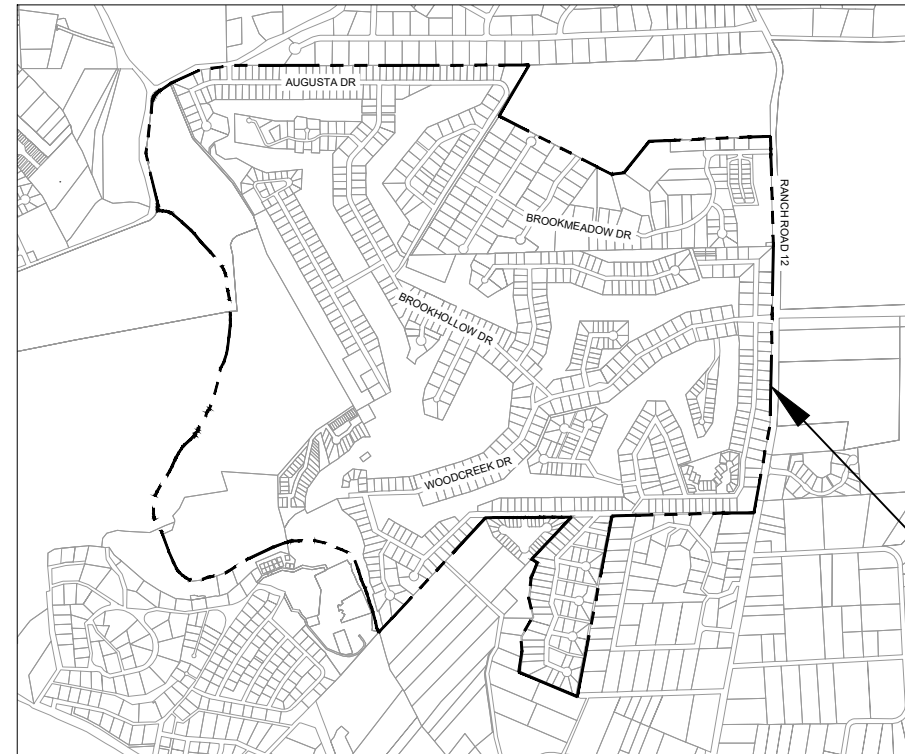


# CITY OF WOODCREEK

## 2024 SAFETY ENHANCEMENT PROGRAM

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**PROJECT LIMITS**  
(VARIOUS LOCATIONS WITHIN CITY LIMITS)

**CITY MAYOR:**  
JEFF RASCO

**CITY COUNCIL MEMBERS:**  
PLACE 1, MAYOR PRO TEM - DEBRA HINES  
PLACE 2 - LINNEA R. BAILEY  
PLACE 3 - CHRYS GRUMMERT  
PLACE 4 - BOB HAMBRICK  
PLACE 5 - KRISTA RICHARDSON

**CITY MANAGER:**  
JIM BURTON

THE SIZE, TYPE, LOCATION AND DEPTH OF EXISTING UTILITIES AS SHOWN HEREIN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH RESULT FROM THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
COVER SHEET

JOB:	154-102
DATE:	2024/07/17
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SHEET:  
**C0.00**

**CITY OF WOODCREEK**

**2024 SAFETY ENHANCEMENT PROGRAM  
GENERAL NOTES**

**GENERAL DESCRIPTION OF THE SCOPE OF WORK**

THE SCOPE OF WORK GENERALLY INVOLVES DRIVEWAY PAVEMENT RECONSTRUCTION, ROAD OVERLAY, INSTALLATION OF SPEED LIMIT SIGNS AND SPEED CUSHIONS, AND THE MODIFICATION OF A GUARDRAIL WITHIN THE CITY LIMITS OF WOODCREEK, TEXAS.

**PROJECT LIMITS AND AREA**

THE PROJECT LIMITS CONSIST OF THE PUBLIC STREET AND RIGHT-OF-WAY LOCATED IN WOODCREEK, TEXAS.

THE PROJECT LIMITS INCLUDE AREAS WITHIN THE EXISTING STREET RIGHT-OF-WAY NEEDED TO PARK AND OPERATE THE EQUIPMENT.

THE CONTRACTOR SHALL NOT WORK OUTSIDE OF THE RIGHT-OF-WAY.

THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE EXISTING CURB, PARKWAY, DRIVEWAYS, AND PRIVATE PROPERTY OUTSIDE OF THE PROJECT LIMITS.

**NOTIFICATIONS**

THE CONTRACTOR SHALL NOTIFY THE CITY OF WOODCREEK AND THE ENGINEER 72 HOURS BEFORE STARTING CONSTRUCTION.

THE CONTRACTOR SHALL PROVIDE THE START AND END DATES FOR CONSTRUCTION, ANY SCHEDULE CHANGES, AND ADDITIONAL INFORMATION FOR COORDINATION PURPOSES.

**REGULATIONS**

THE CONTRACTOR SHALL CONDUCT ALL CONSTRUCTION OPERATIONS ACCORDING TO APPLICABLE STATE STATUTES AND U.S. OSHA REGULATIONS.

THE CONTRACTOR MAY OBTAIN INFORMATION AND RELATED REFERENCE MATERIALS FROM OSHA AT 1033 LA POSADA DR., SUITE 375, AUSTIN, TEXAS 78752-3832.

ALL CONSTRUCTION SHALL COMPLY WITH THE TEXAS ADMINISTRATIVE CODE, TCEQ, AND ANY OTHER GOVERNING ENTITY, ORDINANCES, OR CODES.

**JOB SITE RESPONSIBILITY**

THE CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND THE PROTECTION OF PROPERTY.

THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO REGULAR WORKING HOURS.

**UTILITIES**

THE CONTRACTOR SHALL USE ESTABLISHED SAFETY PRACTICES WHEN WORKING NEAR UTILITIES.

THE CONTRACTOR SHALL INFORM AND CONSULT WITH THE APPROPRIATE UTILITY OWNERS BEFORE WORK BEGINS, ALLOWING THEM ENOUGH TIME TO IDENTIFY, LOCATE, REROUTE, OR MAKE OTHER ADJUSTMENTS TO UTILITY LINES.

THE SIZE, LOCATION, AND DEPTH OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY.

THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES' EXACT HORIZONTAL AND VERTICAL LOCATIONS BEFORE COMMENCING WORK.

ALL EXISTING UTILITIES SHALL REMAIN IN PLACE AND STAY IN SERVICE UNLESS OTHERWISE INDICATED ON THE PLANS.

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ALL UNDERGROUND AND ABOVE-GROUND UTILITIES IN THE PROJECT AREA.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF UTILITY CONFLICTS.

THE ENGINEER WILL DECIDE WHETHER TO ADJUST UTILITIES OR ADJUST THE WORK TO ELIMINATE OR LESSEN THE CONFLICT.

UNLESS OTHERWISE SHOWN ON THE PLANS, THE ENGINEER WILL MAKE NECESSARY ARRANGEMENTS WITH THE UTILITY OWNER WHEN UTILITY ADJUSTMENTS ARE REQUIRED.

THE CONTRACTOR SHALL USE WORK PROCEDURES THAT PROTECT UTILITIES OR APPURTENANCES THAT REMAIN IN PLACE DURING CONSTRUCTION.

THE CONTRACTOR SHALL CONDUCT WORK WITH MINIMUM DISTURBANCE OF EXISTING UTILITIES AND COORDINATE WORK IN OR NEAR UTILITIES WITH THE UTILITY OWNERS.

THE CONTRACTOR SHALL COOPERATE WITH UTILITIES TO REMOVE AND REARRANGE UTILITIES TO AVOID SERVICE INTERRUPTION OR DUPLICATE WORK BY THE UTILITIES.

THE CONTRACTOR SHALL NOT DISRUPT UTILITY SERVICES TO CUSTOMERS IN THE PROJECT AREA UNLESS THE OUTAGE HAS BEEN COORDINATED AND SCHEDULED WITH THE APPROPRIATE UTILITY PROVIDER(S) AND CUSTOMERS.

THE CONTRACTOR SHALL PROVIDE 24-HOUR EMERGENCY CONTACT INFORMATION TO AREA UTILITY COMPANIES.

THE CONTRACTOR SHALL ALLOW UTILITIES ACCESS TO THE RIGHT OF WAY.

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE APPROPRIATE UTILITY COMPANIES OF SERVICE INTERRUPTIONS RESULTING FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES AND COOPERATE WITH UTILITIES UNTIL SERVICE IS RESTORED. (CONTINUED NEXT PAGE)

THE CONTRACTOR SHALL ALWAYS MAINTAIN ACCESS TO FIRE HYDRANTS.

