PLANS. Before the concrete is given the final finishing, the surface shall be tested with a 10-foot straightedge, and any irregularities of more than 1/4-inch in 10 feet shall be eliminated.

Cure concrete using pigmented curing compound [Type 2 Class A or B, per Section 90-1.03B\(3\), "Curing Compound Method," of the Standard specifications](#). Completely coat the exposed faces of the concrete with curing compound.

The concrete shall be placed with dummy-grooved joints not to exceed [15 feet apart](#), except where shorter lengths are necessary for closures, but no section shall be less than 4 feet long.

Expansion joints of the type called for in the PLANS shall be constructed to replace a dummy groove at spacings of approximately [30 feet or as shown on the PLANS](#). When the gutter is placed next to concrete pavement, expansion joints in the gutter shall be located opposite expansion joints in the pavement. When the gutter abuts a pavement or other structure, an expansion joint shall be placed between the gutter and the other structure.

Forms shall not be removed within 24 hours after the concrete has been placed. Minor defects shall be repaired with mortar containing 1-part cement and 2-parts fine aggregate.

The operations of depositing, compacting, and finishing the item shall be constructed so as to build a satisfactory structure. If any section of concrete is found to be porous, other than minor defects which may be plastered, or is otherwise defective, it shall be removed and replaced by the Contractor without additional compensation.

BACKFILLING. After the concrete has set sufficiently, the spaces adjacent to the structure shall be refilled to the required elevation with material specified on the PLANS and compacted by mechanical equipment to at least [95 percent](#) of the

maximum density as determined by ASTM D 1557. The in-place density shall be determined in accordance with ASTM D 1556 or ASTM D 2157. In paved areas, the pavement shall be replaced to a depth equal to the existing or as shown on the PLANS.

INSTALLING PIPE. Pipe shall be located as indicated on the PLANS. Installation shall be in conformance with [Section 65-2 "Reinforced Concrete Pipe", of the Standard Specifications](#), unless otherwise shown on the PLANS.

The quantity of catch basins and outlet/inlet structures to be paid for shall be each unit installed and accepted as shown on the PLANS. Storm drainpipe shall be measured per [linear foot](#). Pipe measurement shall be measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, whichever is applicable. No separate measurement will be made for flared end sections or catch basin aprons.

Payment shall be made at the Contract price per [each catch basin](#), per [linear foot](#) for each type of drainpipe, and by the [lump sum for each cross gutter](#). No separate payment shall be made for flared end sections or catch basin aprons. All costs for flared end sections shall be included in the price paid for storm drainpipe. [Catch basins](#), inlet, and outlet structures shall be paid for under the appropriate [lump sum bid](#) item.

The above prices and payments shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals; and for doing all the work involved including saw-cutting existing concrete and pavement, removal and disposal of existing concrete and pavement, subgrade preparation (grading and compaction), aggregate base (if used), expansion joints, reinforcement, forming, pouring, application of curing agent per [Section 90-1.03B\(3\), "Curing Compound Method," of the Standard specifications](#), and repair of the structural section of the street adjacent to the new work (pavement tie-in), as shown on the plans, and as specified in these specifications and the special provisions, and as directed by the Engineer.

10-1.24 REMOVE TRAFFIC STRIPES AND PAVEMENT MARKINGS

The Contractor's attention is directed to [Section 84-9, "Existing Markings," of the Standard Specifications](#), regarding removal of pavement markings. All removals shall be done in such a manner that the old message cannot be identified."

Remove traffic stripes and pavement markings by methods that do not materially damage the pavement. Remove pavement marking images so that the old message cannot be identified. Wherever removing by grinding, make the grinding area rectangular. The minimum dimensions of the rectangle is the height and width of the pavement marking.

Sweep up or vacuum any residue before it can (1) be blown by traffic or wind, (2) migrate across lanes or shoulders, or (3) enter a drainage facility. If blast cleaning is used for removal and the work is performed within 10 feet of a traffic lane that is open to the public, remove the residue with a vacuum attachment that operates concurrently with the blast cleaning. The residue and dust must be removed immediately after contact between the sand and the surface

Any existing pavement striping and markings indicated on the plans to remain unmodified, which are destroyed by the Contractor shall be replaced by the Contractor. Payment for such items shall be included in the various items of work and no separate payment will be made therefor.

Nothing in these Special Provisions shall relieve the Contractor from his responsibilities as provide in [Section 7-1.04, "Public Safety", of the Standard Specifications](#).

Full compensation for removing existing traffic stripes and pavement markings shall be considered as included in the payment for the type of [traffic stripes, or pavement markings](#) involved and no additional compensation will be allowed therefor.

10-1.25 THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS

[Contractor to USE THERMOPLASTIC ON ALL STRIPING AND MARKINGS as shown on the plans.](#)

Thermoplastic traffic stripes (traffic lines) and pavement markings shall be applied in conformance with the provisions in [Section 84-2, "Traffic Stripes and Pavement Markings," of the Standard Specifications](#) and these special provisions.

For each lot or batch of thermoplastic, paint, and glass beads, submit:

1. Certificate of compliance, including the product name, lot or batch number, and manufacture date
2. METS notification letter stating that the material is authorized for use, except for thermoplastic
3. SDS
4. Material data sheet for thermoplastic primer

Thermoplastic material shall be free of lead and chromium, and must comply with State Specification PTH-02SPRAY, PTH-02HYDRO, or PTH-02ALKYD.

For recessed thermoplastic stripes and pavement markings, mark packages of thermoplastic with the words For Recessed Application.

Traffic stripes and pavement markings must be retroreflective. Within 30 days of applying traffic stripes and pavement markings, the retroreflectivity of the stripes and markings must be a minimum of $250 \text{ mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$ for white and $125 \text{ mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$ for yellow when measured under ASTM E1710.

Do not thin the primer. Apply the primer under the manufacturer's instructions:

1. To all roadway surfaces except for asphaltic surfaces less than 6 months old
2. At a minimum rate of 1 gallon per 300 square feet
3. To allow time for the thermoplastic primer to dry and become tacky prior to application of the thermoplastic

Use preheaters with mixers having a 360-degree rotation to preheat the thermoplastic material.

Apply the thermoplastic in a single uniform layer by spray or extrusion methods.

Completely coat and fill voids in the pavement surface with the thermoplastic.

A completed thermoplastic traffic stripe or thermoplastic pavement marking must be free from runs, bubbles, craters, drag marks, stretch marks, and debris.

Protect newly placed traffic stripes and pavement markings from traffic and other deleterious activities until the paint is thoroughly dry or the thermoplastic is hard enough to bear traffic.

Where striping joins existing striping, as shown on the plans, the Contractor shall begin and end the transition from the existing striping pattern into or from the new striping pattern a sufficient distance to ensure continuity of the striping pattern.

Any existing pavement striping and markings indicated on the plans to remain unmodified, which are destroyed by the Contractor shall be replaced by the Contractor. Payment for such items shall be included in the various items of work and no separate payment will be made therefor.

Nothing in these Special Provisions shall relieve the Contractor from his responsibilities as provided in [Section 7-1.04, "Public Safety", of the Standard Specifications](#).

Payment for this item of work shall be made by the Contract [price per Linear Foot for EACH type of STRIPE, and by the contract price for EACH type of MARKING](#). Said payment shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in painting traffic stripes (regardless of the number, widths and patterns of individual stripes involved in each traffic stripe) and pavement markings including establishing alignment for stripes and layout work, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer; and no additional allowance will be allowed.

10-1.26 PAVEMENT MARKERS

Pavement markers shall be placed in conformance with the provisions in [Section 81-3, "Pavement Markers," of the Standard Specifications](#) and these special provisions.

Submit a certificate of compliance for each type of pavement marker used.

Retroreflective pavement markers shall be marked as abrasion resistant on the body of the markers.

Contractor shall furnish and install [blue reflective fire hydrant markers](#) to be installed per Fire Department requirements to indicate the presence of a fire hydrant. When the contract does not include a contract pay item for [blue reflective fire hydrant markers](#), full compensation for furnishing and installing [blue reflective fire hydrant markers](#) shall be considered as included in the prices paid for the various contract items of work and no separate payment will be made therefor.

Payment for this item of work shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing and placing pavement markers, complete in place, including adhesives, and establishing alignment for pavement markers, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the engineer; and no additional allowance will be allowed.

10-1.27 ADJUST MANHOLE FRAME AND COVER TO GRADE

This work shall consist of the adjustment of existing sanitary sewer and drainage manholes as necessary to conform to the adjusted elevations and grades as shown on the plans or as directed by the Engineer.

Frames and covers of existing manholes shall be adjusted to final finished grade in accordance with the provisions in [Section 71-5.013B "Frames, Covers, Grates, and Manholes," of the Standard Specifications](#), these special provisions, and the City Standards.

Existing manhole frames and covers, if salvaged undamaged, may be reused. If damaged, a new frame and cover shall be furnished. Full compensation for furnishing new cast iron frame and cover for sewer and drainage manholes shall be considered as included in the Contract price paid for [Adjust Manhole to Grade](#) and no additional allowance will be allowed.

RAISING EXISTING BRICK MANHOLES

Brick manholes to be raised less than 1 foot may be extended vertically, provided that at a depth of 2-1/2 feet below the top of the manhole at its new elevation, the inside diameter of the manhole is 30 inches or greater.

Brick manholes to be raised less than 3-1/2 inches may be raised by applying Class "D" mortar to the top of the existing brickwork. If the brick manhole is to be raised 3-1/2 inches or more, a new course or courses of brickwork shall be placed on top of the existing brickwork.

LOWERING EXISTING BRICK MANHOLES

Where a brick manhole is to be lowered less than 1 foot the frame may be reset on the existing brickwork and the 40 in. minimum brickwork reconstruction omitted, provided that the base of the frame does not overhang the brickwork on the inside surface of the manhole more than an average of 1-1/2 in. in any quadrant nor more than 2 in. at any point.

RAISING EXISTING PRECAST CONCRETE MANHOLES

- **Manholes to be raised less than 3 inches:** Precast concrete manholes to be raised less than 3 inches may be raised by applying Class "D" mortar to the top of the existing manhole, provided the total height of mortar, existing and newly applied, does not exceed 3 inches.
- **Manholes to be raised 3 inches to 18 inches:** Where the precast concrete manhole is to be raised 3 inches but not more than 18 inches, or where the total height of the mortar existing and newly applied, would exceed 3 inches, grade rings shall be utilized. Class "D" mortar may be used for final adjustment, but not more than 3 inches in height.
- **Manholes to be raised more than 18 inches:** Where raising the manhole would result in the upper segment of the collar (shaft) being more than 18 inches in height, then the existing collar and conical section of the manhole shall be removed, the riser section raised the required amount, the conical section and collar rebuilt and the rim reset at the proper grade. A manhole step shall be installed where required to provide a step 20 inches below the top of rim. Such additional steps shall be installed between the highest step and the existing manhole steps, spaced vertically at 12 inches, staggered horizontally at 12 inches and in alignment with existing steps. All new precast manhole components shall conform to current specifications, ASTM C-478; and result in an installation that is equal to or better than the existing one in stability, support, and nonrocking characteristics.

LOWERING EXISTING PRECAST CONCRETE MANHOLES

Remove sufficient grade rings to lower the manholes as required. Apply Class "D" mortar to a height not exceeding 3-inches for adjustment to final grade.

Where removal of grade rings would result in the upper segment of the collar (shaft) being less than 12-inches in height, remove the reducer and sufficient sections of the lower segment of the shaft and reinstall any necessary segment of the lower shaft, the reducer, and the grade rings to conform to the requirements of this plan.

Existing grade rings need not be removed if existing mortar is removed, and at least 1-1/2 inches of mortar may be replaced on top of the existing grade rings to reseal the frame.

Existing grade rings need not be removed if existing mortar is removed, and at least 1-1/2 inches of mortar may be replaced on top of the existing grade rings to reseal the frame.

Adjusting existing sewer and drainage manholes frame and cover will be paid for at the Contract unit price each for [ADJUST SEWER MANHOLE TO GRADE](#) which price shall include full compensation for furnishing all labor, materials, tools, equipment and for doing all the work involved in adjusting the manhole, complete with concrete pad, including excavation and saw-cutting pavement at the periphery of the square concrete pad and curing new concrete pad using Nonpigmented curing compound Type 1 Class A or B, per Section 90-1.03B(3), "Curing Compound Method," of the Standard specifications.

10-1.28 ADJUST SURVEY MONUMENT OR WATER VALVE/METER BOX

Survey monument, water valves, water meters, shall be adjusted to final finished grade in accordance with the provisions in [Section 71-5.013B "Frames, Covers, Grates, and Manholes," of the Standard Specifications](#), these special provisions, and the City Standards.

Existing frames and covers, if salvaged undamaged, may be reused. If damaged, a new frame and cover shall be furnished.

Existing survey monuments to remain undisturbed, if disturbed, contractor to be responsible for the resetting of monuments by qualified individual.

Full compensation for furnishing new cast iron frame and cover for survey monuments, and resetting of survey monuments if needed shall be considered as included in the Contract price paid for adjusting manhole and no additional allowance will be allowed therefor.

Adjusting existing survey monument will be paid for at the Contract price for [ADJUST UTIL BOX/ MONUMENT TO GRADE](#), and adjusting existing water valve will be paid for at the Contract price for [ADJUST UTIL BOX/ MONUMENT TO GRADE](#), which prices shall include full compensation for furnishing all labor, materials, tools, equipment and for doing all the work involved in adjusting the survey monument, complete with concrete pad, including excavation and saw-cutting pavement at the periphery of the square concrete pad and curing new concrete pad using Nonpigmented curing compound [Type 1 Class A or B](#), per [Section 90-1.03B\(3\), "Curing Compound Method,"](#) of the Standard specifications.

Due to the possibility of non-existent survey monuments/water valves, or monuments/water valves encasements which may be below the existing pavement and therefore not visible, all probable survey monument locations have been shown on the plans and accounted for in the Engineers Estimate and the Bidding Schedule of this contract. Contractor shall be paid the contract unit cost for each survey monument adjustment, actually adjusted and no adjustment of said contract unit cost will be allowed due to increase or decrease in the quantity of survey monuments adjusted.

10-1.29 DUST CONTROL

Dust control shall conform to the provisions of [Section 18, "Dust Palliatives,"](#) of the Standard Specifications. Full compensation for dust control shall be considered as included in the prices paid for the various Contract items of work and no separate payment will be made therefor.

10-1.30 CONTRACT ITEMS OF WORK

Contract items of work are described herein, including the method of measurement and payment.

This section specifies the method of measurement and payment for this Contract. Any method of measurement and payment described in the Standard specifications in conflict herewith is declared null and void.

It is intended herein that compensation for the entire work is to be accomplished through the combination of the various Contract pay items of work and compensation outside of these Contract items will not be allowed except for extra work ordered in writing by the City. In preparing this bid, the Contractor is enjoined to be diligent in making sure that all of his costs are covered by the Contract items of work.

Attention is directed to the bidding schedule. The Contractor is to indicate unit price bid and total price bid for the estimated quantities as shown.

10-1.31 ROADWAY FINISHING

Surplus material, tools and temporary structures shall be removed by the Contractor and all excess dirt, rubbish and excess earth from excavations shall be removed and disposed of by the Contractor at the end of each day. Work site to be left in a safe condition at all times. Payment for roadway finishing to include shoulder backing shall be considered as included in the various items of work and no additional allowance will be allowed therefor. Finishing roadway shall conform to the provisions in [Section 22, "Finishing Roadway,"](#) of the Standard Specifications and these special provisions.

In addition to the conditions, provisions and requirements of [Section 22-1.01, "General,"](#) of the Standard Specifications, the following shall apply:

The Contractor shall remove, from all affected areas, whether inside or outside the project limits, all excess and/or objectionable material originating within the project limits and transported by public traffic or by the Contractor's operations.

The Contractor may use any method, approved by the Engineer that does not create a dust problem to remove the excess and/or objectionable material from the affected areas. However, in residential areas, when a broom is used, a self-contained, pick-up type, power broom with water distribution system shall be used. The Contractor shall water test paved areas for ponding and flow prior to acceptance. Areas requiring mediation will be done at the contractor expense, and approved by the Engineer.

10-1.32 SITE CLEANUP

The Contractor shall promptly remove from the vicinity of the completed Work, all rubbish, debris, unused materials, concrete forms, construction equipment, and temporary structures and facilities used during construction. All parts of the work shall be left in a neat and presentable condition. Final acceptance of the Work by the City will be withheld until the Contractor has satisfactorily complied with the foregoing requirements for final cleanup of the project site. Nothing herein, however, shall require the Contractor to remove warning, regulatory, and guide signs prior to formal acceptance by the City.

Site cleanup shall include, but not be limited to the following:

1. Satisfactory completion of Finishing Roadway in accordance with [Section 22, "Finishing Roadway"](#) of the Standard Specifications.
2. Removal of all surplus material, construction debris, and similar from project limits and adjacent property, as required and as directed by the Engineer.
3. Restoration of all temporary roads and haul routes and construction storage and office areas to original or better condition.

Measurement and Payment for site cleanup shall be made through the [combination of the various Contract pay items](#), after satisfactory completion of the above listed items, and no additional payment will be made therefore.

10-1.33 PAYMENT

The method of payment for each item of work is described in [Section 9 of the Standard Specifications](#).

Progress payments shall be payment for amount of work completed to the [20th of each month, less 5% retention](#). All work in not fully completed, but in progress, shall be discussed with the contractor and assessed by the Engineer, and shall be paid for on a percentage of completion basis. Progress payments shall be made to the Contractor upon approval of the City.

SECTION 11. WORK ZONE SAFETY AND MOBILITY

A. POLICY: It is the policy of the [City of McFARLAND](#) to adhere to the provisions of the MUTCD in order to provide a smooth and efficient flow of traffic, while retaining safety through the roadway work zone.

B. TRAFFIC CONTROL PLAN: To be prepared by the Contractor or his agent and submitted to the [City of McFARLAND](#) for review by the [Project Engineer](#).

The contractor shall follow all the federal guidelines in implementing the rule on Work Zone Safety and Mobility (23 CFR 630 Subpart J), for more information contractor is directed to the following website:

http://www.ops.fhwa.dot.gov/wz/docs/wz_final_rule.pdf

BIDDING DOCUMENTS

For use in connection with Locally funded Local Assistance construction projects administered under the 2018 State Of California Department Of Transportation Standard Plans And Standard Specifications. The 2018 State Of California Department Of Transportation Revised Standard Plans And Revised Standard Specifications. The 2014 California Manual On Uniform Traffic Control Devices (CA MUTCD), and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished. Hot Mix Asphalt shall conform to the provisions in Section 39, "Hot Mix Asphalt," of the 2010 Standard Specifications and these special provisions.

Bid Opening Date: February 03, 2022

City of McFarland
DAVIS AVE. RECONSTRUCTION

(Ink **must** be used to complete this proposal.)

BID
TO THE CITY OF McFARLAND
DEPARTMENT OF PUBLIC WORKS

NAME OF BIDDER _____

BUSINESS P.O. BOX _____

CITY, STATE, ZIP _____

BUSINESS STREET ADDRESS _____
(Please include even if P.O. Box used)

CITY, STATE, ZIP _____

TELEPHONE NO: AREA CODE () _____

FAX NO: AREA CODE () _____

CONTRACTOR LICENSE NO. _____ State Registration (DIR) # _____

The work for which this proposal is submitted is for construction in conformance with the special provisions (including the payment of not less than the State general prevailing wage rates or Federal minimum wage rates), the project PLANS described below, including any addenda thereto, the contract annexed hereto, and also in conformance with [the 2018 State Of California Department Of Transportation Standard Plans And Standard Specifications](#). The 2018 State Of California Department Of Transportation Revised Standard Plans And Revised Standard Specifications. The 2014 California Manual On Uniform Traffic Control Devices (CA MUTCD), and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished. Hot Mix Asphalt shall conform to the provisions in Section 39, "Hot Mix Asphalt," of the 2010 Standard Specifications and these special provisions.

The special provisions for the work to be done are dated [December 03, 2021](#) and are entitled:

CITY OF McFARLAND
DEPARTMENT OF PUBLIC WORKS
NOTICE TO BIDDERS AND SPECIAL PROVISIONS FOR

DAVIS AVE. RECONSTRUCTION

The project plans for the work to be done were dated [December 03, 2021](#) and are entitled:

CITY OF McFARLAND
DEPARTMENT OF PUBLIC WORKS
PROJECT PLANS FOR

DAVIS AVE. RECONSTRUCTION

INCLUDE WITH BID

Bids are to be submitted for the entire work. The amount of the bid for comparison purposes will be the total of all items.

The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b), as follows:

- (a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;
- (b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage-wise the unit price or item total in the [CITY OF McFARLAND's](#) Final Estimate of cost.

If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.

Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cents symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the item total shall prevail.

The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity, which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the [CITY OF McFARLAND](#), and that discretion will be exercised in the manner deemed by the [CITY OF McFARLAND](#) to best protect the public interest in the prompt and economical completion of the work. The decision of the [CITY OF McFARLAND](#) respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

If this proposal shall be accepted and the undersigned shall fail to enter into the contract and furnish the 2 bonds in the sums required by the State Contract Act, with surety satisfactory to the [CITY OF McFARLAND](#), within 8 days, not including Saturdays, Sundays and legal holidays, after the bidder has received notice from the [CITY OF McFARLAND](#) that the contract has been awarded, the [CITY OF McFARLAND](#) may, at its option, determine that the bidder has abandoned the contract, and thereupon this proposal and the acceptance thereof shall be null and void and the forfeiture of the security accompanying this proposal shall operate and the same shall be the property of [CITY OF McFARLAND](#).

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the PLANS therein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with the [CITY OF McFARLAND](#), in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefor the following prices, to wit:

INCLUDE WITH BID

BID SCHEDULE**DAVIS AVE. RECONSTRUCTION**

BASE BID					
ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT COST	TOTAL COST
1	SITE DEMOLITION, GRADING, BALANCE ROADWAY/SITE TO NEW GRADE	L.S.	1		
2	COLD PLANE 3" EXISTING AC SURFACE AND HAUL OFF SITE	S.F.	135,699		
3	HAUL OFF SITE EXCESS BASE MATERIAL	C.Y.	214		
4	CEMENT TREATED SUBGRADE - PULVERIZE 12" EXIST. MATERIAL & MIX WITH 3% CEMENT, WATER, AND COMPACT TO 95%	S.F.	134,660		
5	CLASS 2 AGG. BASE COMPACTED TO 95%	TON	132		
6	TYPE "A" HOT MIX ASPHALT	TON	3,600		
7	APPLY FOG SEAL ON NEW PAVEMENT	L.S.	1		
8	INSTALL CASE A CURB RAMP (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	EA.	5		
9	INSTALL CASE B CURB RAMP (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	EA.	6		
10	INSTALL CURB & GUTTER - MATCH EXISTING (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	L.F.	2,450		
11	INSTALL 4" THICK SIDEWALK (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	S.F.	1,023		
12	INSTALL 8" THICK CONCRETE CROSS GUTTER/APRON/ALLEY APPROACH (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 95%)	S.F.	2,901		
13	INSTALL 6" THICK CONCRETE RESIDENTIAL DRIVE APPROACH (INCLUDES SAWCUT, DEMOLITION OF EXISTING IMPROVEMENTS, SCARIFY 12" NATIVE MATERIAL, GRADE, & COMPACT TO 90%)	S.F.	3,133		
14	ADJUST SEWER MANHOLE TO GRADE	EA.	5		
15	ADJUST UTIL BOX/ MONUMENT TO GRADE	EA.	6		
16	INSTALL 12" SOLID YELLOW STRIPE (CROSS WALK & ISLAND) - THERMOPLASTIC	L.F.	155		
17	INSTALL 12" LIMIT LINE - THERMOPLASTIC	L.F.	150		
<u>INCLUDE WITH BID</u>					

**BID SCHEDULE - CONTINUATION
DAVIS AVE. RECONSTRUCTION**

PAGE 2 OF 2

ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT COST	TOTAL COST
18	INSTALL 6" YELLOW CENTERLINE - THERMOPLASTIC - DETAIL 22	L.F.	450		
19	INSTALL 6" YELLOW CENTERLINE - THERMOPLASTIC - DETAIL 2	L.F.	2,300		
20	INSTALL WHITE THERMOPLASTIC PAVEMENT MARKINGS	S.F.	132		
21	FURNISH AND INSTALL SOLAR-POWERED FLASHING LED STOP SIGN - R1-1 (36"x36")	EA.	3		
23	FURNISH AND INSTALL - PROJECT FUNDING SIGN FOR SB1 - C48 (CA) (48"x30")	EA.	2		
24	QUALITY CONTROL PROGRAM	L.S.	1		
25	PREPARE AND IMPLEMENT SWPPP	L.S.	1		
26	TEMPORARY TRAFFIC CONTROL	L.S.	1		

BASE TOTAL BID: _____

BID OPTION 1

ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT COST	TOTAL COST
27	INSTALL 6" WHITE BIKE LANE LINE - THERMOPLASTIC - DETAIL 39 & 39A	L.F.	9,228		
28	INSTALL BIKE LANE MARKINGS - THERMOPLASTIC	S.F.	168		
29	FURNISH AND INSTALL "BIKE LANE" SIGN - R81(CA). 12"x8"	EA.	16		
30	FURNISH AND INSTALL "BEGIN" SIGN - R81A(CA). 12"x5"	EA.	2		
31	FURNISH AND INSTALL "END" SIGN - R81B(CA). 8"x5"	EA.	2		
BID OPTION 1 TOTAL:					

Acknowledgment of Addenda
Addendum No. Initial

Signature

Printed Name / Title

Company

Contractor's License Number / Expiration Date

Selection of Bidder

Selection of bidder shall be based on the lowest responsible BASE BID. The City has the option to reject all bids with or without cause. It is understood that the foregoing quantities are approximate only and are solely for the purpose of facilitating the comparison of bids, and that the contractor's compensation will be computed upon the basis of the actual quantities in the complete work, whether they be more or less than those shown. Bid shall include all taxes, permits, bonds, licenses, fees, shipping, installation and mobilization costs.

INCLUDE WITH BID

Exhibit 12-B Bidder's List of Subcontractors (DBE and Non-DBE)

As of March 1, 2015 Contractors (and sub-contractors) wishing to bid on public works contracts shall be registered with the State Division of Industrial Relations and certified to bid on Public Works contracts. Please register at: <https://efiling.dir.ca.gov/PWCR/ActionServlet?action=displayPWCRegistrationForm>

In accordance with Title 49, Section 26.11 of the Code of Federal Regulations, and Section 4104 of the Public Contract Code of the State of California, as amended, the following information is required for each sub-contractor who will perform work amounting to more than one half of one percent (0.5%) of the Total Base Bid or \$10,000 (whichever is greater). **Photocopy this form for additional firms.**

State/Federal Project Number:

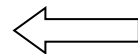
Subcontractor Name and Location	Line Item & Description	Subcontract Amount	Percentage of Bid Item Sub-contracted	Contractor License Number DIR Reg Number	DBE (Y/N)	DBE Cert Number	Annual Gross Receipts
Name:							☐ < \$1 million
City, State:							☐ < \$5 million
							☐ < \$10 million
							☐ < \$15 million
							Age of Firm: ____ yrs
Name:						☐ < \$1 million	
City, State:						☐ < \$5 million	
						☐ < \$10 million	
						☐ < \$15 million	
						Age of Firm: ____ yrs	
Name:						☐ < \$1 million	
City, State:						☐ < \$5 million	
						☐ < \$10 million	
						☐ < \$15 million	
						Age of Firm: ____ yrs	
Name:						☐ < \$1 million	
City, State:						☐ < \$5 million	
						☐ < \$10 million	
						☐ < \$15 million	
						Age of Firm: ____ yrs	
Name:						☐ < \$1 million	
City, State:						☐ < \$5 million	
						☐ < \$10 million	
						☐ < \$15 million	
						Age of Firm: ____ yrs	

INCLUDE WITH BID

*(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL
SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE
CERTIFICATIONS WHICH ARE A PART OF THIS BID/PROPOSAL)*

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

	<u>Has</u>	<u>Has Not</u>
The bidder _____	_____	_____
Proposed Subcontractor(s) _____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____



COMPLETE
HERE

hereby certifies the above information regarding participation in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filling requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

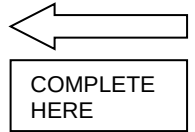
Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

INCLUDE WITH BID

PUBLIC CONTRACT CODE

Public Contract Code Section 10285.1 Statement

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the **bidder has _____, has not _____ been convicted** within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.



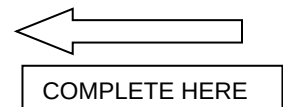
Note: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes _____ No _____



If the answer is yes, explain the circumstances in the following space.

INCLUDE WITH BID

Public Contract Code 10232 Statement

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement and Questionnaire. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

INCLUDE WITH BID

NON-COLLUSION AFFIDAVIT

(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the **CITY OF MCFARLAND**
DEPARTMENT OF PUBLIC WORKS

In conformance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

INCLUDE WITH BID

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

INCLUDE WITH BID

Accompanying this BID is _____

(NOTICE: INSERT THE WORDS "CASH(\$ _____)," "CASHIER'S CHECK,"
"CERTIFIED CHECK," OR "BIDDER'S BOND," AS THE CASE MAY BE.)

in amount equal to at least ten percent of the total of the bid.

The names of all persons interested in the foregoing proposal as principals are as follows:

IMPORTANT NOTICE

If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a copartnership, state true name of firm, also names of all individual copartners composing firm; if bidder or other interested person is an individual, state first and last names in full.

Licensed in conformance with an act providing for the registration of Contractors,

License No. _____ Classification(s) _____

ADDENDA - This Bid is submitted with respect to the changes to the contract included in addenda number/s

(Fill in addenda numbers if addenda have been received and insert, in this Proposal, any Engineer's Estimate sheets that were received as part of the addenda.)

By my signature on this bid I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code). By my signature on this Bid I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Noncollusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Date: _____



SIGNATURE AND TITLE OF BIDDER

Business Address _____

Place of Business _____

Place of Residence _____

INCLUDE WITH BID

CITY OF MCFARLAND
DEPARTMENT OF PUBLIC WORKS

BIDDER'S BOND

We, _____
_____ as Principal, and

_____ as Surety are bound unto the **CITY OF MCFARLAND**, State of California, hereafter referred to as "Obligee", in the penal sum of ten percent (10%) of the total amount of the bid of the Principal submitted to the Obligee for the work described below, for the payment of which sum we bind ourselves, jointly and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal is submitted to the Obligee, for _____

(Copy here the exact description of work, including location as it appears on the proposal)

for which bids are to be opened at _____ on _____
(Insert place where bids will be opened) (Insert date of bid opening)

NOW, THEREFORE, if the Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in conformance with the bid, and files two bonds with the Obligee, one to guarantee faithful performance of the contract and the other to guarantee payment for labor and materials as provided by law, then this obligation shall be null and void; otherwise, it shall remain in full force.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

Dated: _____, 20__ .

Principal

Surety
By _____
Attorney-in-fact

CERTIFICATE OF ACKNOWLEDGEMENT

State of California
City/County of _____ SS

On this _____ day of _____ in the year 20__ before me
_____, personally appeared _____,

Attorney-in-fact

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument as the attorney-in-fact of _____, and acknowledged to me that he (she) subscribed the name of the said company thereto as surety, and his (her) own name as attorney-in-fact.

(SEAL)

Notary Public

INCLUDE WITH BID

REFERENCES

The following are the names, addresses and telephone numbers for three public agencies for which BIDDER has performed similar work within the past 2 years:

1.

Name and Address of Owner		
Name and telephone number of person familiar with project		
Contract amount	Type of work	Date completed

2.

Name and Address of Owner		
Name and telephone number of person familiar with project		
Contract amount	Type of work	Date completed

3.

Name and Address of Owner		
Name and telephone number of person familiar with project		
Contract amount	Type of work	Date completed

The following are the names, addresses, and telephone numbers of all brokers and sureties from whom BIDDER intends to procure insurance and bonds:

[INCLUDE WITH BID](#)

CONTRACT DOCUMENTS

(TO BE EXECUTED BY SUCCESSFUL BIDDER)

SAMPLE AGREEMENT CITY OF McFARLAND

THIS Agreement, made and entered into this ____ day of _____, 20____, by and between the [City of McFarland](#), hereinafter called "City", and _____ hereinafter called "Contractor".