THE CONTRACTOR SHALL AVOID CUTTING OR DAMAGING UNDERGROUND UTILITY LINES TO REMAIN IN PLACE AND PROMPTLY NOTIFY THE UTILITY COMPANY IF DAMAGE OCCURS.

THE CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITY APPURTENANCES IN THE STREET PAVEMENT, INCLUDING MANHOLES AND VALVE BOXES.

THE CONTRACTOR SHALL REPAIR AT NO ADDITIONAL COST TO THE OWNER ANY UTILITY APPURTENANCES DAMAGED DURING OVERLAY, PAVEMENT REPAIR, AND OTHER CONSTRUCTION OPERATIONS.

THE CONTRACTOR SHALL INSTALL SOD AT NO ADDITIONAL COST TO THE OWNER FOR ANY DISTURBED AREAS.

**CONSTRUCTION WATER**

THE CONTRACTOR SHALL OBTAIN A WATER SUPPLY FOR CONSTRUCTION PURPOSES AT THEIR COST.

THE CONTRACTOR MAY ARRANGE FOR A TEMPORARY WATER METER FROM THE WATER PROVIDER.

**HAUL ROUTE PROTECTION**

THE CONTRACTOR SHALL USE WHATEVER MEANS TO PREVENT SOIL AND OTHER FOREIGN MATERIALS FROM LITTERING PUBLIC STREETS USED TO HAUL MATERIALS TO AND FROM THIS PROJECT SITE.

THE CONTRACTOR SHALL REMOVE SOIL, DIRT, MUD, AND OTHER MATERIALS FROM THE PUBLIC STREETS TO PREVENT HAZARDOUS CONDITIONS AND PROTECT THE TRAVELING PUBLIC.

**FIELD CHANGES**

THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY IF ANY FIELD CHANGES ARE REQUIRED.

**WORKING HOURS**

THE CONTRACTOR'S WORKING HOURS SHALL BE MONDAY THROUGH FRIDAY FROM 7 AM TO 6 PM. THE CONTRACTOR SHALL NOT WORK WEEKENDS OR HOLIDAYS UNLESS APPROVED BY CITY OF WOODCREEK.

**STORMWATER**

THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AND NOT BLOCK STORMWATER.



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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
GENERAL NOTES SHT 1

JOB:	154-102
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**CONSTRUCTION SPECIFICATIONS**

THE CONTRACTOR SHALL PERFORM ALL WORK AND CONSTRUCT THE IMPROVEMENTS PER TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES (ADOPTED BY TXDOT NOVEMBER 1, 2014) AND ANY APPLICABLE SPECIAL PROVISIONS AND SPECIFICATIONS.

**ITEM 100 - PREPARING ROW**

THIS SPECIFICATION SHALL GOVERN AND INCLUDE THE PREPARATION OF THE PROJECT SITE FOR CONSTRUCTION.

**ITEM 105 - REMOVING TREATED AND UNTREATED BASE AND ASPHALT PAVEMENT**

THE CONTRACTOR SHALL REMOVE THE EXISTING ASPHALT AND BASE MATERIAL PER THE LIMITS SHOWN ON THE PLANS TO A DEPTH NO GREATER THAN THE EXISTING SUBGRADE. THE CONTRACTOR SHALL NOT STOCK PILE REMOVED MATERIALS AND SHALL HAUL OFF REMOVED MATERIALS IMMEDIATELY.

**ITEM 247 - FLEXIBLE BASE**

THE CONTRACTOR SHALL FURNISH AND INSTALL TYPE A, GRADE I-II FLEXIBLE BASE MATERIAL PER DEPTH SHOWN ON PLANS.

**ITEM 500 - MOBILIZATION**

**ITEM 502 - BARRICADES, SIGNS, AND TRAFFIC HANDLING**

THE CONTRACTOR SHALL MAINTAIN ONE-LANE TWO-WAY TRAFFIC USING FLAGGERS AT ALL TIMES DURING ACTIVE CONSTRUCTION AND WORKING HOURS. TWO-WAY TRAFFIC MUST BE MAINTAINED WHEN THE CONTRACTOR IS NOT ACTIVELY WORKING ON-SITE.

THE CONTRACTOR SHALL PROVIDE ADDITIONAL TRAFFIC CONTROL SIGNS AT ALL INTERSECTIONS TO IDENTIFY ROAD WORK AHEAD.

**ITEM 506 - TEMPORARY EROSION, SEDIMENTATION, AND WATER POLLUTION PREVENTION AND CONTROLS**

SEE PLANS.

**ITEM 644 - SMALL ROADSIDE SIGN ASSEMBLIES**

SEE PLANS.

**ITEM 666 - RETROREFLECTORIZED PAVEMENT MARKINGS**

TYPE II TRAFFIC PAINT SHALL BE INSTALLED AS A SEALER/BASE COAT BEFORE INSTALLING TYPE I HOT-APPLIED THERMOPLASTIC.

**SPECIAL SPECIFICATION 3076 - DENSE-GRADED HOT-MIX ASPHALT**

**HMAC SHALL BE INSTALLED WHERE INDICATED ON THE PLANS, VARIOUS DRIVEWAYS AND OVERLAY ON DEERFIELD DRIVE**

HMAC SHALL BE TYPE AND DEPTH AS SPECIFIED ON PLANS.

TACK COAT SHALL BE CBC-1H APPLIED AT A RATE OF 0.10 GAL/SY.

MODIFICATIONS ADDED TO SPECIFICATION ARE AS FOLLOWS:

**PARAGRAPH 5**

1. HOT MIX WILL BE MEASURED BY THE SQUARE YARD.

**PARAGRAPH 6**

1. PAYMENT WILL BE PAID FOR AT THE UNIT BID PRICE PER SQUARE YARD.  
2. TACK COAT WILL BE SUBSIDIARY TO THIS ITEM.

**SPECIAL SPECIFICATION - INSTALL PROVIDED DIGITAL SPEED SIGNS**

SEE PLAN SHEETS FOR LOCATIONS. THE GOVERNING SPECIFICATION FOR THIS ITEM IS TXDOT ITEM 644 - SMALL ROADSIDE SIGN ASSEMBLIES.

THE CITY OF WOODCREEK WILL PROVIDE THE SOLAR POWERED DIGITAL SPEED SIGNS. THE CONTRACTOR SHALL FULLY FURNISH ALL POSTS, HARDWARE, BASE ETC TO APPROPRIATELY MOUNT THE PROVIDED SIGNS.

**SPECIAL SPECIFICATION - INSTALL PROVIDED SIGNS**

THE CITY OF WOODCREEK HAS VARIOUS SMALL SIGNS TO BE INSTALLED, LOCATIONS WILL BE DETERMINED DURING CONSTRUCTION. THE GOVERNING SPECIFICATION FOR THIS ITEM IS TXDOT ITEM 644 - SMALL ROADSIDE SIGN ASSEMBLIES.

THE CITY OF WOODCREEK WILL PROVIDE VARIOUS SMALL SIGNS. THE CONTRACTOR SHALL FULLY FURNISH ALL POSTS, HARDWARE, BASE ETC. TO APPROPRIATELY MOUNT THE PROVIDED SIGNS.

**SPECIAL SPECIFICATION - GUARDRAIL MODIFICATION**

SEE PLANS. THE GOVERNING SPECIFICATIONS FOR THIS WORK ARE LISTED BELOW:  
TXDOT ITEM 540 - METAL BEAM GUARD FENCE  
TXDOT ITEM 542 - REMOVING METAL BEAM GUARD FENCE

ALL WORK INCLUDING REMOVING THE EXISTING GUARD FENCE, PORTABLE RESTROOM RELOCATION, AND INSTALLATION SHALL BE SUBSIDIARY TO THIS ITEM. THIS WORK WILL BE PAID BY THE LUMP SUM, AND WILL INCLUDE ALL NECESSARY WORK FOR FINAL COMPLETION.

**SPECIAL SPECIFICATION - SPEED CUSHION**

COMPLETE IN PLACE TO INCLUDE ALL NECESSARY FURNISHINGS FOR INSTALLATION PER DETAIL INCLUDED IN PLANS AND MANUFACTURER INSTALLATION RECOMMENDATIONS. MARKING PATTERN IS TO BE SC-070603-M. THIS WORK WILL BE PAID BY EACH SPEED CUSHION.

**SPECIAL SPECIFICATION - BLADE LEVEL-UP WITH ASPHALT CONCRETE**

SEE PLANS.