WITNESSETH: That the parties hereto do mutually agree as follows:

ARTICLE I. That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the said party of the first part, and under the conditions expressed in the 2 bonds, bearing even date with these presents, and hereunto annexed, the said party of the second part agrees with the said party of the first part, at his own proper cost and expense, to do all the work and furnish all the materials, except such as are mentioned in the specifications to be furnished by said party of the first part, necessary to construct and complete in a good, workmanlike and substantial manner and to the satisfaction of the [CITY OF McFARLAND](#), the work described in the special provisions and the project plans described below, including any addenda thereto, and also in conformance with [the 2018 State Of California Department Of Transportation Standard Plans And Standard Specifications](#). [The 2018 State Of California Department Of Transportation Revised Standard Plans And Revised Standard Specifications](#). The current edition of the California Manual On Uniform Traffic Control Devices (CA MUTCD), and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished. Hot Mix Asphalt shall conform to the provisions in Section 39, "Hot Mix Asphalt," of the 2010 Standard Specifications and these special provisions.

The Special Provisions and Project Plans for the work to be done are entitled:

**CITY OF McFARLAND
DEPARTMENT OF PUBLIC WORKS

DAVIS AVE. RECONSTRUCTION**

Contractor shall, in accordance with the SPECIFICATIONS and drawings therefore, furnish at its own expense all labor, materials, equipment and services as required therefore, and to do everything required in this Agreement and the SPECIFICATIONS.

ARTICLE II. The City hereby employs said Contractor to perform the work according to the terms of this Agreement and the SPECIFICATIONS for price(s) named in Contractor's BID (hereinafter "Proposal"), and agrees to pay the same at the time, in the manner, and upon the conditions set forth in the SPECIFICATIONS; and the parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to the full performance of the covenants herein contained.

ARTICLE III. The minimum wage rates as predetermined by the [Director of the California Department of Industrial Relations](#) are hereby made a part of this contract. It is expressly agreed by and between the parties hereto that should there be any conflict between the terms of this Agreement and the Proposal of said Contractor, then this Agreement shall control and nothing herein shall be considered as an acceptance of the terms of said proposal conflicting herewith.

ARTICLE IV. The Contractor agrees to receive and accept the prices as bid in the Bidding Schedule as full and complete compensation for furnishing all materials and for doing all the work contemplated and embraced in this Agreement; also for all loss or damage, arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the [CITY OF McFARLAND](#), and for all risks of every description connected with the work; also for all expenses incurred by or in consequence of the suspension or discontinuance of work and for well and faithfully completing the work, and the whole thereof, in the manner and according to the plans and specifications, and the requirements of the Engineer under them, to wit.

ARTICLE V. BLANK

ARTICLE VI. Prior to starting construction under the terms of this Agreement, Contractor shall provide to the City a Faithful Performance Bond and the Labor Materials Bond, as required in the SPECIFICATIONS.

ARTICLE VII. Contractor and any subcontractors shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of this Agreement or the work to be provided for hereunder. All parties shall make such materials available at their respective offices as required in the SPECIFICATIONS.

ARTICLE VIII. If any action at law or in equity, including an action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorneys' fees, which may be set by the court in the same action or in a separate action brought for that purpose, in addition to any other relief to which that party may be entitled.

ARTICLE IX. In addition to any other Indemnification requirements in the SPECIFICATIONS, the Contractor agrees to indemnify, defend and save harmless the City, its officers, agents, employees and consultants from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, material men, laborers and any other person, firm or corporation furnishing or supplying work services, materials or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by the Contractor in the performance of this Agreement, except such loss which was caused by the sole negligence or willful misconduct of the City.

ARTICLE X. In addition to any other insurance provisions required in the SPECIFICATIONS, Contractor shall provide insurance to the City as set forth in Exhibits [1, 1-A, 2, 3, 4, 6, 11].

ARTICLE XI. The Contractor, and the agents and employees of Contractor, in the performance of the Agreement, shall act in an independent capacity and not as officers or employees or agents of the City.

ARTICLE XII. The City may terminate this Agreement and be relieved of the payment of any consideration to Contractor should Contractor fail to perform the covenants herein contained or contained in the SPECIFICATIONS at the time and in the manner as required. In the event of such termination, the City may proceed with the work in any manner deemed proper by the City. The cost to the City shall be deducted from any sum due the Contractor under this Agreement, and the balance, if any, shall be paid to the Contractor upon demand.

ARTICLE XIII. Without the written consent of the City, this Agreement is not assignable by Contractor either in whole or in part.

ARTICLE XIV. Time is of the essence in this Agreement.

ARTICLE XV. No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by the parties hereto; and no oral understanding or Agreement not incorporated herein shall be binding on any of the parties hereto.

ARTICLE XVI. By my signature hereunder, as Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Agreement.

ARTICLE XVII. And the said Contractor agrees to receive and accept the following prices as full compensation for furnishing all materials and for doing all the work contemplated and embraced in this agreement; also for all loss or damage, arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the CITY OF McFARLAND, and for all risks of every description connected with the work; also for

all expenses incurred by or in consequence of the suspension or discontinuance of work and for well and faithfully completing the work, and the whole thereof, in the manner and according to the plans and specifications, and the requirements of the Engineer, said City will pay and said Contractor shall receive the total sum of _____ in full compensation; per price(s) named in Contractor's bid.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed the day and year first above written.

ATTEST:

CITY OF McFARLAND, CALIFORNIA

BY _____
Francisca Alvarado
City Clerk, City of McFarland

Sally Gonzalez
Mayor, City of McFarland

APPROVED AS TO FORM:

“CONTRACTOR”

BY _____

City Attorney

(Title)

Licensed in accordance with an act providing for the registration of contractors,

License No. _____

Federal Employer Identification

Number _____

401 West Kern Ave.
McFarland, CA 93250

WORKERS' COMPENSATION CERTIFICATE

I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be self-insured against liability for workers compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of this contract.

Signature

Date: _____

Printed Name / Title

Company

Contractor's License Number / Expiration Date

NOTE: If Contractor is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If the Contractor is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnerships. If the Contractor is an individual, the name of the firm shall be set forth together with the signature.

CITY OF McFARLAND
DEPARTMENT OF PUBLIC WORKS

PAYMENT BOND

(Section 3247, Civil Code)

WHEREAS, The **CITY OF McFARLAND**, acting by and through the Department of Public Works, hereafter referred to as "Obligee", has awarded to Contractor _____, hereafter designated as the "Principal", a contract for the work described as follows:

AND WHEREAS, said Principal is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen and other persons as provided by law.

NOW, THEREFORE, we the undersigned Principal and Surety are bound unto the Obligee in the sum of _____ dollars (\$ _____), lawful money of the United States of America, one hundred percent (100%) of the Agreement amount for which payment, we bind ourselves, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if said Principal or its subcontractors shall fail to pay any of the persons named in Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by such claimant, or any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board for the wages of employees of the Principal and his subcontractors pursuant to Section 18806 of the Revenue and Taxation Code, with respect to such work and labor, that the surety herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 3181 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Dated: _____, 20 ____

Correspondence or claims relating to this bond should be sent to the surety at the following address:

Contractor

Name of Surety (SEAL)

By: Attorney-in-Fact

NOTE: Signatures of those executing for the surety must be properly acknowledged.

CERTIFICATE OF ACKNOWLEDGEMENT

State of California
City/County of _____ SS

On this _____ day of _____ in the year 20____ before me

_____, personally appeared _____,

Attorney-in-fact

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument as the attorney-in-fact of _____, and acknowledged to me that he (she) subscribed the name of the said company thereto as surety, and his (her) own name as attorney-in-fact.

(SEAL)

Notary Public

CITY OF McFARLAND
DEPARTMENT OF PUBLIC WORKS

PERFORMANCE BOND

(To Accompany Contract)

Bond No. _____

WHEREAS, the CITY OF McFarland, acting by and through the Department of Public Works, has awarded to Contractor _____, hereafter designated as the "Contractor", a contract for the work described as follows:

AND WHEREAS, the Contractor is required to furnish a bond in connection with said contract, guaranteeing the faithful performance thereof:

NOW, THEREFORE, we the undersigned Contractor and Surety are held firmly bound to the CITY OF McFARLAND in the sum of \$ _____ dollars (\$ _____), lawful money of the United States of America, one hundred percent (100%) of the Agreement amount, to be paid to said City or its certain attorney, its successors and assigns: for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors or assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if the above bound Contractor, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the foregoing contract and any alteration thereof made as therein provided, on his or their part to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning, and shall indemnify and save harmless the CITY OF McFARLAND, its officers and agents, as therein stipulated, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this ____ day of _____, 20__.

Correspondence or claims relating to this bond
should be sent to the surety at the following
address:

Contractor

Name of Surety (SEAL)

By: Attorney-in-Fact

NOTE: Signatures of those executing for the surety must be properly acknowledged.

CERTIFICATE OF ACKNOWLEDGEMENT

State of California
City/County of _____ SS

On this ____ day of _____ in the year 20__ before me

_____, personally appeared _____,

Attorney-in-fact

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument as the attorney-in-fact of _____, and acknowledged to me that he (she) subscribed the name of the said company thereto as surety, and his (her) own name as attorney-in-fact.

(SEAL)

Notary Public

GUARANTEE

CITY OF McFARLAND, Department of Public Works, McFarland, California:

In accordance with the terms of the Contract for the _____, between the City of McFarland (hereinafter referred to as City), and the undersigned which Contract provides for the installation of improvements per the plans and specifications for the above referenced project.

When the project is completed and accepted, we guarantee the same to be free from imperfect workmanship and/or materials and we agree to repair and/or replace at our own cost and expense, any and all such work and/or materials which may prove defective in workmanship or materials within a period of one year from the date of acceptance of the above named construction project, ordinary wear and tear or neglect excepted. We also agree to repair and/or replace at our own cost and expense any work and/or materials that we may disturb or displace in making good such defects.

Within twenty-four (24) hours after being notified in writing by the City or the City's representative, or the agent of either of them of any defects in said work or materials we agree to commence and prosecute with due diligence all work necessary to fulfill the terms of this guarantee and to complete the work within a reasonable period of time and in the event of our failure to so comply we collectively and expressly do hereby authorize the City and/or the City's representative, or the agent of either of them to proceed to have such work done at our expense and we will honor and pay the cost and charges therefore upon demand.

This guarantee is made expressly for and runs to the benefit of both the City of the above mentioned construction project and the City's representative and shall be enforceable by either of them.

Signature

Date: _____

Printed Name / Title

Company

Contractor's License Number / Expiration Date

CERTIFICATE OF ACKNOWLEDGEMENT

State of California
City/County of _____ SS

On this _____ day of _____ in the year 20____ before me

_____, personally appeared _____,

Attorney-in-fact

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument as the attorney-in-fact of _____, and acknowledged to me that he (she) subscribed the name of the said company thereto as surety, and his (her) own name as attorney-in-fact.

(SEAL)

Notary Public

GENERAL LIABILITY SPECIAL ENDORSEMENT (Exhibit 1)

GENERAL LIABILITY SPECIAL ENDORSEMENT		Endorsement No. _____	Effective: _____
PRODUCER Telephone: _____	POLICY INFORMATION: Insurance Company: _____ Policy Number: _____ Policy Period: _____ TM Deductible TM Self-Insured (check which) of \$ _____		
NAMED INSURED:	APPLICABILITY. This insurance pertains to the operation and/or tenancy of the named insured under all written agreements and permits in force with the City checked here TM in which case, only the following specific agreements and permits with the City are covered: ENTITY AGREEMENTS/PERMITS		
TYPE OF INSURANCE TM Commercial General Policy TM Business General Policy TM Other	OTHER PROVISIONS:		
LIMIT OF LIABILITY \$ _____ per accident for bodily injury and property LOSS ADJUSTMENT EXPENSE TM Included in limits TM In Addition to limits	Claims: Underwriter's representative for claims pursuant to this insurance. Name: _____ Address: _____ Telephone: _____		
In consideration of the premium charged and notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any endorsement now or hereafter attached thereto, it is agreed as follows: 1. INSURED. The City, its officers, officials, employees, <i>consultants</i> and volunteers are included as insured. 2. CONTRIBUTION NOT REQUIRED. As respects work performed by the Named Insured for or on behalf of the City, the insurance afforded by this policy (a) be primary insurance as respects the City, its officers, officials, employees, <i>consultants</i> and volunteers; or (b) stand in an unbroken chain of coverage excess of Insured's primary coverage. Any insurance or self-insurance maintained by the City, its offices, officials, employees, and volunteers shall be excess of the Insured's insurance and not contribute with it. 3. CANCELLATION NOTICE. The Company will give at least ten (10) days' written notice to the City prior to cancellation of this policy for nonpayment of premium and thirty (30) days' written notice to the City prior to cancellation of this policy for any other reason. 4. SCOPE OF COVERAGE. This policy, if primary, affords coverage at least as broad as: (1) Insurance Services Office Commercial General Liability Coverage, "occurrence" form CG0001 (Ed.11/88); or (2) If excess, affords coverage which is at least as broad as the primary insurance form referenced in the preceding section (1). Except as stated above, nothing herein shall be held to waive, alter, or extend any of the limits, conditions, agreements, or exclusions of the policy to which this endorsement is attached.			
ENDORSEMENT HOLDER			
ENTITY City of McFarland 401 West Kern Ave. McFarland, CA 93250	AUTHORIZED REPRESENTATIVE TM Broker/Agent TM Underwriter TM I _____ (print/type name), warrant that I have authority to bind the above mentioned insurance company and by my signature heron do so bind this company to this endorsement. Signature: _____ (original signature required) Telephone: _____ Date Signed: _____		

COMMERCIAL GENERAL LIABILITY INSURANCE (Exhibit 1-A)

INSURER:
POLICY NUMBER:
INSURANCE COMPANY:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

--ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS--

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

Name of Organization

(If no entry appears above, the information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement).

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that insured by or for you.

----- Modifications to ISO form CG 20 10 11 85: -----

1. The insured scheduled above includes the Insured's officers, officials, employees and volunteers.
2. This insurance shall be primary as respects the insured shown in the schedule above, or if excess, shall stand in an unbroken chain of coverage excess of the Named Insured's scheduled underlying primary coverage. In either event, any other insurance maintained by the Insured scheduled above shall be in excess of this insurance and shall not be called upon to contribute with it.
3. The insurance afforded by this policy shall not be canceled except after thirty (30) days prior written notice by certified mail return receipt requested has been given to the City.

Signature - Authorized Representative

Address

AUTOMOBILE LIABILITY SPECIAL ENDORSEMENT (Exhibit 2)

AUTOMOBILE LIABILITY SPECIAL ENDORSEMENT		Endorsement No.	Effective:
PRODUCER Telephone:	POLICY INFORMATION: Insurance Company: Policy Number: Policy Period: TM Deductible TM Self-Insured (check which) of \$		
NAMED INSURED:	APPLICABILITY. This insurance pertains to the operations of automobiles owned by or on behalf of the named insured under all written agreements and permits in force with the City checked here TM in which case, only the following specific agreements and permits with the City are covered: ENTITY AGREEMENTS/PERMITS		
TYPE OF INSURANCE TM Business General Policy TM Other	OTHER PROVISIONS:		
LIMIT OF LIABILITY \$_____ per accident for bodily injury and property LOSS ADJUSTMENT EXPENSE TM Included in limits TM In Addition to limits	Claims: Underwriter's representative for claims pursuant to this insurance. Name: Address: Telephone:		
In consideration of the premium charged and notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any endorsement now or hereafter attached thereto, it is agreed as follows: 1. INSURED. The City, its officers, officials, employees, and volunteers are included as insured with regard to damages and defense of claims arising from the ownership, operation, maintenance, use loading or unloading of any auto owned, leased, hired, or borrowed by the Named insured, or for which the Named Insured is responsible. 2. CONTRIBUTION NOT REQUIRED. As respects work performed by the Named Insured for or on behalf of the City, the insurance afforded by this policy shall (a) be primary insurance as respects the City, its officers, officials, employees, <i>consultants</i> and volunteers; or (b) stand in an unbroken chain of coverage excess of the Named Insured's primary coverage. Any insurance or self-insurance maintained by the City, its officers, officials, employees, <i>consultants</i> and volunteers shall be excess of the Named Insured's insurance and not contribute with it. 3. CANCELLATION NOTICE. The Company will give at least ten (10) days' written notice to the City prior to cancellation of this policy for nonpayment of premium and thirty (30) days' written notice to the City prior to cancellation of this policy for any other reason. 4. SCOPE OF COVERAGE. This policy, if primary, affords coverage at least as broad as: (1) If primary, Insurance Services Office form number CA0001 (Ed.6/92), Code 1 ("any auto"); or (2) If excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding section (1). Except as stated above, nothing herein shall be held to waive, alter, or extend any of the limits, conditions, agreements, or exclusions of the policy to which this endorsement is attached.			
ENDORSEMENT HOLDER			
ENTITY City of McFarland 401 West Kern Ave. McFarland, CA 93250	AUTHORIZED REPRESENTATIVE TM Broker/Agent TM Underwriter TM I _____ (print/type name), warrant that I have authority to bind the above mentioned insurance company and by my signature heron do so bind this company to this endorsement. Signature: _____ (original signature required) Telephone: _____ Date Signed: _____		

WORKERS COMPENSATION AND EMPLOYER'S LIABILITY (Exhibit 3)

WORKERS COMPENSATION AND EMPLOYER'S LIABILITY FOR THE CITY OF McFARLAND		Endorsement No. Effective Date
PRODUCER Telephone: _____	POLICY INFORMATION: This special endorsement is attached to and forms a part of the following insurance policy. Insurance Company: _____ Policy Number: _____ Policy Period: _____	
NAMED INSURED	OTHER PROVISIONS	
Claims: Underwriter's representative for claims pursuant to this insurance. Name: _____ Address: _____ Telephone: _____	EMPLOYERS LIABILITY LIMITS \$ _____ Each Accident \$ _____ Disease - Policy Limit \$ _____ Disease - Each Employee	
In consideration of the premium charged and not withstanding any inconsistent statement in the policy to which this endorsement is attached of any endorsement now or hereafter attached thereto, it is agreed as follows: 1. CANCELLATION NOTICE. The Company will give at least ten (10) days' written notice to the City prior to cancellation of this policy for nonpayment of premium and thirty (30) days' written notice to the City prior to cancellation of this policy for any other reason. 2. WAIVER OF SUBROGATION. This Insurance Company agrees to waive all rights of subrogation against the City, its officers, officials, employees, <i>consultants</i> and volunteers for losses paid under the terms of this policy which arise from the work performed by the Named Insured for the City. Except as stated above, nothing herein shall be held to waive, alter, or extend any of the limits, conditions, agreements, or exclusions of the policy to which this endorsement is attached.		
ENDORSEMENT HOLDER		
ENTITY City of McFarland 401 West Kern Ave. McFarland, CA 93250	AUTHORIZED REPRESENTATIVE TM Broker/Agent TM Underwriter TM I _____ (print/type name), warrant that I have authority to bind the above mentioned insurance company and by my signature heron do so bind this company to this endorsement. Signature: _____ (original signature required) Telephone: _____ Date Signed: _____	

CERTIFICATE OF INSURANCE (Exhibit 4)

CERTIFICATE OF INSURANCE					Issue Date:	
PRODUCER			This certificate of insurance is not an insurance policy and does not amend extend or alter the coverage afforded by the policies below. Companies Best's Rating Company Letter A _____ Company Letter B _____ Company Letter C _____			
INSURED						
This is to certify that the policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be used or may be issued or may pertain. The insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies, limits shown may have been reduced by paid claims.						
CO LTR	Type of Insurance	Policy Number	Policy Effective date (mm/dd/yy)	Policy Expiration Date (mm/dd/yy)	All units in thousands	
	General Liability Commercial General Liability Claims Made Occur. Owners & Contractor's Other				General Aggregate	\$
					Products-Comp/Op Agg	\$
					Personal & Adv. Injury	\$
					Each Occurrence	\$
					Fire Damage (any one fire)	\$
					Med. Exp. (any one person)	\$
	Automobile Liability Any Auto All Owned Autos Scheduled Autos Hired Autos Non-Owned Autos Garage Utility				Combined Single Limit	\$
					Bodily Injury (per person)	\$
					Bodily Injury (per accident)	\$
					Property Damage	\$
	Excess Liability Umbrella Form Other Than Umbrella				Each Occurrence	\$
					Aggregate	\$
	Worker's Compensation and Employer's Liability				Statutory	\$
					Each Accident	\$
					Disease Policy Limit	\$
					Disease Each Employee	\$
	Other				Amount of Insurance	\$
Description of operations/locations/vehicles/restrictions/special items:						
THE FOLLOWING PROVISIONS APPLY: 1. CANCELLATION NOTICE. The Company will give at least ten (10) days' written notice to the City prior to cancellation of this policy for nonpayment of premium and thirty (30) days' written notice to the City prior to cancellation of this policy for any other reason. 2. The City, its officials, officers, employees, <i>consultants</i> and volunteers are added as insured on all liability insurance policies listed above. 3. It is agreed that any insurance or self-insurance maintained by the City will apply in excess of and not contribute with the insurance described above. 4. The City is named a loss payee on the property insurance policies described above, if any. 5. All rights of subrogation under the property insurance policy listed above have been waived against the City. 6. The workers' compensation insurer named above, if any, agrees to waive all rights of subrogation against the City for injuries to employees of the insured resulting from work for the City or use of the City's premises or facilities.						
CERTIFICATE HOLDER/ADDITIONAL INSURED: City of McFarland 401 West Kern Ave. McFarland, CA 93250				AUTHORIZED REPRESENTATIVE Signature _____ Title _____ Phone No. _____		

INSURANCE REQUIREMENTS FOR CONTRACTORS (Exhibit 6)

(with Construction Risks)

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 00 01 11 88).
2. Insurance Services Office form number CA 00 01 06 92 covering Automobile Liability, code 1 (any auto).
3. Workers' Compensation Insurance as required by the State of California and Employer's Liability Insurance.
4. Course of Construction insurance covering for all risks of loss.

Minimum Limits of Insurance

Contractor shall maintain limits no less than:

1. General Liability: \$1,000,000.00 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: \$1,000,000.00 per accident for bodily injury and property damage.
3. Employer's Liability: \$1,000,000.00 per accident for bodily injury or disease.
4. Course of Construction: Completed value of the project.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its officers, officials, employees, and volunteers are to be covered as insured's with respect to liability arising out of automobiles owned, lease, hired or borrowed by or on behalf of the contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance, or as a separate owner's policy.
2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. **CANCELLATION NOTICE.** The Company will give at least ten (10) days' written notice to the City prior to cancellation of this policy for nonpayment of premium and thirty (30) days' written notice to the City prior to cancellation of this policy for any other reason.

Course of construction policies shall contain the following provisions:

1. The City shall be named as loss payee.
2. The insurer shall waive all rights of subrogation against the City.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: - VII.

Verification of Coverage

Contractor shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on forms provided by the City or on other than the City's forms, provided those endorsements or policies conform to the requirements. All certificates and endorsements are to be received and approved by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time.

Subcontractors

Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage's for subcontractors shall be subject to all the requirements stated herein.

UNDERWRITER/BROKER CERTIFICATION (Exhibit 11)

City: _____

City project identification: _____

Contractor providing contractual services: _____

Insurer(s): _____

Best rating(s): _____

Name and title of underwriter, broker, or agent completing certification: _____

I, the undersigned insurance underwriter, insurance broker, or agent do hereby certify that I have examined the insurance requirements prepared by the City for the above referenced project and have attached herewith certificates of insurance and all endorsements specified in the insurance requirements on forms provided by the City.

I further certify that the coverage's provided to the Contractor and described in the certificates of insurance conform in all respects to the requirements set forth in the insurance requirements, including, but not limited to the following considerations:

1. The scope of insurance is at least as broad as the minimum requirements identified in the insurance requirements;
2. The minimum occurrence limits and aggregate limits of insurance are consistent with those set forth in the insurance requirements;
3. All deductibles and/or self-insured retentions have been declared;
4. All required endorsements identified in the insurance requirements have been provided and copies have been attached to the appropriate certificate of insurance;
5. All policies of insurance have been placed with insurers with a current rating from the A.M. Best Company of not less than A:-VII;
6. All endorsements have been signed by a person authorized by the insurer to bind coverage on its behalf.

The coverage's provided to the Contractor do not conform in all respects to the requirements set forth in the insurance requirements. An explanation of each and every variance from the requirements and an evaluation of the relative risk exposures and protections to the City and the Contractor are attached.

I understand that the City will not authorize the Contractor to initiate work on behalf of the City until this certification has been fully executed and returned to the City.

Signature

Date

Name of Company

Business Address and Phone Number

APPENDIX A – QUALITY ASSURANCE PROGRAM

CITY OF McFARLAND

QUALITY ASSURANCE

PROGRAM

May 2019

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TABLES

Table 1 – Sampling and Testing Frequency Table.

ATTACHMENTS*

Attachment #1 – Exhibit 16-V of the Local Assistance Procedures Manual “Source Inspection Request”

Attachment #2 – Appendix F “Construction Materials Accepted by a Certificate of Compliance”

Attachment #3 – Appendix J “Example Certificates of Compliance

Attachment #4 – Appendix K “Examples of Materials Certificates / Exceptions”

Attachment #5 – Appendix H “Example of Log Summary Sheet”

* Appendices are from the Caltrans Quality Assurance Program Manual

CITY OF McFARLAND

QUALITY ASSURANCE PROGRAM (QAP)

The purpose of this program is to provide assurance that the materials incorporated into the construction projects are in conformance with the contract specifications. This program should be updated every five years or more frequent if there are changes of the testing frequencies or to the tests themselves. To accomplish this purpose, the following terms and definitions will be used:

DEFINITION OF TERMS

- Acceptance Testing (AT) – Sampling and testing, or inspection, to determine the degree of compliance with contract requirements.
- Independent Assurance Program (IAP) – Verification that AT is being performed correctly by qualified testers and laboratories.
- Quality Assurance Program (QAP) – A sampling and testing program that will provide assurance that the materials and workmanship incorporated into the construction project are in conformance with the contract specifications. The main elements of a QAP are the AT, and IAP.
- Source Inspection – AT of manufactured and prefabricated materials at locations other than the job site, generally at the manufactured location.

MATERIALS LABORATORY

The AGENCY will use their own materials laboratory or a private consultant materials laboratory to perform AT on Federal-aid and other designated projects. The materials laboratory shall be under the responsible management of a California registered Engineer with experience in sampling, inspection and testing of construction materials. The Engineer shall certify the results of all tests performed by laboratory personnel under the Engineer's supervision. The materials laboratory shall contain certified test equipment capable of performing the tests conforming to the provisions of this QAP.

The materials laboratory used shall provide documentation that the laboratory complies with the following procedures:

1. Correlation Testing Program – The materials laboratory shall be a participant in one or more of the following testing programs:
 - a. AASHTO Materials Reference Laboratory (AMRL)
 - b. Cement and Concrete Reference Laboratory (CCRL)
 - c. Caltrans' Reference Samples Program (RSP)
2. Certification of Personnel – The materials laboratory shall employ personnel who are certified by one or more of the following:
 - a. Caltrans District Materials Engineer
 - b. Nationally recognized non-Caltrans organizations such as the American Concrete Institute, Asphalt, National Institute of Certification of Engineering Technologies, etc.
 - c. Other recognized organizations approved by the State of California and/or Recognized by local governments or private associations.
3. Laboratory and Testing Equipment – The materials laboratory shall only use laboratory and testing equipment that is in good working order. All such equipment shall be calibrated at least once each year. All testing equipment must be calibrated by impartial means using devices of accuracy traceable to the National Institute of Standards and Technology. A decal shall be firmly affixed to each piece of equipment showing the date of the last calibration. All testing equipment calibration decals shall be checked as part of the IAP.

ACCEPTANCE TESTING (AT)

AT will be performed by a materials laboratory certified to perform the required tests. The tests results will be used to ensure that all materials incorporated into the project are in compliance with the contract specifications.

Testing methods will be in accordance with the CT Methods or a national recognized standard (i.e., AASHTO, ASTM, etc.) as specified in the contract specifications.

Sample locations and frequencies may be in accordance with the contract specifications. If not so specified in the contract specifications, samples shall be taken at the locations and frequencies as shown in **Table 1 – Sampling and Testing Frequency**.

INDEPENDENT ASSURANCE PROGRAM (IAP)

IAP shall be provided by personnel from Caltrans, the Agency's certified materials laboratory, or consultant's certified materials laboratory. IAP will be used to verify that sampling and testing procedures are being performed properly and that all testing equipment is in good condition and properly calibrated.

IAP personnel shall be certified in all required testing procedures, as part of IAP, and shall not be involved in any aspect of AT.

IAP shall be performed on every type of materials test required for the project. Proficiency tests shall be performed on Sieve Analysis, Sand Equivalent, and Cleanness Value tests. All other types of IAP shall be witness tests.

Poor correlation between acceptance tester's results and other test results may indicate probable deficiencies with the acceptance sampling and testing procedures. In cases of unresolved discrepancies, a complete review of AT shall be performed by IAP personnel, or an independent materials laboratory chosen by the Agency. IAP samples and tests are not to be used for determining compliance with contract requirements. Compliance with contract requirements is determined only by AT.

REPORTING ACCEPTANCE TESTING RESULTS

The following are time periods for reporting material test results to the Resident Engineer:

- When the aggregate is sampled at material plants, test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 24 hours after sampling.
- When materials are sampled at the job site, test results for compaction and maximum density should be submitted to the Resident Engineer within 24 hours after sampling.
- When soils and aggregates are sampled at the job site:
 - (1) Test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 72 hours after sampling.
 - (2) Test results for "R" Value and asphalt concrete extraction should be submitted to the Resident Engineer within 96 hours after sampling.

When sampling products such as Portland Cement Concrete (PCC), cement-treated base (CTB), hot mix asphalt (HMA), and other such materials; the time of such sampling shall be varied with respect to the time of the day insofar as possible, in order to avoid a predictable sampling routine. The reporting of AT results, if not performed by the Resident Engineer's staff, shall be done on an expedited basis such as by fax, telephone or email.

TESTING OF MANUFACTURED MATERIALS

During the Design phase of the project, the Project Engineer may submit a "Source Inspection Request" see Attachment#1 (Exhibit 16-V of the LAPM) to the Agency, consultant, or Caltrans for inspection and testing of manufactured and prefabricated materials by their materials laboratory. A list of materials that can be typically accepted on the basis of certificates of compliance during construction is found in Attachment #2 (Appendix F of the QAP Manual). All certificates of compliance shall conform to the requirements of the contract specifications, for examples see Attachment #3 (Appendix J of the QAP Manual).

Should the Agency request Caltrans to conduct the source inspection, and the request is accepted, all sampling, testing, and acceptance of manufactured and prefabricated materials will be performed by Caltrans' Office of Materials Engineering and Testing Services.

For Federal-aid projects on the National Highway System (NHS), Caltrans will assist in certifying the materials laboratory, and the acceptance samplers and testers. For Federal-aid projects off the NHS, Caltrans may be able to assist in certifying the materials laboratory, and the acceptance samplers and testers.

PROJECT CERTIFICATION

Upon completion of a Federal-aid project, a "Materials Certificate" shall be completed by the Resident Engineer. The Agency shall include a "Materials Certificate" in the Report of Expenditures submitted to the Caltrans District Director, Attention: District Local Assistance Engineer. A copy of the "Materials Certificate" shall also be included in the Agency's construction records. The Resident Engineer in charge of the construction function for the Agency shall sign the certificate. All materials incorporated into the work which did not conform to specifications must be explained and justified on the "Materials Certification", including changes by virtue of contract change orders. See Attachment #4 for an example (Appendix K of the QAP Manual).

RECORDS

All material records of samples and tests, material releases and certificates of compliance for the construction project shall be incorporated into the Resident Engineer's project file. If a Federal-aid project:

- The files shall be organized as described in Section 16.8 "Project Files" of the Local Assistance Procedures Manual.
- It is recommended that the complete project file be available at a single location for inspection by Caltrans and Federal Highway Administration (FHWA) personnel.
- The project files shall be available for at least three years following the date of final project voucher.
- The use of a "Log Summary," as shown in Appendix H of the QAP Manual (See Attachment #5), facilitates reviews of material sampling and testing by Caltrans and FHWA, and assists the Resident Engineer in tracking the frequency of testing.

When two or more projects are being furnished identical materials simultaneously from the same plant, it is not necessary to take separate samples or perform separate tests for each project; however, copies of the test reports are to be provided for each of the projects to complete the records.