**SUBMITTALS**

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING SUBMITTALS TO THE ENGINEER FOR APPROVAL FOR ALL MATERIALS FOR ITEMS SPECIFIED.



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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
GENERAL NOTES SHT 2

JOB: 154-102

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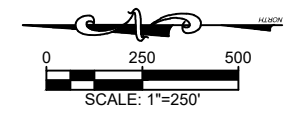
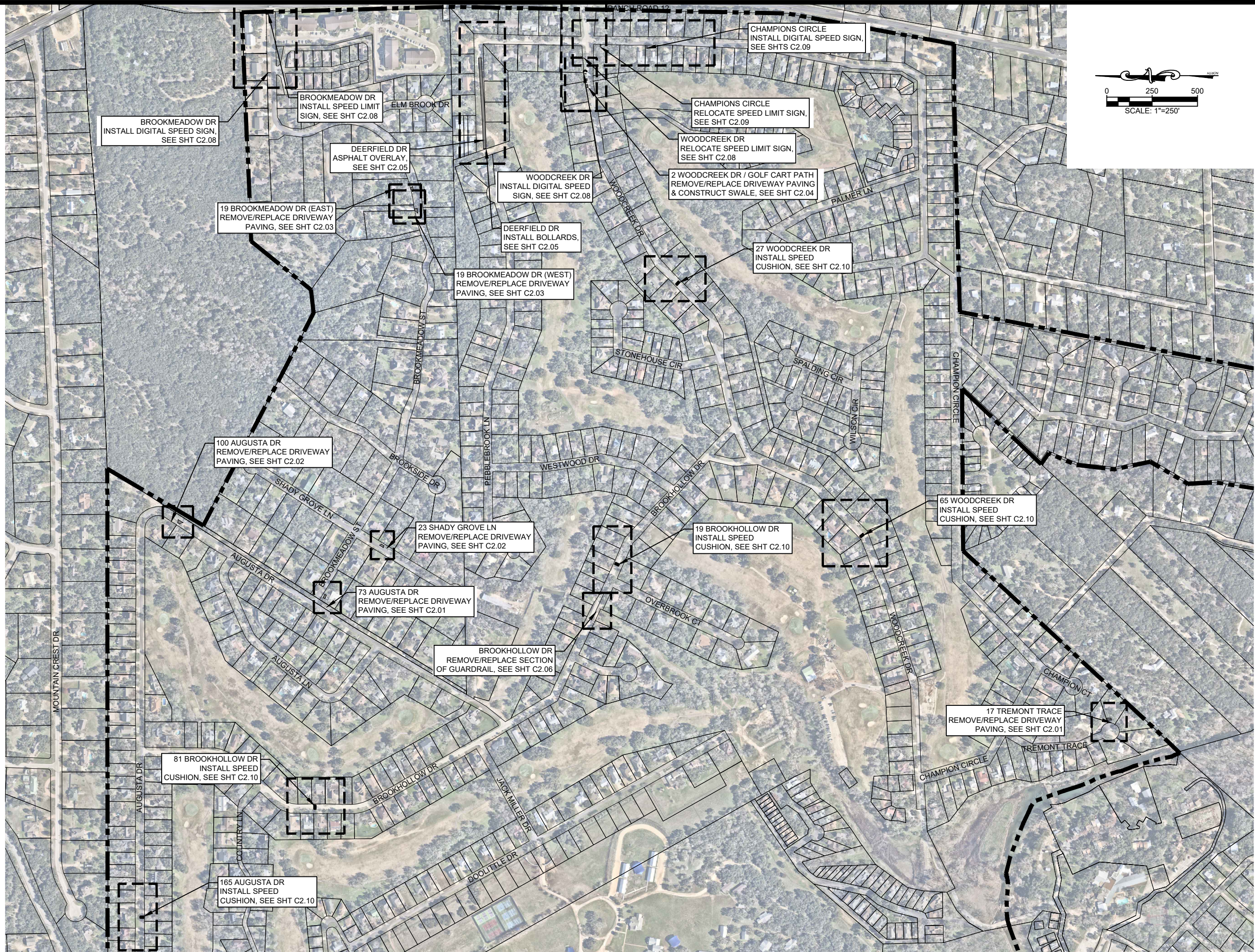
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CITY OF WOODCREEK  
 2024 SAFETY ENHANCEMENT PROGRAM  
**OVERALL (P)SITE PLAN**

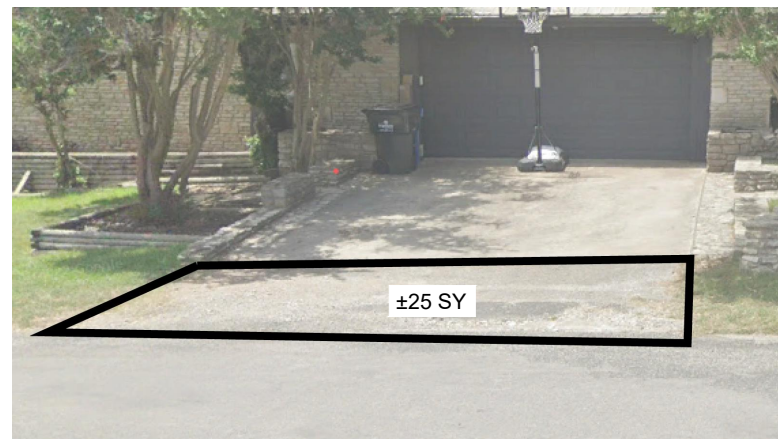
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**17 TREMONT TRCE - FRONT STREET VIEW**  
SCALE: N.T.S.



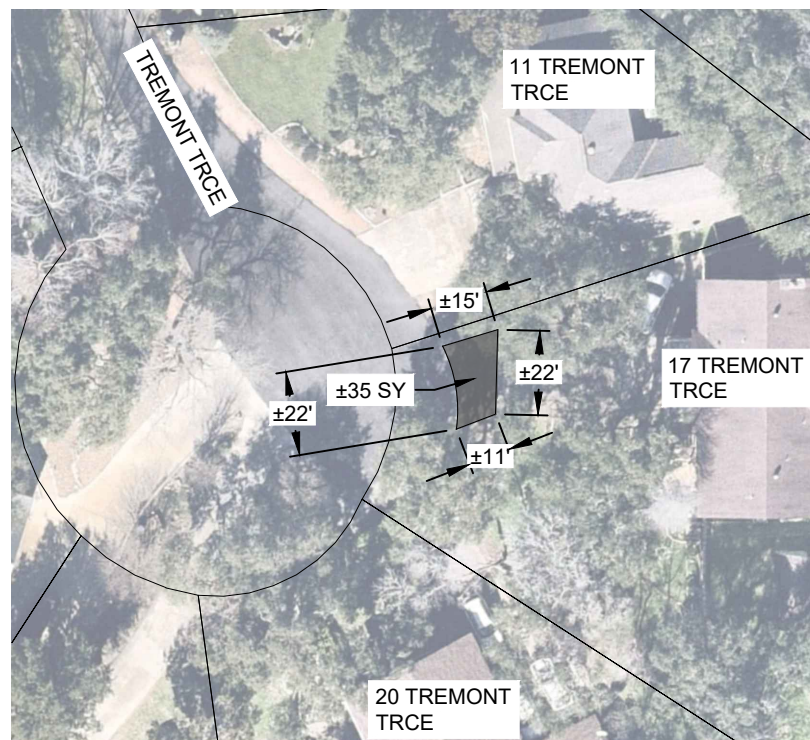
**73 AUGUSTA DR - FRONT STREET VIEW**  
SCALE: N.T.S.

**LEGEND**

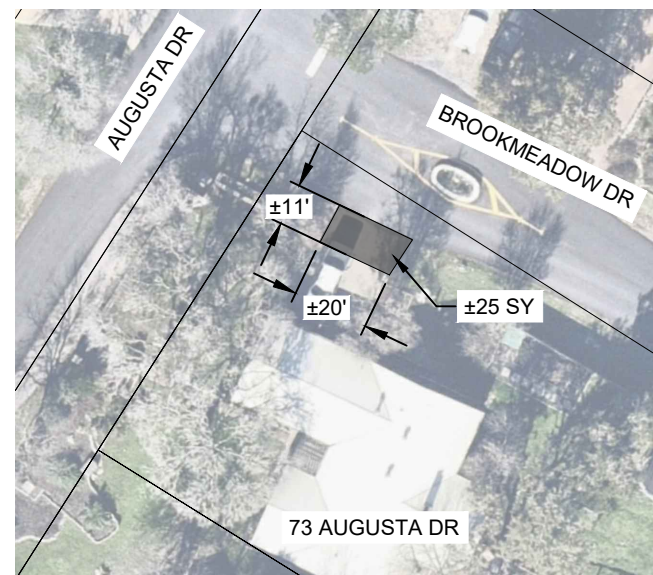
■ DRIVEWAY PAVING SECTION

**NOTES:**

1. CONTRACTOR SHALL REMOVE 2" OF DRIVEWAY MATERIAL (ASPHALT AND BASE) AND REMOVE FROM THE SITE.
2. THE CONTRACTOR SHALL REPLACE EXISTING ASPHALT WITH 2" OF HMAC (TXDOT SPEC ITEM 3076).
3. THE CONTRACTOR SHALL MATCH EXISTING GRADES OF EXISTING ASPHALT IN AREAS BEING REPAVED AND MAINTAIN EXISTING DRAINAGE PATTERNS.
4. DIMENSIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONCERNS OR DISCREPANCIES.



**17 TREMONT TRCE - AERIAL PLAN VIEW**  
SCALE: 1" = 50'



**73 AUGUSTA DR - AERIAL PLAN VIEW**  
SCALE: 1" = 50'

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**CITY OF WOODCREEK**  
**2024 SAFETY ENHANCEMENT PROGRAM**  
**DRIVEWAY PAVING LAYOUTS**  
**SHT 1**

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**100 AUGUSTA DR - FRONT STREET VIEW**  
SCALE: N.T.S.



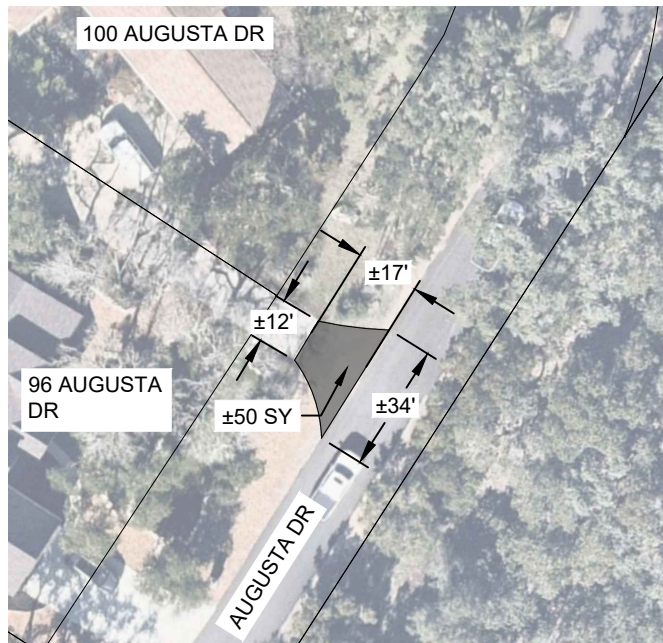
**23 SHADY GROVE LN - FRONT STREET VIEW**  
SCALE: N.T.S.

LEGEND

 DRIVEWAY PAVING SECTION

NOTES:

1. CONTRACTOR SHALL REMOVE 2" OF DRIVEWAY MATERIAL (ASPHALT AND BASE) AND REMOVE FROM THE SITE.
2. THE CONTRACTOR SHALL REPLACE EXISTING ASPHALT WITH 2" OF HMAC (TxDOT SPEC ITEM 3076).
3. THE CONTRACTOR SHALL MATCH EXISTING GRADES OF EXISTING ASPHALT IN AREAS BEING REPAVED AND MAINTAIN EXISTING DRAINAGE PATTERNS.
4. DIMENSIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONCERNS OR DISCREPANCIES.



**100 AUGUSTA DR - AERIAL PLAN VIEW**  
SCALE: 1" = 50'



**23 SHADY GROVE LN - AERIAL PLAN VIEW**  
SCALE: 1" = 40'

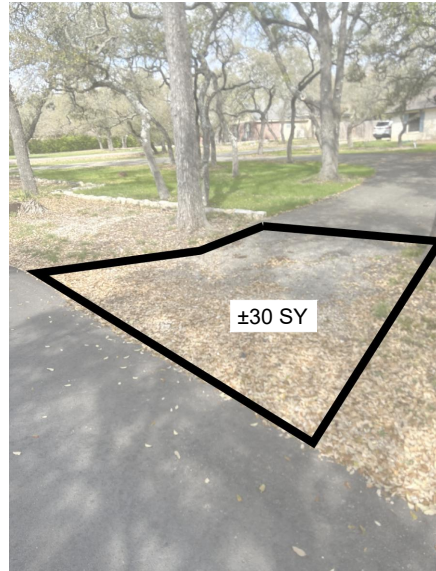
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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
DRIVEWAY PAVING LAYOUTS  
SHT 2

JOB:	154-102
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**19 BROOKMEADOW DR (WEST) - FRONT STREET VIEW**  
SCALE: N.T.S.



**19 BROOKMEADOW DR (EAST) - FRONT STREET VIEW**  
SCALE: N.T.S.

**LEGEND**

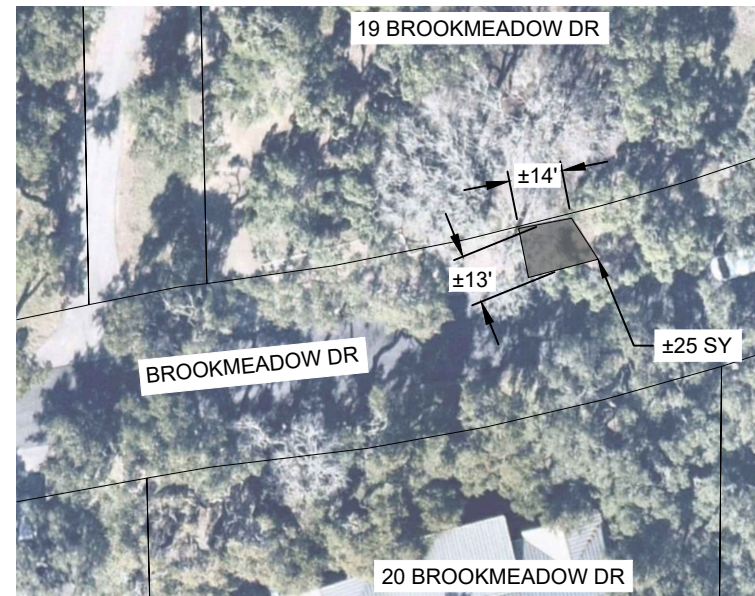
 **DRIVEWAY PAVING SECTION**

**NOTES:**

1. CONTRACTOR SHALL REMOVE 2" OF DRIVEWAY MATERIAL (ASPHALT AND BASE) AND REMOVE FROM THE SITE.
2. THE CONTRACTOR SHALL REPLACE EXISTING ASPHALT WITH 2" OF HMAC (TXDOT SPEC ITEM 3076).
3. THE CONTRACTOR SHALL MATCH EXISTING GRADES OF EXISTING ASPHALT IN AREAS BEING REPAVED AND MAINTAIN EXISTING DRAINAGE PATTERNS.
4. DIMENSIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONCERNS OR DISCREPANCIES.



**19 BROOKMEADOW DR (WEST) - AERIAL PLAN VIEW**  
SCALE: 1" = 50'



**19 BROOKMEADOW DR (EAST) - AERIAL PLAN VIEW**  
SCALE: 1" = 50'

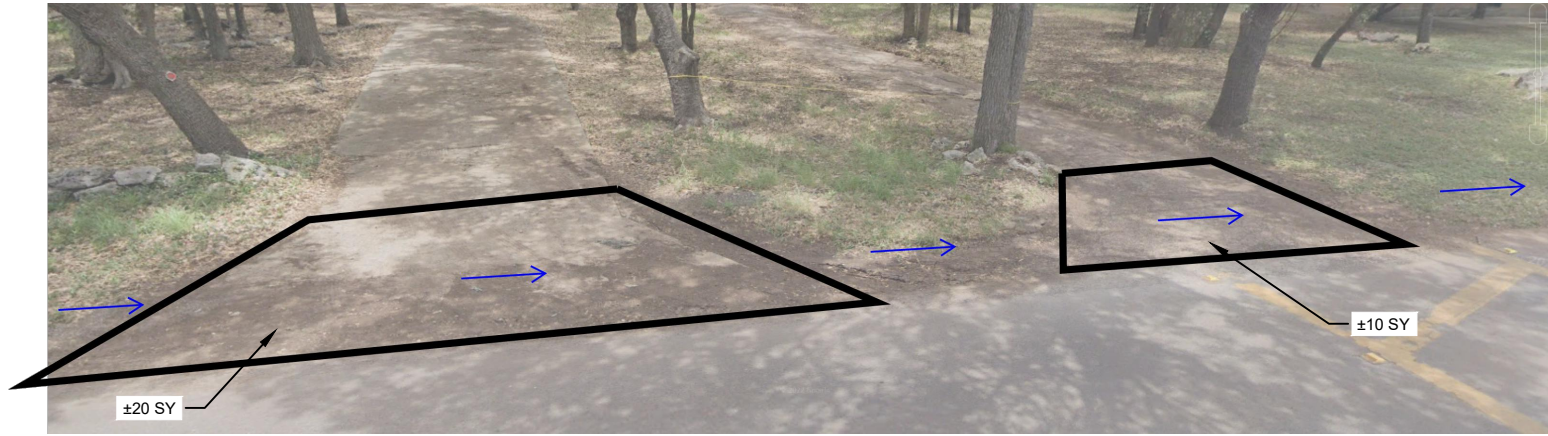
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**CITY OF WOODCREEK**  
**2024 SAFETY ENHANCEMENT PROGRAM**  
**DRIVEWAY PAVING LAYOUTS**  
**SHT 3**