APPROVED BY: JUAN M. PANTOJA
(Signature)

NAME: Juan M. Pantoja DATE: May 13, 2019

TITLE: Consultant Engineer, Designee of Public Works Director



Table 1 – Sampling and Testing Frequency Table

HOT MIX ASPHALT (HMA) / ASPHALT CONCRETE (AC)			
Quality Characteristic	Test Method	Minimum Sampling And Testing Frequency	Location of Sampling
Aggregate Gradation	CT 202	1 per 1000 tons or Part thereof; Min. 1 per day during production/placement of at least 300 tons per day	At Plant Per CT 125 (a)
Sand Equivalent	CT 217		
Asphalt Binder Content	CT 382 or ASTM D2172		Loose Mix behind paver per CT 125 (a)
Relative Compaction of in-place AC (Nuclear)	Nuclear (b) CT 375 or ASTM D2950 (c)	1 set per 500 tons or Part thereof; Min. 1 set per day during production/placement of at least 300 tons per day	Random locations per CT 375 (c)
Specific Gravity and Density	CT 309 (e)	1 per day during production/placement of at least 300 tons per day	Loose mix behind paver per CT 125 (a)
HMA Moisture Content	CT 226 or CT 370		
Stabilometer Value(d)	CT 366		
Asphalt Binder Content	--- (f)	Sample 1 minimum per day for production over 300 tons per day; See (f) regarding testing	At Plant per CT 125
Smoothness	12-foot straightedge	As necessary to confirm contract compliance	Final pavement surface

(a) Exact tonnage of sample location to be determined by Random Sampling Plans.

(b) Compaction determined by Nuclear Density Device. Core testing required if compaction fails the nuclear test.

(c) Correlation between core densities and nuclear device required only if compaction fails the nuclear test.

(d) Report the average of 3 tested briquettes from a single split sample.

(e) Use CT 309 to determine maximum theoretical density in place of CT 367 calculated maximum theoretical density.

(f) No testing required unless warranted by concern; sample and store until completion of project.

SUBGRADE (DISTURBED BASEMENT SOIL) OR ENBANKMENT			
Quality Characteristic	Test Method	Minimum Sampling And Testing Frequency	Location of Sampling
In-Place Density/ Relative Compaction	CT 231 or ASTM D6938	1 Min. test per 5,000 sq. ft. under vehicle traveled way and shoulder. 1 Min. test per 300 linear foot under sidewalk	Random locations as determined by the Engineer in place after compaction

AGGREGATE BASES AND SUBBASES			
Quality Characteristic	Test Method	Minimum Sampling And Testing Frequency	Location of Sampling
Sieve Analysis	CT 202 or ASTM C136	1 min. test per material source on jobs with over 500 tons	Sample from site stockpile/plant prior to placement
R-Value	CT 301 or ASTM D2844		
Sand Equivalent	CT 217 or ASTM D2419		
In-Place Density/ Relative Compaction	CT 231 or ASTM D6938	1 min. test per 5,000 sq. ft.	Random locations as determined by the Engineer in place after compaction

Table 1 – Sampling and Testing Frequency Table (continued)

STRUCTURE BACKFILL, SELECT BACKFILL, IMPORTED BORROW			
Quality Characteristic	Test Method	Minimum Sampling And Testing Frequency	Location of Sampling
Sieve Analysis	CT 202 or ASTM C136	1 min. test per material source	Sample from site stockpile/plant prior to placement
R-Value	CT 301 or ASTM D2844		
Sand Equivalent	CT 217 or ASTM D2419		
In-Place Density/ Relative Compaction	CT 231 or ASTM D6938	1 min. test per 2 vertical lifts of placement	Random locations as determined by the engineer in place after compaction

PORTLAND CEMENT CONCRETE (PCC) – STRUCTURAL AND SIGNAL/LIGHTING FOUNDATIONS
--

COARSE AGGREGATE			
Quality Characteristic	Test Method	Minimum Sampling And Testing Frequency	Location of Sampling
Sieve Analysis	CT 202 or ASTM C136	1 min. test per 500 cu. yds. And per each material source; 1 min. test on smaller projects; If bridge, 1 min. set per separate pour per abutment/pier/deck	Sample from site stockpile/plant prior to placement
Cleanness Value	CT 227		

FINE AGGREGATE			
Quality Characteristic	Test Method	Minimum Sampling And Testing Frequency	Location of Sampling
Sieve Analysis	CT 202 or ASTM C136	1 min. test per 500 cu. yds. And per each material source; 1 min. test on smaller projects; If bridge, 1 min. set per separate pour per abutment/pier/deck	Sample from site stockpile/plant prior to placement
Sand Equivalent	CT 217		

WET MIX			
Quality Characteristic	Test Method	Minimum Sampling And Testing Frequency	Location of Sampling
Slump/Penetration	CT 533 or ASTM C143	1 min. on projects with 500 cu. yds. or more, test at least one sample per job.	Sample from truck/work site
Cylinders	CT 539/540 ASTM C172/C31	1 min. set of 3 for each 500 to 1,000 cu. yds.; If bridge, 1 min. set per separate pour per abutment/pier/deck. Test for compressive strength.	

ATTACHMENT #1

**SAMPLE COVER MEMO SOURCE
INSPECTION REQUEST FROM
LOCAL AGENCY TO
CALTRANS' DISTRICT LOCAL ASSISTANCE ENGINEER
(Prepared By Applicant On Applicant Letterhead)**

To: (DLAE name)
Caltrans' District Local Assistance Engineer
Caltrans' Local Assistance Office
(District office Address)

Date: _____

Federal-aid Project Number: _____ (if one has been assigned)

Project Description _____

Project Location: _____

Subject: (Source Inspection for Project Name, County) _____

We are requesting that Caltrans provide Source Inspection (reimbursed) services for the above mentioned project. We understand we are responsible for paying for this service provided for by the State. Listed below are the materials for which we are requesting Caltrans' Source Inspection (reimbursed) services.

Materials that will require source inspection:

Justification for request: (Based on the requirements in Section 16.14 under "Source Inspection") _____

Any question you might have about the above materials should be directed to: _____, at (phone #) _____.

Approved:

(Applicant Representative Name)

(DLAE name)
District Local Assistance Engineer

(Title)

(Date)

(Local agency, name & address)



ATTACHMENT #2

Appendix F - Construction Materials Accepted by a Certificate of Compliance *

Soil Amendment
Fiber
Mulch
Stabilizing Emulsion
Plastic Pipe
Lime
Reinforcing Steel
Structural Timber and Lumber
Treated Timber and Lumber
Timber and Lumber
Culvert and Drainage Pipe Joints
Reinforced Concrete Pipe
Corrugated Steel Pipe and Corrugated Steel Pipe Arches
Structural Metal Plate Pipe Arches and Pipe Arches
Perforated Steel Pipe
Polyvinyl Chloride Pipe and Polyethylene Tubing
Steel Entrance Tapers, Pipe Down drains, Reducers, Coupling Bands and Slip Joints
Aluminum Pipe (Entrance Tapers, Arches, Pipe Down drains, Reducers, Coupling Bands and Slip Joints)
Metal Target Plates
Electrical Conductors
Portland Cement
Minor Concrete
Waterstop

* If Caltrans Standard Specifications May 2006 is part of contract specifications.

Note: Usually these items are inspected at the site of manufacture or fabrication and reinspected after delivery to the job site.



ATTACHMENT #3

Appendix J.1 - Example of a Vendor's Certificate of Compliance

No. 583408

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
VENDOR'S CERTIFICATE OF COMPLIANCE
MR-0543 (REV. 5/93) #CT-7541-6020-2

☐ PRECAST CONCRETE PRODUCTS OR ☒ SOUNDWALL

TO: BILL SYNDER

STATE HIGHWAY ENGINEER
RESIDENT ENGINEER - CITY OF FLATLAND

We certify that the portland cement, chemical and mineral admixtures contained in the material described below are brands stated and comply with specifications for:

CONTRACT NUMBER:

CEMENT BRAND <u>XYZ CEMENT CO.</u>	MILL LOCATION <u>MIDLAND,</u>
TYPE <u>II MODIFIED</u>	<u>CALIFORNIA</u>

CHEMICAL ADMIXTURE

1. BRAND <u>ABC ADMIXTURE</u>	MANUFACTURER <u>XYZ SUPPLIER</u>
TYPE <u>WATER REDUCER</u>	

2. BRAND	MANUFACTURER
TYPE	

☐ CHECK BOX IF A CHEMICAL ADMIXTURE WAS NOT USED

MINERAL ADMIXTURE

MANUFACTURER <u>POZZ. INC.</u>	CLASS <u>F</u>
-----------------------------------	-------------------

☐ CHECK BOX IF A MINERAL ADMIXTURE WAS NOT USED

DELIVERY DATE (Ready-Mix) <u>7/7/07</u>	DATES OF FABRICATION (Precast)
--	--------------------------------

LIST PRODUCTS TO WHICH CERTIFICATE APPLIES. (Show size and lin. ft. of pipe, etc., delivery slip numbers for ready-mix.)

Portland Cement
Flyash
Water Reducer

MANUFACTURER OF CONCRETE PRODUCTS

A. & B. READY MIX

By: AUTHORIZED REPRESENTATIVE SIGNATURE

Joe Anderson

FM 93 1839

Original to Res. Engr. Retain Duplicate.

OSP 01 55624



Appendix J.2 - Example of a Certificate of Compliance for Portland Cement (continued)

This is to certify that the

Portland Cement.

Supplied by ABC Cement Company complies with all
requirements for Type II Portland Cement when tested in
accordance with ASTM C - 494.

Local Agency Project No.

HP21L – 5055 – 111

Albert Howakowa

Quality Assurance Engineer
ABC Cement Company

Date: 07/07/07.



ATTACHMENT #4

**Appendix K - Examples of Materials Certificates/Exceptions
(Signed by the Resident Engineer at the Completion
of the Project)**

Federal-aid Project No.: Project HP21L – 5055 – 111

Subject: Materials Certification

This is to certify that the results of the tests on acceptance samples indicate that the materials incorporated in the construction work and the construction operations controlled by sampling



and testing were in conformity with the approved plans and specifications.



All materials exceptions to the plans and specifications on this project are noted below.

No exceptions were found to the plans and specifications on this project.

Bill Sanders
Resident Engineer (Print Name)

Bill Sanders
Resident Engineer (Signature)

7/7/07
(Date)

Note: The signed original of this certificate is placed in the Resident Engineer's project files and one copy is mailed to the DLAE and filed under "Report of Expenditures."

See the attachment (next page)



Appendix K (continued)

Attachments: Materials Exceptions (Acceptance Testing)

Type of Test	Description of Work	Total Tests Performed On the Project	Number of Failed Tests	Action Taken
Slump Test	Concrete Sidewalk	8	1	When the measured slump exceeded the maximum limit, the entire concrete load was rejected.
Sand Equivalent	Aggregate for Structural Concrete	10	1	The tested S.E. was 70 and the contract compliance specification was 71 minimum. However, the concrete 28-day compressive strength was 4800 psi. The concrete was considered adequate and no materials deductions were taken.
Compaction	Sub grade Material	12	1	One failed test was noted. The failed area was watered and reworked. When this was completed, a retest was performed. The retest was acceptable.
Compaction	Hot Mix Asphalt	12	1	One failed area was noted. It was reworked and retested. The second test met specifications.

Bill Sanders
Resident Engineer (Print Name)

Bill Sanders
Resident Engineer (Signature)

July 4, 2007
Date



ATTACHMENT #5

Appendix H - Example of a Log Summary Sheet

Subgrade Materials

Date	CT	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
5/15/07	231	1+ 00 (30' L)	99.00	93	90 or greater	Passed	N/A
5/16/07	231	1+ 50 (20' R)	100.50	94	90 or greater	Passed	N/A
5/17/07	231	2+ 25 (25' R)	101.00	96	90 or greater	Passed	N/A
5/18/07	231	1+ 50 (30' L)	101.50	95	95 or greater	Passed	N/A
5/19/07	231	2+ 50 (20' L)	102.00	92 *	95 or greater	Failed	See Note 1
5/19/07	231	2+ 50 (20' L)	102.00	95	95 or greater	Passed	N/A

CT 231 = Compaction (Nuclear Gage)

* Note 1: The Contractor used a water tank to dampen the soil surface at the failed subgrade location. Using a sheep's foot compactor, he reworked the subgrade (making at least 10 passes) from Station 2+ 00 to Station 3+ 00. After approximately 30 minutes, another compaction test was taken. This time the relative compaction was 95.

Aggregates and Base Materials

Date	CT	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
6/20/07	202	1+ 00 (10' R)	102.50	See data sheet	See data sheet	Passed	N/A
6/20/07	202	2+ 00 (20' L)	102.50	See data sheet	See data sheet	Passed	N/A
6/22/07	217	1+ 00 (10' R)	102.50	75	25 or greater	Passed	N/A
6/22/07	217	2+ 00 (20' L)	102.50	83	25 or greater	Passed	N/A
6/20/07	227	1+ 00 (20' R)	102.50	86	71 or greater	Passed	N/A
6/20/07	227	1+ 50 (20' L)	102.50	85	71 or greater	Passed	N/A
6/24/07	231	2+ 00 (20' R)	102.50	98	95 or greater	Passed	N/A
6/24/07	231	2+ 50 (20' L)	102.50	97	95 or greater	Passed	N/A

CT 202 = Sieve Analysis, CT 217 = Sand Equivalent, CT 227 = Cleanness Value,
CT 231 = Compaction (Nuclear Gage)



Appendix H (continued)

Hot Mix Asphalt

Date	CT	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
7/10/07	339	1+ 00 (10' R)	103.00	0.08 gal/ sq yd	0.05 -0.10 gal/sq yd	Passed	N/A
7/10/07	366	2+ 00 (20' L)	103.00	32	>23	Passed	N/A
7/10/07	366	1+ 00 (10' R)	103.00	41	>23	Passed	N/A
7/10/07	375	2+ 00 (20' L)	103.00	94	RC = 93 to 97	Passed	N/A
7/15/07	375	1+ 00 (20' R)	103.00	96	RC = 93 to 97	Passed	N/A
7/15/07	375	1+ 50 (20' L)	103.00	95	RC = 93 to 97	Passed	N/A

CT 339 = Distributor Spread Rate, CT 366 = Stabilometer Value

CT 375 = In-Place Density & Relative Compaction

Portland Cement Concrete

Date	CT	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
9/25/07	504	10 + 50 (50' R)	102.50	6.5%	>6.0%	Passed	N/A
9/25/07	533	12 + 50 (50' R)	102.50	1.5"	<2"	Passed	N/A
9/25/07	518	11 + 50 (50' R)	102.50	151 lb/cu ft	> 145 lb/cu ft	Passed	N/A
9/25/07	521	10 + 50 (50' R)	102.50	28 day = 4200 psi	>3800 psi	Passed	N/A
9/28/07	521	11 + 50 (50' R)	102.50	28 day = 4290 psi	>3800 psi	Passed	N/A
9/30/07	521	12 + 50 (50' R)	102.50	28 day = 4160 psi	>3800 psi	Passed	N/A

CT 504 = Air Content, CT 518 = Unit Weight, CT 521 = Compressive Strength,

CT 533 = Ball Penetration

APPENDIX B – CONSTRUCTION PROJECT FUNDING SIGNS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



NOTES:

1. Provided dimensions are for the 144"x90" sign. For the 96"x60" sign, calculate each dimension by 2/3 (0.667). For the 48"x30" sign, calculate each dimension by 1/3 (0.333).
2. Use when the project involves Senate Bill 1 funds.

C48 (CA)

ENGLISH UNITS

A	B
144	90
96	60
48	30

COLORS: LEGEND - BLACK (ARIAL BOLD ITALIC)

BACKGROUND - WHITE AND FLUORESCENT ORANGE

SENATE BILL 1 LOGO - CMYK COORDINATES FOR SB1 LOGO ARE AS FOLLOWS:

BROWN (C 80%, M 80%, Y 80%, K 20%), LIGHT CREAM (C 0%, M 2%, Y 7%, K 0%),

BLUE (C 75%, M 23%, Y 1%, K 0%), GREEN (C 90%, M 20%, Y 80%, 0%),

YELLOW GOLD (C 0%, M 38%, Y 85%, K 4%), RED (C 16%, M 84%, Y 65%, K 3%)

BE WORK ZONE ALERT RIBBON: PANTONE #299 BLUE AND ORANGE

(SEE VECTOR GRAPHICS FILES FOR SB1 LOGO AND BE WORK ZONE ALERT RIBBON)

ALL COLORS TO BE RETROREFLECTIVE, EXCEPT FOR BLACK

APPENDIX C – PAVEMENT INVESTIGATION REPORT for DAVIS AVE.



700 22nd Street
Bakersfield CA 93301
P 661.327.0671
F 661.324.4218
www.bskassociates.com

Sent via email: juan@bhtengineering.com

BSK Project G21-029-11B

May 28, 2021

Mr. Juan Pantoja, P.E.
BHT Engineering, Inc.
218 S H Street, Suite 201
Bakersfield, California 93304

**SUBJECT: Report - Pavement Investigation
 Davis Avenue Rehabilitation Project
 Between Elmo Highway and W. Perkins Avenue
 McFarland, California**

Dear Mr. Pantoja,

BSK Associates (BSK) has conducted a Pavement Investigation for Davis Avenue in McFarland, California. Our scope of services included sampling the existing subgrade materials, laboratory testing, engineering analyses, and preparation of this report.