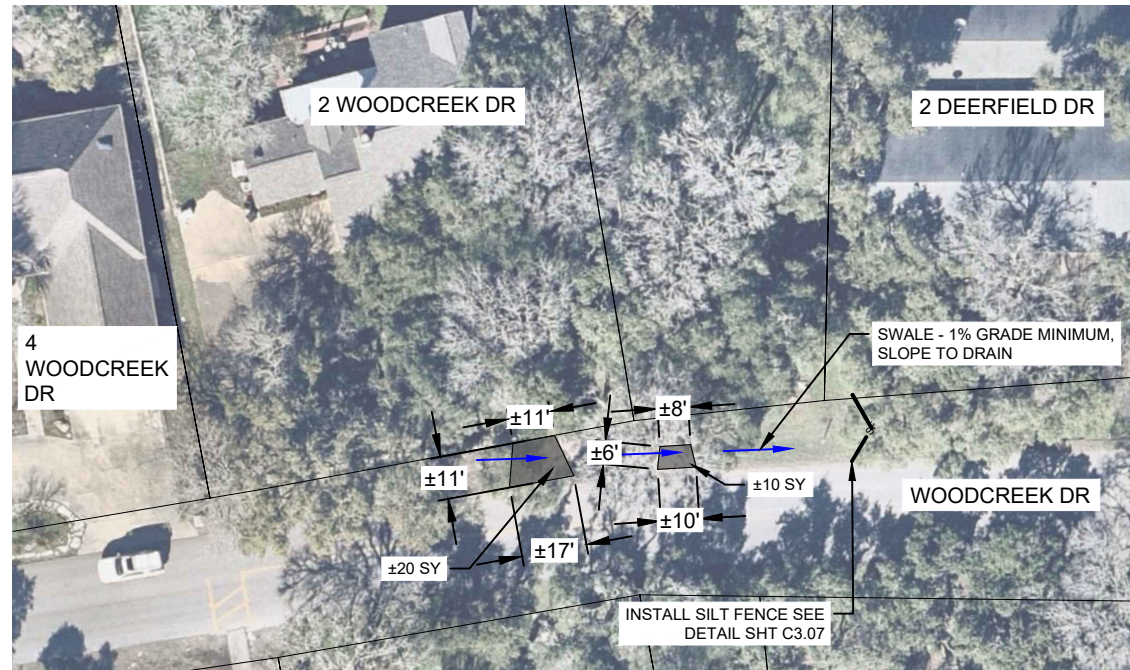
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DELTA	DESCRIPTION





**2 WOODCREEK DR / GOLF CART PATH - FRONT STREET VIEW**  
SCALE: N.T.S.



**2 WOODCREEK DR / GOLF CART PATH - AERIAL PLAN VIEW**  
SCALE: 1" = 50'

- LEGEND
- DRIVEWAY PAVING SECTION
  - SF SILT FENCE

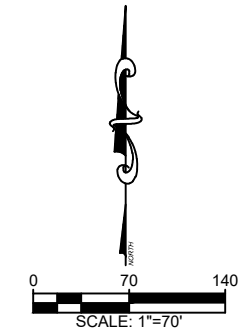
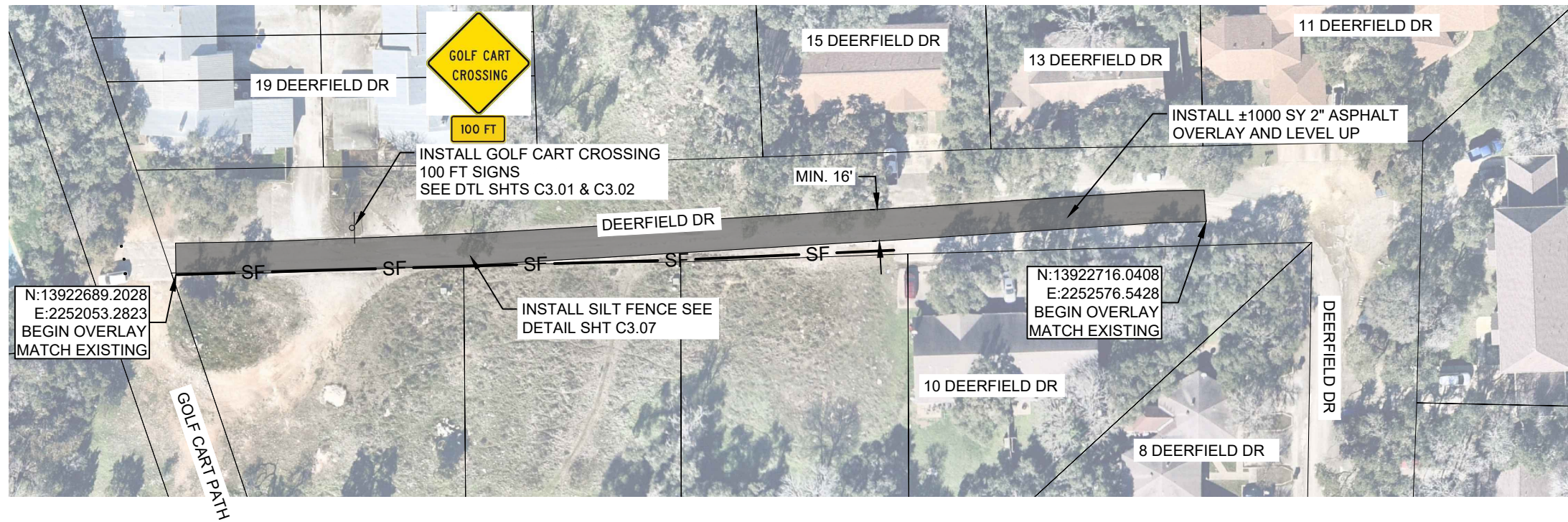
- NOTES:
1. CONTRACTOR SHALL REMOVE 8" OF DRIVEWAY MATERIAL (ASPHALT AND BASE) AND REMOVE FROM THE SITE.
  2. THE CONTRACTOR SHALL REPLACE EXISTING ASPHALT WITH 2" OF HMAC (TXDOT SPEC ITEM 3076) AND 6" OF FLEXIBLE BASE MATERIAL (TXDOT SPEC ITEM 247).
  3. THE CONTRACTOR SHALL MATCH EXISTING GRADES OF EXISTING ASPHALT AT TIE IN AREAS.
  4. THE CONTRACTOR SHALL CONSTRUCT A SWALE AT A MINIMUM 1% GRADE ACROSS THE TWO DRIVEWAYS AND CREATE POSITIVE DRAINAGE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
  5. DIMENSIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONCERNS OR DISCREPANCIES.

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LEGEND:

- OVERLAY SECTION
- SF  SILT FENCE

NOTES:

1. THE CONTRACTOR SHALL PLACE AN ASPHALT CONCRETE LEVEL-UP THROUGHOUT THE OVERLAY SECTION LIMITS (SPECIAL SPECIFICATION BLADE LEVEL-UP WITH ASPHALT CONCRETE) TO FILL IN ALL AREAS OF DEPRESSION.
2. THE CONTRACTOR SHALL INSTALL A 2" HMAC OVERLAY (TXDOT SPEC 3076) PER THE LIMITS SHOWN ON THE PLANS.
3. THE CONTRACTOR SHALL MATCH THE EXISTING PAVEMENT LIMITS, AND MAINTAIN A MINIMUM OF A 16' WIDE PAVEMENT SECTION.
4. THE CONTRACTOR SHALL MATCH EXISTING GRADES OF EXISTING ASPHALT AT TIE IN AREAS INCLUDING DRIVEWAYS.
5. THE CONTRACTOR SHALL PLACE HMAC OVERLAY MATCHING EXISTING GRADES AND DRAINAGE PATTERNS.
6. GOLF CART SIGN SHALL BE INSTALLED DIRECTLY BEHIND MAILBOXES AND SHALL NOT IMPEDE ACCESS.