1.0 BACKGROUND

BSK understands that the site is located in McFarland, California. BSK understands the road rehabilitation project is approximately 0.5 miles along Davis Avenue between Elmo Highway and W. Perkins Avenue. BSK understands that there are three options for rehabilitation as follows: Option 1) full-depth pavement, Option 2) pavement over aggregate base, and Option 3) pavement over soil-cement treated base. The overall location of the pavement investigation is presented on Figure 1, *Site Vicinity Map*.

2.0 FIELD INVESTIGATION

BSK sampled the subgrade materials and drilled to a depth of approximately 4-feet below grade using hand auger equipment on February 17, 2021 at five (5) locations. BSK has presented the locations in Figure 2, *Boring Location Map*. The boring logs enclosed provide a more detail description of the materials encountered. BSK has presented the locations and existing pavement sections measured during the investigation in Table 1, *Existing Pavement Sections*.

Table 1: Existing Pavement Sections				
ID	Completion Depth (feet)	AC Thickness (inches)	AB Thickness (inches)	Sub-grade Soil Description
B-1	4	2.25	7.5	SM: SILTY SAND: slightly moist, yellow brown, fine to coarse sand, subrounded, trace fine gravel, trace clay
B-2	4	4	2	SM: SILTY SAND: slightly moist, yellow brown, fine to coarse sand, subrounded, trace fine gravel
B-3	4	4.75	2.5	SM: SILTY SAND: slightly moist, yellow brown, fine to coarse sand, subrounded, trace fine gravel
B-4	4	3	1	SM: SILTY SAND: slightly moist, olive brown, fine to coarse sand, rounded to subrounded, trace fine to coarse gravel
B-5	4	5	8	SM: SILTY SAND: slightly moist, olive brown, fine to coarse sand, subrounded, trace fine to coarse gravel

3.0 LABORATORY TESTING

Laboratory tests were performed on bulk soil samples that BSK sampled on February 17, 2021 to evaluate fines content, soluble sulfate, moisture-density relationship, R-values, and soil cement compressive strength.

BSK performed R-Value on three (3) bulk soil samples. BSK has presented the R-Value test results in Table 2, *R-Value Test Results*.

Table 2: R-Value Test Results	
Location	R-Value
B-1	26
B-3	28
B-5	26

Surface soil samples obtained from the Site were tested to provide a preliminary screening of the potential for concrete deterioration or steel corrosion due to attack by soil-borne soluble salts. The test results are presented in Table 3, *Summary of Corrosion Test Results*.



Table 3: Summary of Corrosion Test Results	
Sample Location	Sulfate, ppm
B-2 @ 0-3 feet bgs	Not Detected
B-4 @ 0-3 feet bgs	Not Detected

BSK performed one (1) soil cement mix design test using 3%, 5%, and 7% cement added to sample and remolded to 95% maximum dry density per the respective moisture-density relationship tests (ASTM D1557). The test results are presented in Figures 8-10 and Table 4 below.

Table 4: Soil Cement Test Results				
Location	Age (days)	Compressive Strength (psi)		
		3% cement added	5% cement added	7% cement added
B-1, B-2, B-3, B-4, B-5 @ 0-5 feet bgs, combined	7	392	638	762
B-1, B-2, B-3, B-4, B-5 @ 0-5 feet bgs, combined	14	632	781	856
B-1, B-2, B-3, B-4, B-5 @ 0-5 feet bgs, combined	21	696	862	945

4.0 RECOMMENDATIONS

Conventional Pavement Section Recommendations

BSK calculated the conventional pavement section thicknesses using the average of the three subgrade R-Values, 27, and Traffic Indexes of 5, 6, 7, 8, and 9. BSK has presented a summary of its pavement section thickness' recommendations in Table 5, *Conventional Pavement Section Recommendations*.



Table 5: Conventional Pavement Section Recommendations (R-Value = 27)			
Traffic Index	AC Thickness (inches)	Aggregate Base Thickness (inches)	Total Pavement Section Thickness (inches)
5	3	7	10
6	3	9	12
7	4	10	14
8	5	12	17
9	5	14	19

BSK recommends the contractor scarify the subgrade soil 8-inches, moisture condition it to within 2% of optimum and recompact it to at least 95% of the maximum dry density per ASTM D 1557 prior to placing the new aggregate base section. BSK also recommends the contractor moisture condition the aggregate base within 2% of optimum and compact it to at least 95% of the maximum dry density per ASTM D 1557 prior to placing the asphalt pavement section.

Soil Cement Pavement Section Recommendations

BSK recommends using soil-cement with a cement content of 3%. BSK calculated the pavement thickness using a minimum compressive strength of 300 psi, a subgrade R-Value of 27 and Traffic Indexes 5, 6, 7, 8, and 9. BSK has presented a summary of our pavement section thickness recommendations for new asphalt over soil-cement in Table 6, *Soil-Cement Pavement Section Recommendations*.

Table 6: Soil-Cement Pavement Section Recommendations (Cement Content = 3%) (Unconfined Minimum Compressive Strength = 300 psi) (R-Value = 27)			
Traffic Index	AC Thickness (inches)	Soil-Cement Thickness (inches)	Total Pavement Section Thickness (inches)
5	2	12	14
6	3	12	15
7	4	12	16
8	4	12	16
9	5	12	17

Using Traffic Indexes (TI) of 5, 6, 7, 8, or 9 and a minimum soil-cement compressive strength of 300-psi, BSK recommends that the contractor grind the existing asphalt concrete pavement to a depth of 3 inches and then pulverize the exposed material and then grade to the design soil cement grade. After grading,



uniformly mix the pulverized material with 3% cement, moisture condition it to the optimum moisture content, and compact it to 95% relative compaction of ASTM D1557 to achieve the total pavement section thickness BSK as presented in Table 6.

If unstable soil condition should occur during construction, BSK recommends replacing the unstable material with a minimum of two feet of Class II aggregate base or 18 inches of soil cement. The aggregate base or soil cement should be brought to optimum moisture content and compacted to 95% relative compaction of ASTM D1557.

Full Depth AC Recommendations

BSK calculated the full depth asphalt pavement section thicknesses using the average of the three subgrade R-Values, 27, and Traffic Indexes of 5, 6, 7, 8, and 9. BSK has presented a summary of its full depth asphalt pavement section thickness' recommendations in Table 7, *Full Depth AC Recommendations*.

Table 7: Full Depth AC Recommendations (R-Value = 27)	
Traffic Index	AC Thickness (inches)
5	6
6	8
7	10
8	12
9	14

The subgrade should be proof rolled to make sure the subgrade is firm and stable prior to AC placement.



5.0 CLOSING

BSK appreciates the opportunity to be of service to you on this project. If you have any questions, or would like additional information, please call us at (661) 327-0671.

Respectfully submitted,
BSK ASSOCIATES



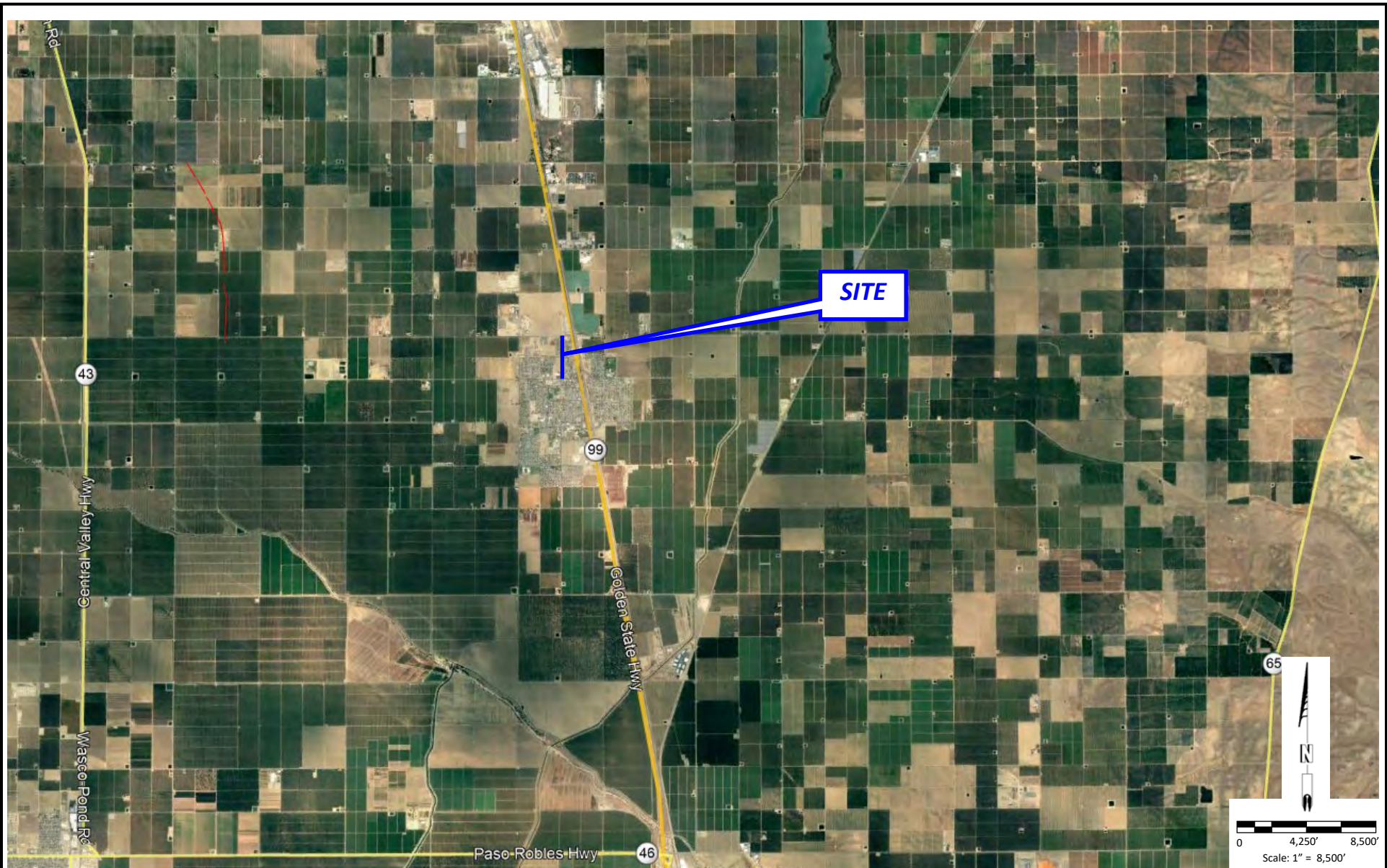
Adam Terronez, P.E., G.E.
Bakersfield Branch Manager



On Man Lau, P.E., G.E.
South Valley Regional Manager

Attachments:	Figure 1:	Site Vicinity Map
	Figure 2:	Boring Location Map
	Figure 3:	Soil Classification Chart and Key to Test Data
	Borings B-1 through B-5:	Boring Logs
	Figure 4:	Moisture-Density Relationship Test Results
	Figures 5 through 7:	R-Value Test Results
	Figures 8 through 10:	Compressive Strength Test Results
	Figure 11:	Cement Treatment Specifications





REFERENCE IMAGE: Google Earth 2021

ESK
ASSOCIATES
 700 22nd Street
 Bakersfield, California 93301
 Tel. (661) 327-0671

SITE VICINITY MAP

Davis Avenue Rehabilitation Project
 McFarland, Kern County, California

FIGURE 1

JOB NO. G21-029-11B

DATE May 2021

DR. BY VS

CH. BY AXT

SCALE AS SHOWN

SHEET NO. 1
 OF 1 SHEETS



REFERENCE IMAGE: Google Earth 2021

LEGEND:

 APPROXIMATE BORING LOCATION

ESK
ASSOCIATES
700 22nd Street
Bakersfield, California 93301
Tel. (661) 327-0671

BORING LOCATION MAP

Davis Avenue Rehabilitation Project
McFarland, Kern County, California

FIGURE 2

JOB NO. G21-029-11B

DATE May 2021

DR. BY VS
CH. BY AXT

SCALE AS SHOWN

SHEET NO. 1
OF 1 SHEETS

MAJOR DIVISIONS					TYPICAL NAMES
COARSE GRAINED SOILS More than Half >#200	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES
			GP		POORLY GRADED GRAVELS, GRAVEL- SAND MIXTURES
		GRAVELS WITH OVER 15% FINES	GM		SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
			GC		CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS, GRAVELLY SANDS
			SP		POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 15% FINES	SM		SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
			SC		CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
FINE GRAINED SOILS More than Half <#200 sieve	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL		ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH		INORGANIC SILTS , MICACEOUS OR DIATOMACIOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt		PEAT AND OTHER HIGHLY ORGANIC SOILS

Note: Dual symbols are used to indicate borderline soil classifications.

	Pushed Shelby Tube	RV	R-Value
	Standard Penetration Test	SA	Sieve Analysis
	Modified California	SW	Swell Test
	Auger Cuttings	TC	Cyclic Triaxial
	Grab Sample	TX	Unconsolidated Undrained Triaxial
	Sample Attempt with No Recovery	TV	Torvane Shear
CA	Chemical Analysis	UC	Unconfined Compression
CN	Consolidation	(1.2)	(Shear Strength, ksf)
CP	Compaction	WA	Wash Analysis
DS	Direct Shear	(20)	(with % Passing No. 200 Sieve)
PM	Permeability		Water Level at Time of Drilling
PP	Pocket Penetrometer		Water Level after Drilling (with date measured)

SOIL CLASSIFICATION CHART AND KEY TO TEST DATA

Unified Soil Classification System



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Fax: (661) 324-4218

LOG OF BORING NO. B-01

Project Name: **Davis Avenue Rehabilitation Project**
Project Number: **G21-029-11B**
Project Location: **McFarland, California**
Logged by: **A. Becerra**
Checked by: **A. Terronez**

Depth, feet	Graphic Log	Surface El.: Location:	Samples	Sample Number	Penetration Blows / Foot	Pocket Penetro- meter, TSF	% Passing No. 200 Sieve	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index
		MATERIAL DESCRIPTION										
		ASPHALT CONCRETE: AC = 2.25"										
		AGGREGATE BASE: AB = 7.5"										
		SM: SILTY SAND: slightly moist, yellow brown, F-C, sub-rounded, trace gravel										
		trace CL						106	13			
		End of boring.										
5												
10												
Completion Depth: 3.0 Date Started: 2/17/21 Date Completed: 2/17/21 California Sampler: n/a SPT Sampler: n/a			Drilling Equipment: Coring Machine Drilling Method: Hand Auger Equipment Drive Weight: n/a Hole Diameter: 4 inches Drop: n/a Remarks: Borings backfilled with soil cuttings. Capped with cold-asphalt mix									

GEO_TARGET BORING LOGS.GPJ GEOTECHNICAL 08.GDT 5/6/21



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Bakersfield, CA 93301
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Fax: (661) 324-4218

LOG OF BORING NO. B-02

Project Name: **Davis Avenue Rehabilitation Project**
Project Number: **G21-029-11B**
Project Location: **McFarland, California**
Logged by: **A. Becerra**
Checked by: **A. Terronez**

Depth, feet	Graphic Log	Surface El.: Location:	Samples	Sample Number	Penetration Blows / Foot	Pocket Penetro- meter, TSF	% Passing No. 200 Sieve	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index
		MATERIAL DESCRIPTION										
		ASPHALT CONCRETE: AC = 4"										
		AGGREGATE BASE: AB = 2"										
		SM: SILTY SAND: slightly moist, yellow brown, F-C, sub-rounded, trace gravel										
		sandy bottom 3"						118	10			
		End of boring.										
5												
10												
Completion Depth: 3.0 Date Started: 2/17/21 Date Completed: 2/17/21 California Sampler: n/a SPT Sampler: n/a			Drilling Equipment: Coring Machine Drilling Method: Hand Auger Equipment Drive Weight: n/a Hole Diameter: 4 inches Drop: n/a Remarks: Borings backfilled with soil cuttings. Capped with cold-asphalt mix									

GEO_TARGET BORING LOGS.GPJ GEOTECHNICAL 08.GDT 5/6/21



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Bakersfield, CA 93301
Telephone: (661) 327-0671
Fax: (661) 324-4218

LOG OF BORING NO. B-03

Project Name: **Davis Avenue Rehabilitation Project**
Project Number: **G21-029-11B**
Project Location: **McFarland, California**
Logged by: **A. Becerra**
Checked by: **A. Terronez**