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CITY OF WOODCREEK  
 2024 SAFETY ENHANCEMENT PROGRAM  
**DEERFIELD DR OVERLAY PLAN**

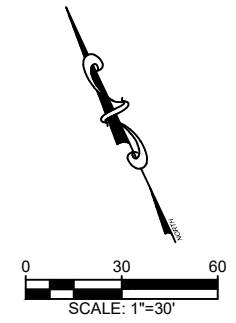
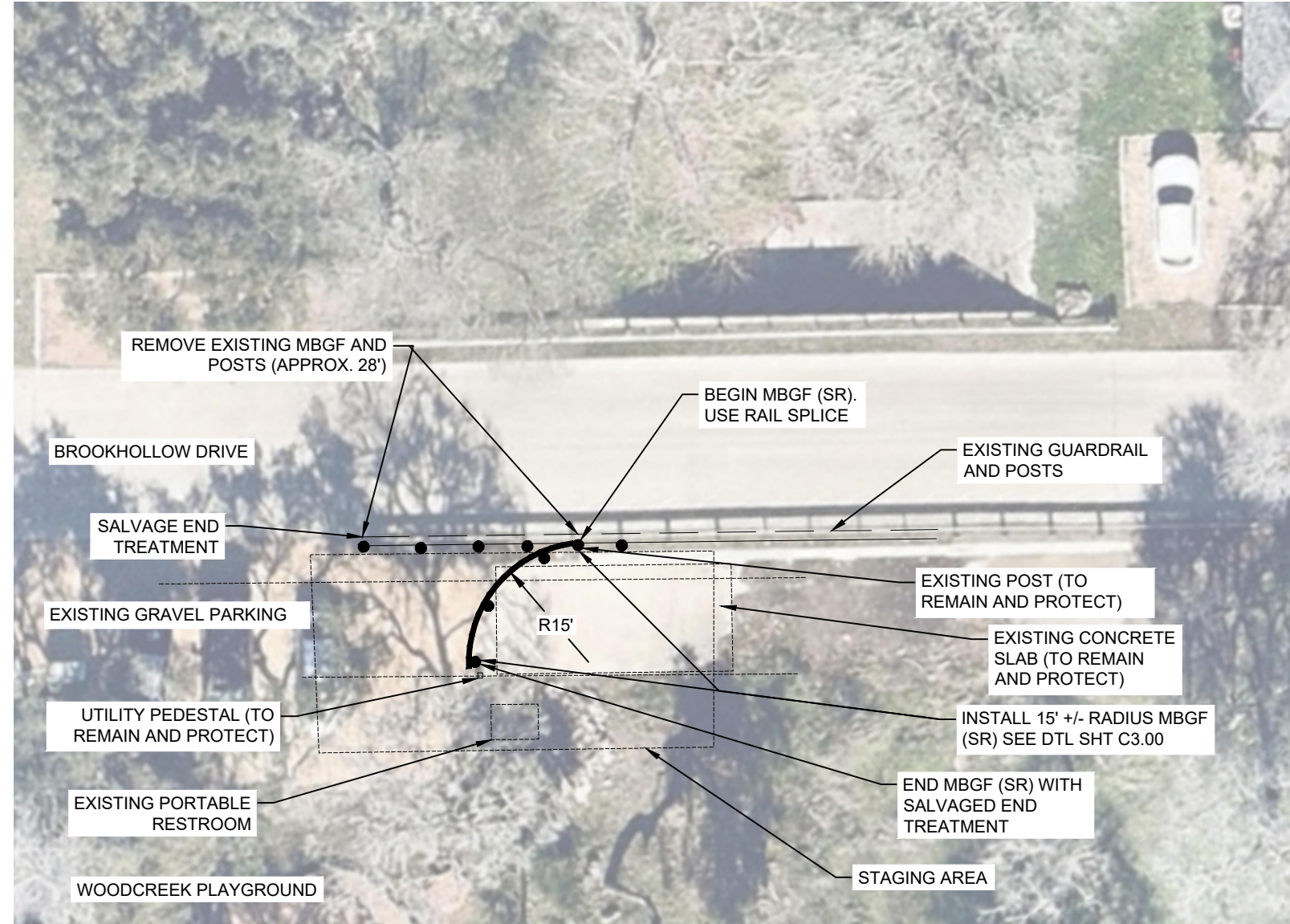
JOB: 154-102	
DATE: 2024/07/17	
DRAWN: TN	PM: MN
DESIGN: DM	
PEER: OTHER:	

REVISIONS:	
DELTA	DESCRIPTION



NOTES:

1. THE CONTRACTOR MAY CLOSE ONE LANE OF BROOKHOLLOW DR. TO ESTABLISH A WORK ZONE. DURING LANE CLOSURES, THE CONTRACTOR SHALL PROPERLY MAINTAIN TRAFFIC ON BROOKHOLLOW DR.
2. THE CONTRACTOR MAY TEMPORARILY REPOSITION THE EXISTING PORTABLE BATHROOM TO ACCOMMODATE MBGF INSTALLATION.
3. THE CONTRACTOR SHALL CONTACT TEXAS 811 AND LOCATE UNDERGROUND UTILITIES BEFORE CONSTRUCTION STARTS. THE CONTRACTOR SHALL CONTACT THE ENGINEER IF ANY UTILITY CONFLICTS WITH THE CONSTRUCTION OF IMPROVEMENTS DESCRIBED IN THE PLANS.
4. THE CONTRACTOR SHALL REMOVE (NOT STORE) PORTIONS OF THE EXISTING MBGF AND TIMBER POSTS AS SHOWN ON THE PLANS.
5. THE CONTRACTOR MAY SALVAGE AND REUSE EXISTING TIMBER POSTS TO CONSTRUCT SHORT RADIUS MBGF IF POSTS ARE IN GOOD CONDITION WITH NO INDICATION OF ROTTING OR FAILURE. STEEL AND COMPOSITE MATERIAL POSTS ARE NOT PERMITTED.
6. THE CONTRACTOR SHALL FIELD FIT A 15' (+/-) SHORT RADIUS MBGF AS SHOWN ON THE PLANS.
7. THE TIMBER POSTS SHALL NOT BE INSTALLED IN THE EXISTING CONCRETE SLAB.
8. THE CONTRACTOR MAY ADJUST THE SPACING OF THE TIMBER POSTS TO AVOID THE EXISTING CONCRETE SLAB AND UTILITIES.
9. THE CONSTRUCTOR SHALL INSTALL THE SHORT RADIUS MBGF USING A RAIL SPLICE AS INDICATED ON THE PLANS. THE NEW MBGF SHALL BE INSTALLED LEVEL WITH THE EXISTING ELEVATION OF THE MBGF AT THE SPLICE LOCATION.
10. THE CONTRACTOR SHALL REMOVE ALL EXCAVATED MATERIALS IMMEDIATELY AFTER DIGGING THE HOLES FOR THE TIMBER POSTS.