Depth, feet	Graphic Log	Surface El.: Location:	Samples	Sample Number	Penetration Blows / Foot	Pocket Penetro- meter, TSF	% Passing No. 200 Sieve	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index
		MATERIAL DESCRIPTION										
		ASPHALT CONCRETE: AC = 4.75"										
		AGGREGATE BASE: AB = 2.5"										
		SM: SILTY SAND: slightly moist, yellow brown, F-C, sub-rounded, trace gravel										
		trace CL										
		F-M, trace CL						119	8			
		End of boring.										
5												
10												
Completion Depth: 3.0 Date Started: 2/17/21 Date Completed: 2/17/21 California Sampler: n/a SPT Sampler: n/a			Drilling Equipment: Coring Machine Drilling Method: Hand Auger Equipment Drive Weight: n/a Hole Diameter: 4 inches Drop: n/a Remarks: Borings backfilled with soil cuttings. Capped with cold-asphalt mix									

GEO_TARGET BORING LOGS.GPJ GEOTECHNICAL 08.GDT 5/6/21



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Bakersfield, CA 93301
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Fax: (661) 324-4218

LOG OF BORING NO. B-04

Project Name: **Davis Avenue Rehabilitation Project**
Project Number: **G21-029-11B**
Project Location: **McFarland, California**
Logged by: **A. Becerra**
Checked by: **A. Terronez**

Depth, feet	Graphic Log	Surface El.: Location:	Samples	Sample Number	Penetration Blows / Foot	Pocket Penetro- meter, TSF	% Passing No. 200 Sieve	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index
		MATERIAL DESCRIPTION										
		ASPHALT CONCRETE: AC = 3"										
		AGGREGATE BASE: AB = 1"										
		SM: SILTY SAND: slightly moist, olive brown, F-C, rounded to sub-rounded, trace gravel										
		F-M										
								82	7			
		End of boring.										
5												
10												

GEO_TARGET BORING LOGS.GPJ GEOTECHNICAL 08.GDT 5/6/21

Completion Depth: 3.0	Drilling Equipment: Coring Machine
Date Started: 2/17/21	Drilling Method: Hand Auger Equipment
Date Completed: 2/17/21	Drive Weight: n/a
California Sampler: n/a	Hole Diameter: 4 inches
SPT Sampler: n/a	Drop: n/a
Remarks: Borings backfilled with soil cuttings. Capped with cold-asphalt mix	



BSK Associates
700 22nd Street
Bakersfield, CA 93301
Telephone: (661) 327-0671
Fax: (661) 324-4218

LOG OF BORING NO. B-05

Project Name: **Davis Avenue Rehabilitation Project**
Project Number: **G21-029-11B**
Project Location: **McFarland, California**
Logged by: **A. Becerra**
Checked by: **A. Terronez**

Depth, feet	Graphic Log	Surface El.: Location:	Samples	Sample Number	Penetration Blows / Foot	Pocket Penetro- meter, TSF	% Passing No. 200 Sieve	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index
		MATERIAL DESCRIPTION										
		ASPHALT CONCRETE: AC = 5"										
		AGGREGATE BASE: AB = 8"										
		SM: SILTY SAND: slightly moist, olive brown, F-C, sub-rounded, trace gravel										
		F-M, trace CL						119	8			
		End of boring.										
5												
10												
Completion Depth: 3.0 Date Started: 2/17/21 Date Completed: 2/17/21 California Sampler: n/a SPT Sampler: n/a			Drilling Equipment: Coring Machine Drilling Method: Hand Auger Equipment Drive Weight: n/a Hole Diameter: 4 inches Drop: n/a Remarks: Borings backfilled with soil cuttings. Capped with cold-asphalt mix									

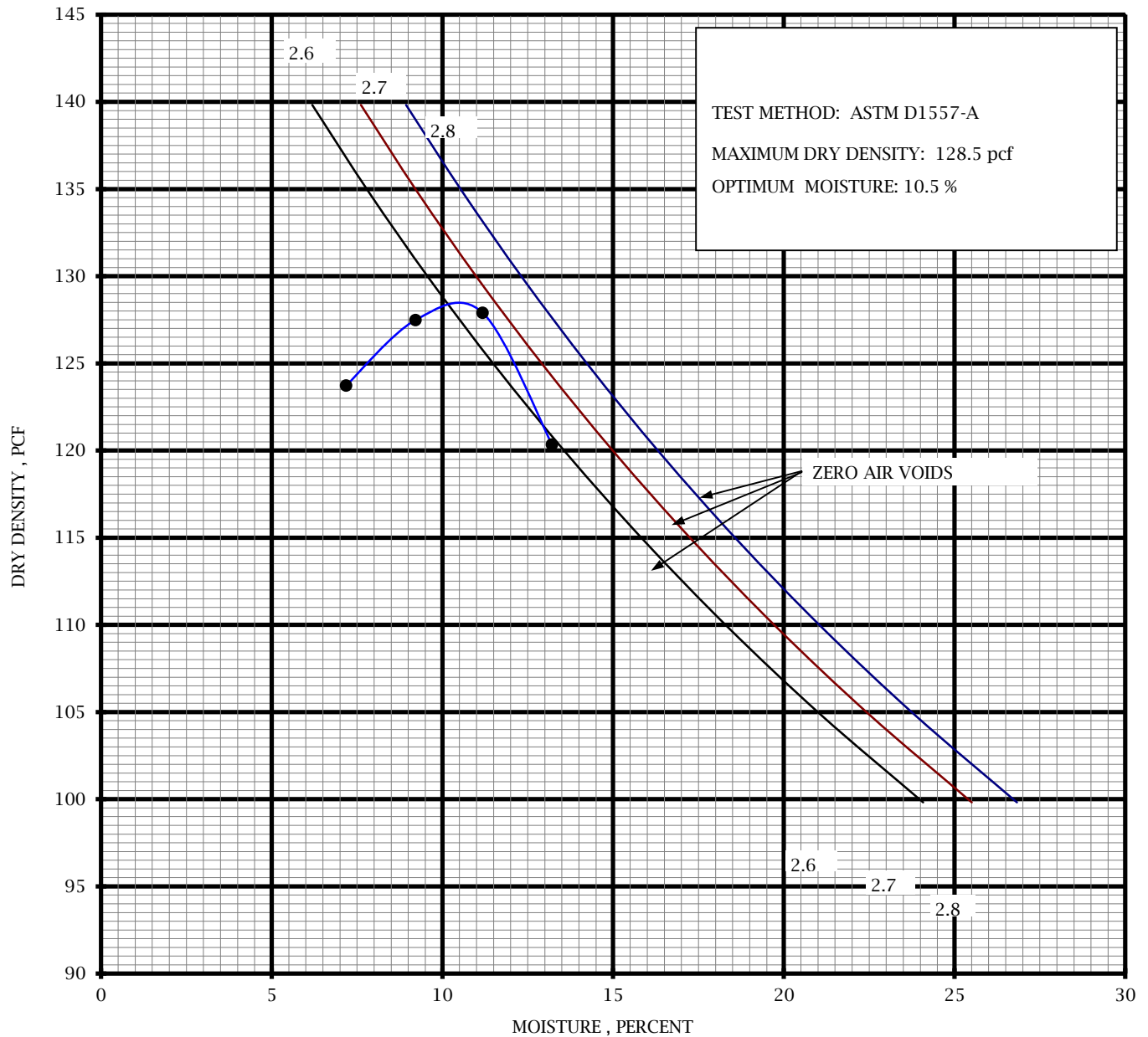
GEO_TARGET BORING LOGS.GPJ GEOTECHNICAL 08.GDT 5/6/21



MOISTURE DENSITY RELATIONSHIP ASTM D1557

700 22nd Street
Bakersfield, CA 93301
Ph: (661) 327-0671
Fax: (661) 324-4218

Project Name:	Davis Ave. Rehabilitation	Project Number:	G21-029-60B
Project Manager:	Adam Terronez	Lab Number:	B21-024
Sample Location:	Combined Bulk: B1,B2,B3,B4,B5	Sample Date:	2/17/2021
Sample Description:	SM: Silty Sand; Some gravel		
Tested By:	J. Buenrostro	Tested Date:	12/25/2021
		Sample By:	A. Becerra



Reviewed by: Ian Remotigue

Figure 4

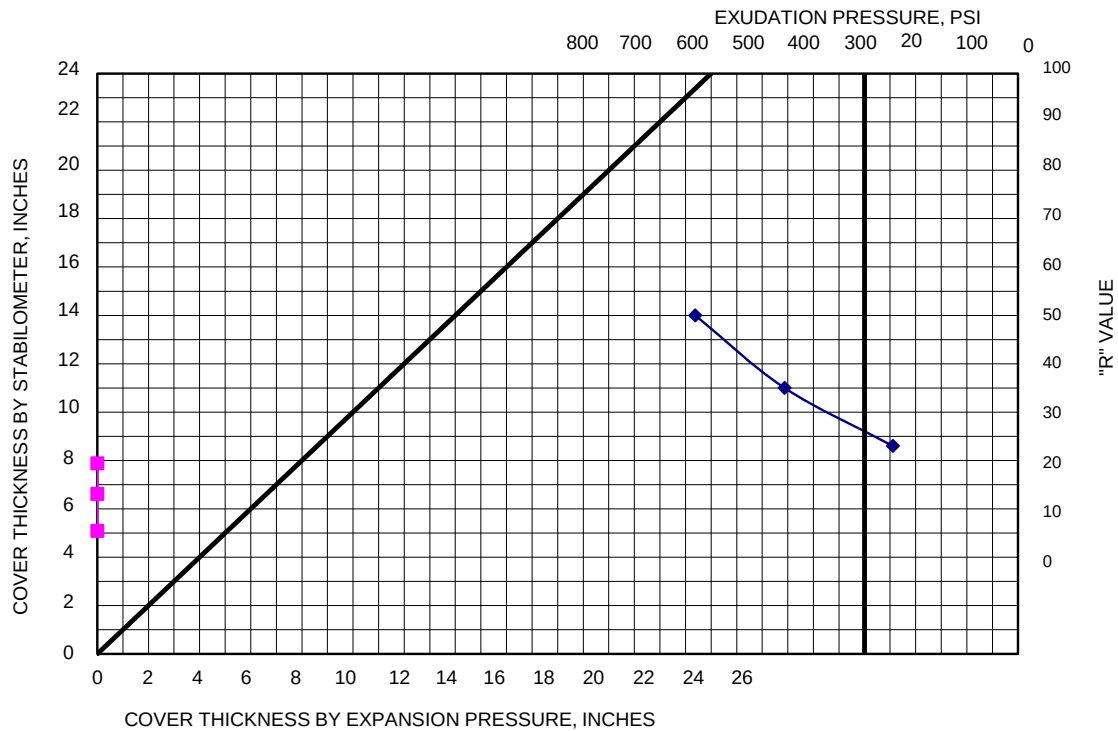


**Standard Test Methods for Resistance R-Value and
Expansion Pressure of Compacted Soil**
ASTM D-2844

700 22nd St.
Bakersfield, CA 93301
Ph: (661) 327-0670
Fax: (661) 324-4217

Project Name: Davis Ave. Rehabilitation Project
Project Number: G21-029-11B
Lab Tracking ID: B21-024
Sample Location: B-1 @ 0.0-3.0 Feet bgs

Sample Date: 2/17/2021
Test Date: 3/12/2021
Report Date: 3/15/2021
Tested By: ILT Remotigue



Sample Description: SM/SC: Silty Sand/Clayey Sand: Fine to Medium.

SPECIMEN	A	B	C
EXUDATION PRESSURE, LOAD (lb)	7923.6	5732.1	3072.1
EXUDATION PRESSURE, PSI	631	456	245
EXPANSION, * 0.0001 IN	0.0029	0.0029	0.0032
EXPANSION PRESSURE, PSF	0	0	0
STABILOMETER PH AT 2000 LBS	61	86	102
DISPLACEMENT	4.01	3.92	4.75
RESISTANCE VALUE "R"	50	35	23
"R" VALUE CORRECTED FOR HEIGHT	50	35	23
% MOISTURE AT TEST	10.5	11.5	12.5
DRY DENSITY AT TEST, PCF	122.9	122.2	114.0
"R" VALUE AT 300 PSI EXUDATION PRESSURE	26		
"R" VALUE BY EXPANSION PRESSURE TI = 4.0, GF=1.50	N/A		

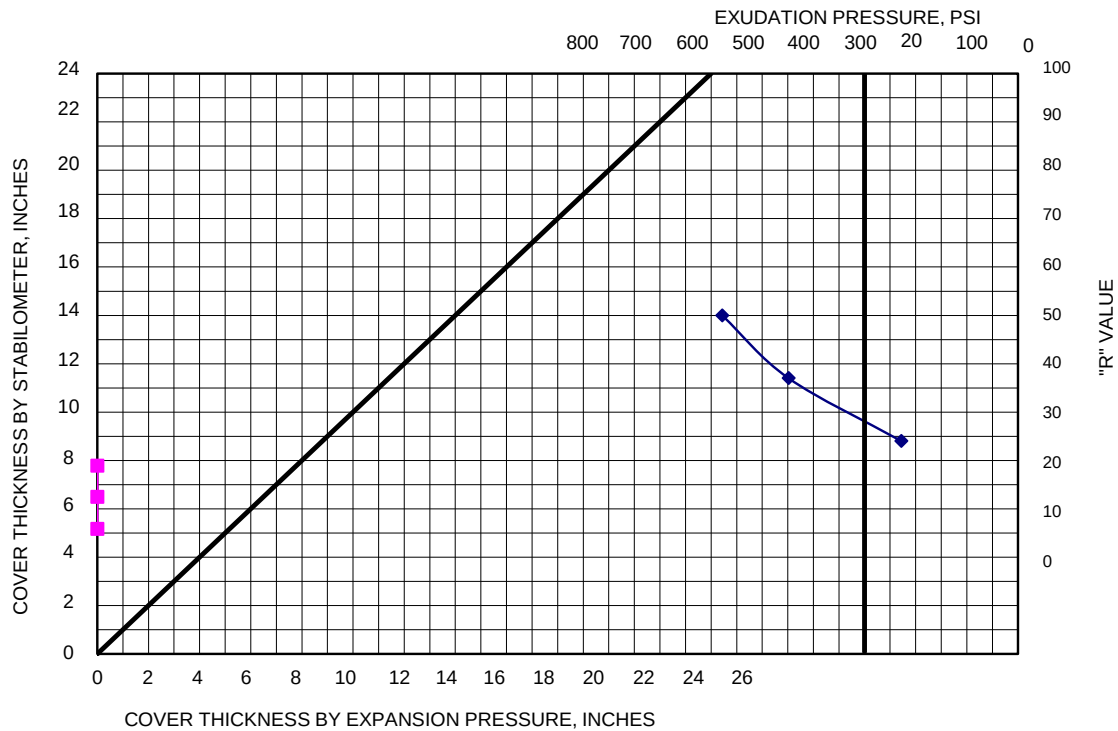


**Standard Test Methods for Resistance R-Value and
Expansion Pressure of Compacted Soil**
ASTM D-2844

700 22nd St.
Bakersfield, CA 93301
Ph: (661) 327-0670
Fax: (661) 324-4217

Project Name: Davis Ave. Rehabilitation Project
Project Number: G21-029-11B
Lab Tracking ID: B21-024
Sample Location: B-3 @ 0.0-3.0 feet bgs

Sample Date: 2/17/2021
Test Date: 3/12/2021
Report Date: 3/15/2021
Tested By: ILT Remotigue



Sample Description: SM/SC: Silty Sand/Clayey Sand: Fine to Medium.

SPECIMEN	A	B	C
EXUDATION PRESSURE, LOAD (lb)	7263.1	5632.2	2863.3
EXUDATION PRESSURE, PSI	578	448	228
EXPANSION, * 0.0001 IN	0.0027	0.0021	0.0030
EXPANSION PRESSURE, PSF	0	0	0
STABILOMETER PH AT 2000 LBS	62	84	100
DISPLACEMENT	4.02	3.92	4.75
RESISTANCE VALUE "R"	50	37	24
"R" VALUE CORRECTED FOR HEIGHT	50	37	24
% MOISTURE AT TEST	11.1	12.1	13.1
DRY DENSITY AT TEST, PCF	121.3	117.4	112.6
"R" VALUE AT 300 PSI EXUDATION PRESSURE	28		
"R" VALUE BY EXPANSION PRESSURE TI = 4.0, GF=1.50	N/A		

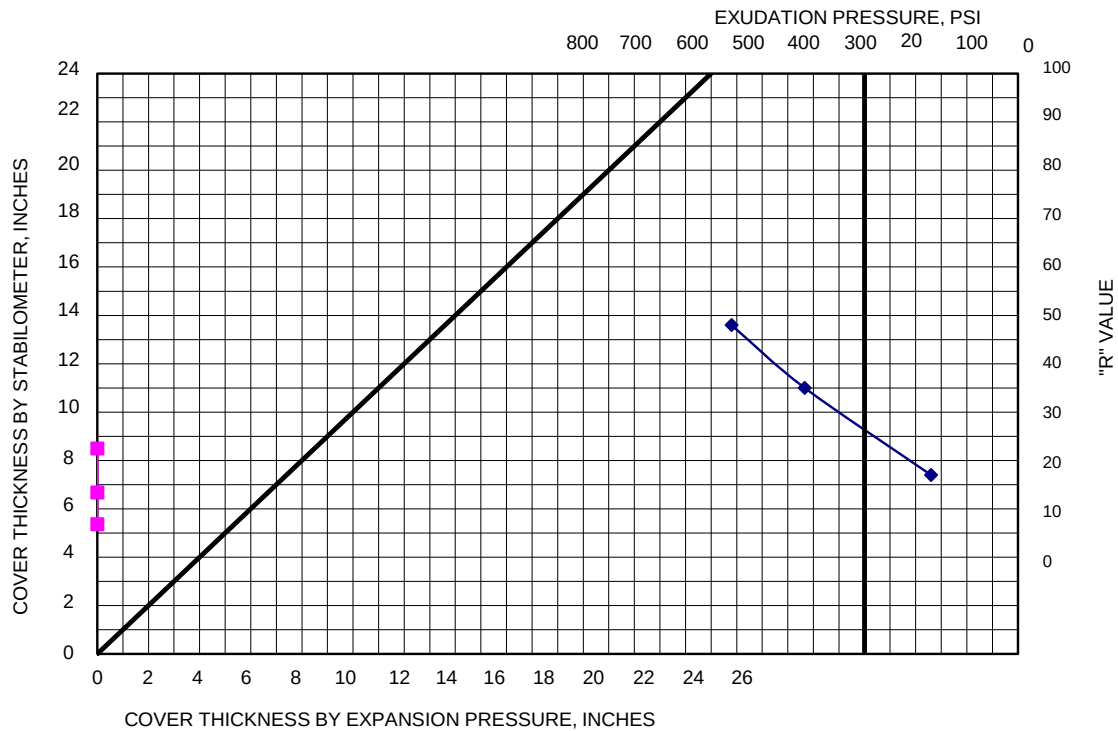


**Standard Test Methods for Resistance R-Value and
Expansion Pressure of Compacted Soil**
ASTM D-2844

700 22nd St.
Bakersfield, CA 93301
Ph: (661) 327-0670
Fax: (661) 324-4217

Project Name: Davis Ave. Rehabilitation Project
Project Number: G21-029-11B
Lab Tracking ID: B21-024
Sample Location: B-5 @ 0.0-5.0 feet bgs

Sample Date: 2/17/2021
Test Date: 3/12/2021
Report Date: 3/15/2021
Tested By: ILT Remotigue



Sample Description: SM/SC: Silty Sand/Clayey Sand: Fine to Medium.

SPECIMEN	A	B	C
EXUDATION PRESSURE, LOAD (lb)	7036.5	5236.3	2136.2
EXUDATION PRESSURE, PSI	560	417	170
EXPANSION, * 0.0001 IN	0.0027	0.0021	0.0030
EXPANSION PRESSURE, PSF	0	0	0
STABILOMETER PH AT 2000 LBS	65	87	115
DISPLACEMENT	4.02	3.92	4.75
RESISTANCE VALUE "R"	48	35	17
"R" VALUE CORRECTED FOR HEIGHT	48	35	17
% MOISTURE AT TEST	14.9	15.9	16.9
DRY DENSITY AT TEST, PCF	120.7	119.5	115.3
"R" VALUE AT 300 PSI EXUDATION PRESSURE	26		
"R" VALUE BY EXPANSION PRESSURE TI = 4.0, GF=1.50	N/A		



STABILIZED SOIL

700 22nd St.
Bakersfield, CA 93301
Ph: (661) 327-0671
Fax: (661) 324-4218

Project Name:	Davis Ave. Rehabilitation Project	Sampled By/Date:	A. Becerra / 2-17-2021
Project Number:	G21-029-11B	Delivered By-Date:	A. Becerra / 2-17-2021
Lab Tracking ID:	B21-024	Received By/Date:	ILTR / 2-17-2021
Sample Location:	Combined B1,B2,B3,B4,B5	Tested By/Date:	ILTR / 3-10-2021
Sample Description:	SM: Silty Sand; Brown; Fine to Coarse		

Compressive Strength			
Sample No.	1	2	3
Mix	3% Portland at Max Density	5% Portland at Max Density	7% Portland at Max Density
Height (0.25")	5.01	5.00	5.00
Sample Diameter (0.01")	4.00	4.00	4.00
Height Before Cap (0.1")	5.01	5.00	5.00
Height After Cap (0.1")	5.20	5.12	5.14
Area (0.01in ²)	12.56	12.56	12.56
Ultimate Load (lbs)	4,917.40	8,018.40	9,565.90
Compressive Strength	391.51	638.41	761.62
Corrected Strength (10psi)	392	638	762
Direction of Load with Respect to Plane of Placement	Axial	Axial	Axial
Age (days)	7	7	7
Moisture Condition	Moist	Moist	Moist

Remarks: The material was re-molded to 95% of the Maximum Dry Density of 128.5 pcf and Optimum moisture Content of 10.5% as per ASTM D1557-C

Reviewed by: Ian Remotigue



STABILIZED SOIL

700 22nd St.
Bakersfield, CA 93301
Ph: (661) 327-0671
Fax: (661) 324-4218

Project Name: Davis Ave. Rehabilitation Project
Project Number: G21-029-11B
Lab Tracking ID: B21-024
Sample Location: Combined B1,B2,B3,B4,B5
Sample Description: SM: Silty Sand; Brown; Fine to Coarse

Sampled By/Date: A. Becerra / 2-17-2021
Delivered By-Date: A. Becerra / 2-17-2021
Received By/Date: ILTR / 2-17-2021
Tested By/Date: ILTR / 3-17-2021

Compressive Strength			
Sample No.	1	2	3
Mix	3% Portland at Max Density	5% Portland at Max Density	7% Portland at Max Density
Height (0.25")	5.02	5.01	5.00
Sample Diameter (0.01")	4.00	4.00	4.00
Height Before Cap (0.1")	5.02	5.01	5.01
Height After Cap (0.1")	5.20	5.12	5.13
Area (0.01in ²)	12.56	12.56	12.56
Ultimate Load (lbs)	7,932.00	9,813.00	10,753.50
Compressive Strength	631.53	781.29	856.17
Corrected Strength (10psi)	632	781	856
Direction of Load with Respect to Plane of Placement	Axial	Axial	Axial
Age (days)	14	14	14
Moisture Condition	Moist	Moist	Moist

Remarks: The material was re-molded to 95% of the Maximum Dry Density of 128.5 pcf and Optimum moisture Content of 10.5% as per ASTM D1557-C

Reviewed by: Ian Remotigue



STABILIZED SOIL

700 22nd St.
Bakersfield, CA 93301
Ph: (661) 327-0671
Fax: (661) 324-4218

Project Name: Davis Ave. Rehabilitation Project
Project Number: G21-029-11B
Lab Tracking ID: B21-024
Sample Location: Combined B1,B2,B3,B4,B5
Sample Description: SM: Silty Sand; Brown; Fine to Coarse

Sampled By/Date: A. Becerra / 2-17-2021
Delivered By-Date: A. Becerra / 2-17-2021
Received By/Date: ILTR / 2-17-2021
Tested By/Date: ILTR / 3-24-2021

Compressive Strength			
Sample No.	1	2	3
Mix	3% Portland at Max Density	5% Portland at Max Density	7% Portland at Max Density
Height (0.25")	5.02	5.01	5.03
Sample Diameter (0.01")	4.00	4.00	4.00
Height Before Cap (0.1")	5.02	5.01	5.03
Height After Cap (0.1")	5.20	5.12	5.13
Area (0.01in ²)	12.56	12.56	12.56
Ultimate Load (lbs)	8,747.00	10,828.00	11,868.50
Compressive Strength	696.42	862.10	944.94
Corrected Strength (10psi)	696	862	945
Direction of Load with Respect to Plane of Placement	Axial	Axial	Axial
Age (days)	21	21	21
Moisture Condition	Moist	Moist	Moist

Remarks: The material was re-molded to 95% of the Maximum Dry Density of 128.5 pcf and Optimum moisture Content of 10.5% as per ASTM D1557-C

Reviewed by: Ian Remotigue

Cement Treatment Specification

This work consists of mixing in place material, cement and water, and spreading and compacting the mixture to the lines, grade and dimensions shown on the plans and as specified in these special provisions.

Prior to the first day of soil-cement production, it is advisable to perform a laboratory determination of the maximum dry density and optimum moisture content in order to have a preliminary indication of relative compaction. Determine the maximum density and optimum moisture content of the cement treated soil in accordance with ASTM D 1557. Following the first day's production, these values can be determined from field mixed soil-cement; samples to be taken after final mixing and prior to initial compaction.

The cement content of the completed mixture shall be 4 percent by weight of the in-place dry material. For estimating purposes, an in-place dry unit weight of material of 130 pcf should be used.

The Engineer may order an increase or decrease in the amount of specified cement content. If such increase or decrease is ordered, the compensation payable to the Contractor for cement treatment will be increased or decreased on the basis of the cost of cement per ton, f.o.b. the cement mill (including sales tax) plus the freight cost per ton, a cash or trade discount offered or available will be credited to the State notwithstanding the fact that the discount may not have been taken by the purchaser.

The Contractor shall furnish the Engineer satisfactory evidence of the cost of cement used on the project during the period involved in the ordered change in cement content. The Contractor shall maintain recorders that enable a clear determination of the cost of cement used during the period. The Contractor's records pertaining to the cost of cement shall be open to inspection or audit by Departmental representatives during the life of the contract and for no less than 3 years after completion thereof. The Contractor shall retain the records for that period.

If the price of cement as determined from the Contractor's records is, in the opinion of the Engineer, excessive or if the Contractor does not furnish satisfactory evidence of the cost of cement, the Engineer will determine the price to be the lowest wholesale cost at which cement would be available in the quantities concerned delivered to the job site, less discounts, available. No additional adjustment of compensation will be made for variations in the cost of work resulting from the change in the quantity of Portland cement.

The cement content of samples, after establishing the spread rate in the first 500 feet of each days operation, shall be taken a minimum of once every 1000 feet from the mixtures spread on the roadbed. The cement content of the samples shall not vary above or below the specified cement content more than one percent of the weight of the dry material as determined by California Test 228.

Cement shall be Type II Portland cement conforming to the provisions in Section 90-2.01A, "Cement," of the Standard Specifications. Mineral admixtures shall not be substituted for cement. Water shall conform to the provisions in Section 90-2.03, "Water," of the Standard Specifications. Material to be

treated shall be scarified and thoroughly broken up by means of equipment constructed and operated to leave an undisturbed plan at a uniform depth below the surface shown on the typical cross section. Precautions shall be taken to avoid forming furrows of loosened material below the referenced plane and to obtain a uniform condition of the material for the full width to be treated.

Material other than rock shall be broken up so that the broken pieces will pass a one-inch sieve. Before the addition of cement and water to the material, rocks greater than one inch in size shall be removed and the cost of removing rocks will be paid for an extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications.

The material shall then be shaped to conform to the typical sections, lines and grades as shown on the plans prior to the addition of cement. The blanket shall be limited to the size of the material that can be passed through the mixing machine at each operation.

Cement shall not be spread upon the prepared material more than 4 hours ahead of the road-mixing operation. Cement shall be uniformly spread by mechanical equipment in the amount necessary to meet the cement content requirements. The rate of cement spread per linear foot of windrow or blanket shall not vary more than 10 percent from the designated rate. No traffic other than the mixing equipment will be allowed to pass over the spread cement until after completion of mixing.

Mixing of the soils, cement, and water will be performed using a four-wheel drive rotary mixer (CMI RS-650, CAT 500 or equivalent). The mixing machine has equipment provisions for introducing water at the time of mixing through a metering/pump device and automatic elevation/depth controls.

The automatic depth controls shall be set to the Engineer's specified depth of treatment. The machine will be set into the ground on the grade and lowered to controlled depth. Using a standard measuring tape, the depth will be measured and compared to the Engineer's specified depth. The depth control may be adjusted, if necessary, to achieve the specified depth of treatment. The depth of treatment will be checked, throughout the day.

Phenolphthalein, a color-sensitive pH indicator solution, is used to indicate the presence of cement in the soil. The soil will attain a pinkish color with a pH on the order of 10. A trial test on the natural or untreated soil by spraying the solution onto the soils shall be performed. Typically there is no change in color with the application of the solution to the natural soil.

After an initial mix, a test pit through the treated layer and into the natural soil shall be excavated; the phenolphthalein solution shall be sprayed along the face of the excavation to determine the degree of uniformity and pulverization. The presence of streaks or pockets of cement or non-uniformity of color reaction is considered evidence of inadequate mixing. The depth of treatment shall be confirmed.

The resulting mixture shall be uniform and more than one pass of the equipment through the material may be required. If equipment is used that requires more than one pass and cement is applied in a dry state, at least one pass shall be made before mixing water is added to the material. The treated mixture

shall be spread to the required planned width, grade and cross section. The mixture may be spread and compacted in one layer.

Cement treated material shall be compacted to a relative compaction of not less than 90 percent. In-place density of cement treated soils may be controlled relative to the wet density of the laboratory determined moisture density relation. Because moisture is a critical element in the stabilization process, testing by this method allows for relative compaction to be achieved at higher moisture contents. Remove material that does not meet density requirements. Remove areas that lose required stability, compaction or finish. Replace with cement-treated mixture and compact and test in accordance with density control methods.

The Engineer may accept the section if no more than 1 of the 5 most recent density tests is below the specified density and the failing test is no less than 93 percent relative compaction.

No more than 2 hours shall elapse between the time water is added to the material and cement and the time of completion of initial rolling. No more than 3 hours shall elapse between the time water is added to the material and cement and the time of completion of final compaction after trimming. Compacting equipment shall adequate to produce the required compaction within the operation time limits specified.

Rolling shall be performed in such a manner that the finished surface shall be true to the required grade and cross section within the surface tolerance specified. Areas inaccessible to rollers shall be compacted to the required compaction by other means satisfactory to the Engineer.

The finished surface of cement treated material shall not vary more than 0.08-foot above or below grade established by the Engineer. The thickness of cement treated materials shall not be more than 0.05-foot thinner than the planned thickness at any point.

Areas where cement treatment has been performed shall be cured in conformance with the provisions in Section 90-7, "Curing Concrete," of the Standard Specification, for the first 36 to 48 hours prior to microcracking. Water used to keep the surface moist shall be applied without driving equipment over the cement treated material.

Microcracking operations shall commence after 36 to 48 hours of the moist curing period. Microcracking of the concrete treated material shall be accomplished by using a 12-ton steel-wheel vibratory roller, traveling at a speed of approximately 2 mph and vibrating at maximum amplitude (or as directed by the Project Engineer). The section shall have 100% coverage exclusive of the outside 1 foot so as to induce minute cracks in the concrete treated material. Additional passes of the steel roller may be required to achieve the desired crack pattern as determined by the Project Engineer. It is anticipated that the roller will have to make between 1 to 4 passes to achieve the required microcracking.

After microcracking, areas where cement treatment has been performed shall be cured as provided for cement treated base in Section 27-1.10, "Curing," of the Standard Specifications. No equipment or

traffic shall be permitted on the cement treated material during the first 3 days after applying the curing compound, unless otherwise permitted by the Engineer.

Full compensation for applying a curing compound, in curing areas where cement treatment has been performed shall be considered as included in the contract price paid per square yard for cement treatment and no separate payment will be made therefor. Cement treatment will be measured by the square yard. The area in square yards will be determined from measurement of the finished surface of cement treated material. The measurement will be made parallel to the ground slope.

The contract price paid per square yard for cement treatment for the thickness specified shall include full compensation for furnishing all labor, materials (including cement in the amount specified), tools, equipment, and incidentals, and for doing all the work involved in mixing, spreading, compacting cement treatment, and microcracking, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.