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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
**GUARDRAIL MODIFICATION PLAN**

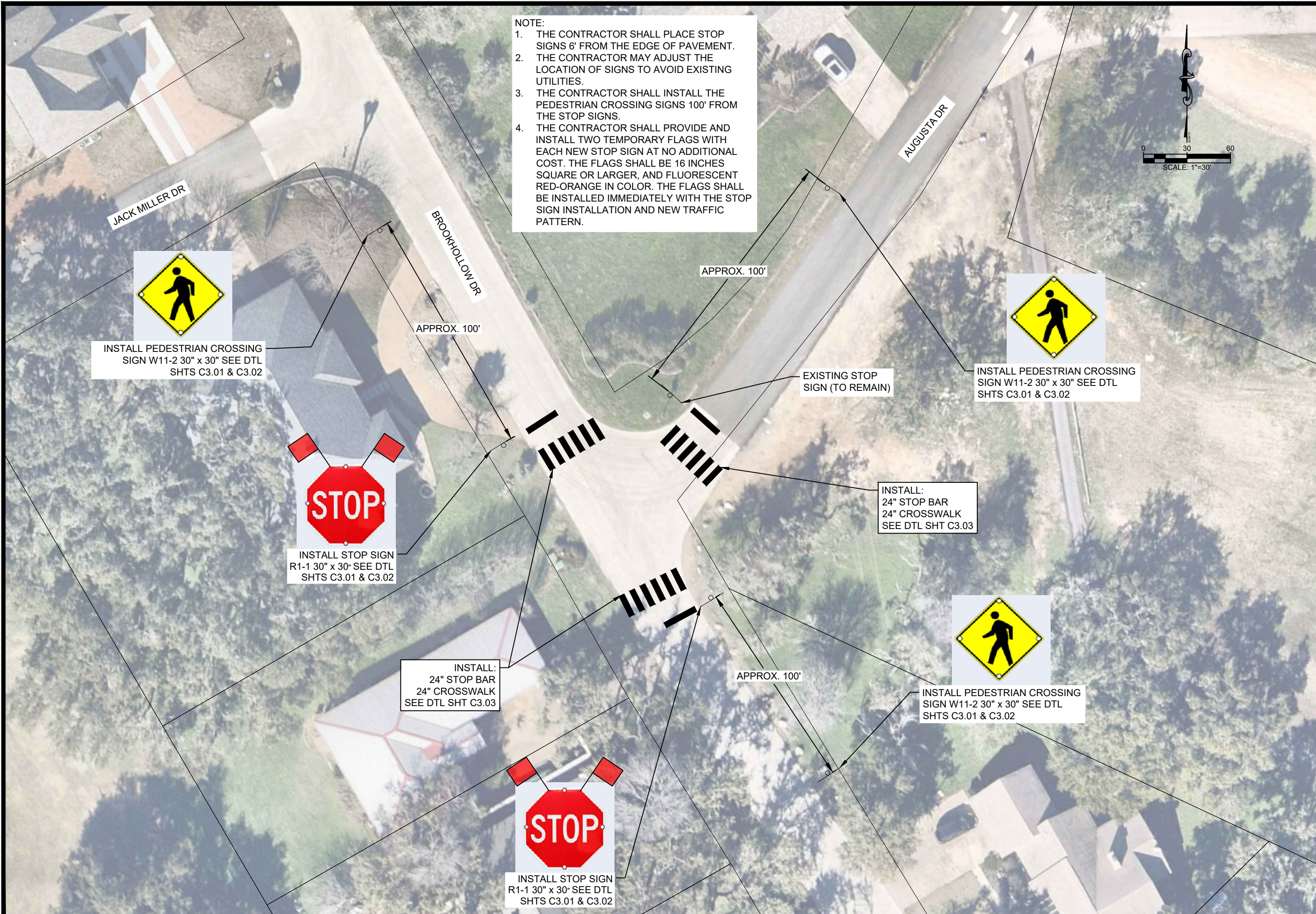
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DATE:	2024/07/17
DRAWN: TN	PM: MN
DESIGN: DM	
PEER:	OTHER:

REVISIONS:	
DELTA	DESCRIPTION

Date: Jul 17, 2024, 2:07pm User: D:\nort File: Z:\ENG - PHD\154 - City of Woodcreek\102 - TO 3 - 2024 Safety Enhancement Program\CAD\dwg\154\_102-MBGF-SGN-STRNG-PLAN-001.dwg

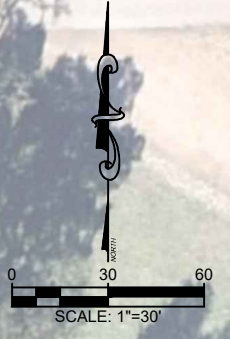


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 File: Z:ENG - PRD\154 - City of Woodcreek\102 - TO 3 - 2024 Safety Enhancement Program\_CAD.dwg\154\_102-MEGF-SGN-STRPNC-PLAN-001.dwg



**NOTE:**

1. THE CONTRACTOR SHALL PLACE STOP SIGNS 6' FROM THE EDGE OF PAVEMENT.
2. THE CONTRACTOR MAY ADJUST THE LOCATION OF SIGNS TO AVOID EXISTING UTILITIES.
3. THE CONTRACTOR SHALL INSTALL THE PEDESTRIAN CROSSING SIGNS 100' FROM THE STOP SIGNS.
4. THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO TEMPORARY FLAGS WITH EACH NEW STOP SIGN AT NO ADDITIONAL COST. THE FLAGS SHALL BE 16 INCHES SQUARE OR LARGER, AND FLUORESCENT RED-ORANGE IN COLOR. THE FLAGS SHALL BE INSTALLED IMMEDIATELY WITH THE STOP SIGN INSTALLATION AND NEW TRAFFIC PATTERN.



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CITY OF WOODCREEK  
 2024 SAFETY ENHANCEMENT PROGRAM  
**SIGNAGE AND CROSSWALKS**

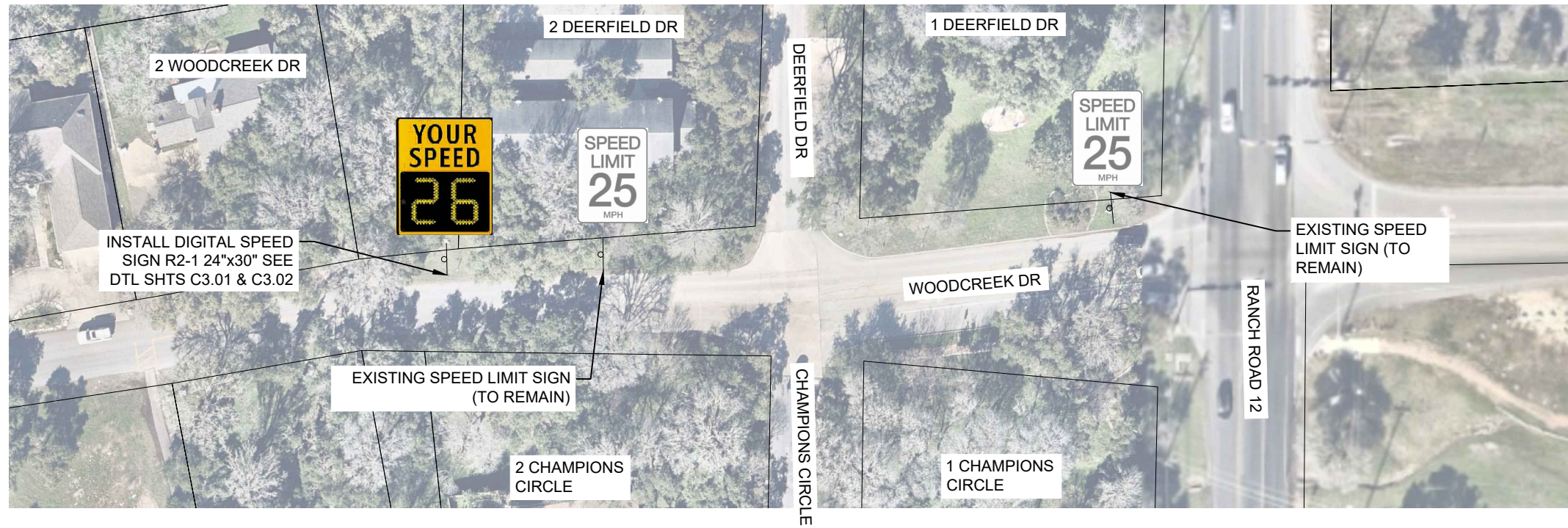
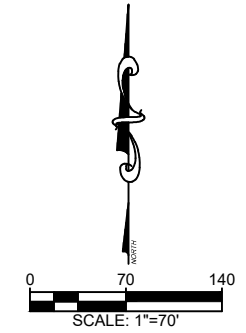
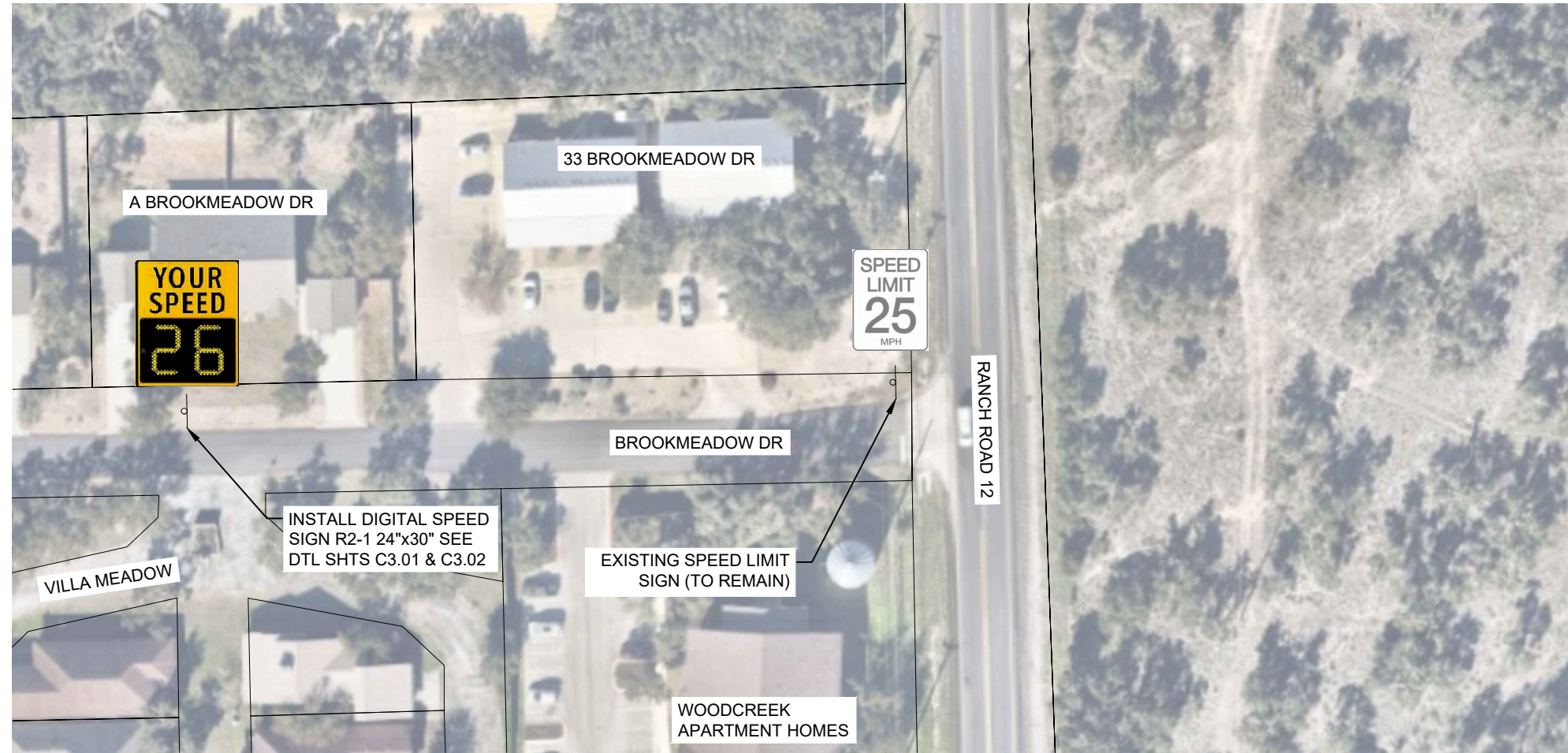
JOB:	154-102
DATE:	2024/07/17
DRAWN: TN	PM: MN
DESIGN:	DM:
PEER:	OTHER:

REVISIONS:	
DELTA	DESCRIPTION



**NOTES:**

1. THE CONTRACTOR SHALL ASSEMBLE AND INSTALL SOLAR POWERED DIGITAL SPEED SIGNS PROVIDED BY THE CITY OF WOODCREEK .
2. THE CONTRACTOR SHALL FURNISH AND INSTALL THE POSTS AND PROVIDE REQUIRED MOUNTING HARDWARE AS NECESSARY FOR THE SOLAR POWERED DIGITAL SPEED SIGNS.
3. THE SIGN LOCATIONS ARE APPROXIMATE, CONTRACTOR SHALL PLACE SIGNS WHERE THEY WILL BE FULLY VISIBLE. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES. CONTRACTOR SHALL TRIM ANY TREE LIMBS OR SHRUBS THAT WILL BLOCK THE VIEW OF THE INSTALLED SIGNS AT NO ADDITIONAL COST.



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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
DIGITAL SPEED SIGN  
LOCATIONS SHT 1

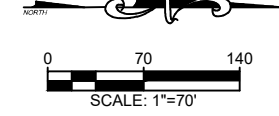
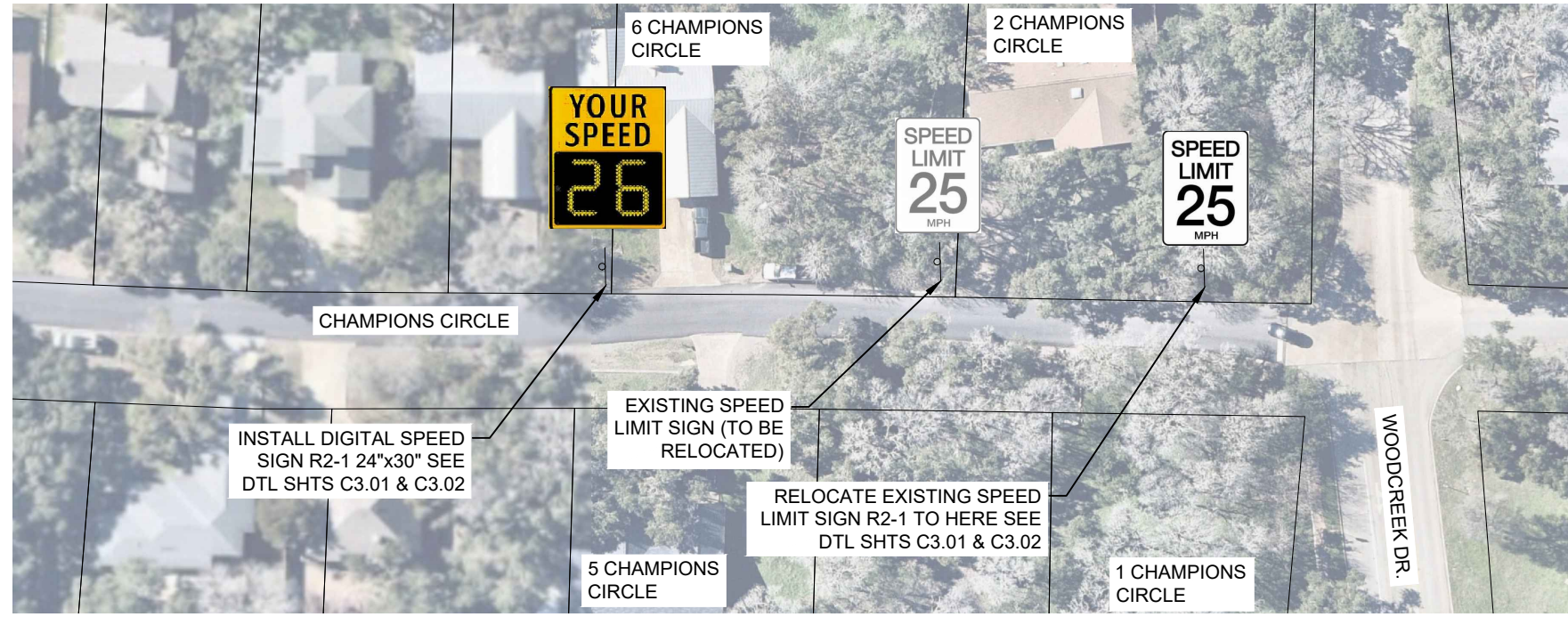
JOB: 154-102  
DATE: 2024/07/17  
DRAWN: TN PM: MN  
DESIGN: DM:  
PEER: OTHER:

REVISIONS:

DELTA	DESCRIPTION

Date: Jul 17, 2024, 2:07pm User: D: norri  
File: Z:\ENG - PHD\154 - City of Woodcreek\102 - TO 3 - 2024 Safety Enhancement Program\_CAD.dwg 154\_102-MEGF-SGN-STRPNC-PLAN-001.dwg





**NOTES:**

1. THE CONTRACTOR SHALL ASSEMBLE AND INSTALL SOLAR POWERED DIGITAL SPEED SIGNS PROVIDED BY THE CITY OF WOODCREEK .
2. THE CONTRACTOR SHALL FURNISH AND INSTALL THE POSTS AND PROVIDE REQUIRED MOUNTING HARDWARE AS NECESSARY FOR THE SOLAR POWERED DIGITAL SPEED SIGNS.
3. THE SIGN LOCATIONS ARE APPROXIMATE, CONTRACTOR SHALL PLACE SIGNS WHERE THEY WILL BE FULLY VISIBLE. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES. CONTRACTOR SHALL TRIM ANY TREE LIMBS OR SHRUBS THAT WILL BLOCK THE VIEW OF THE INSTALLED SIGNS AT NO ADDITIONAL COST.

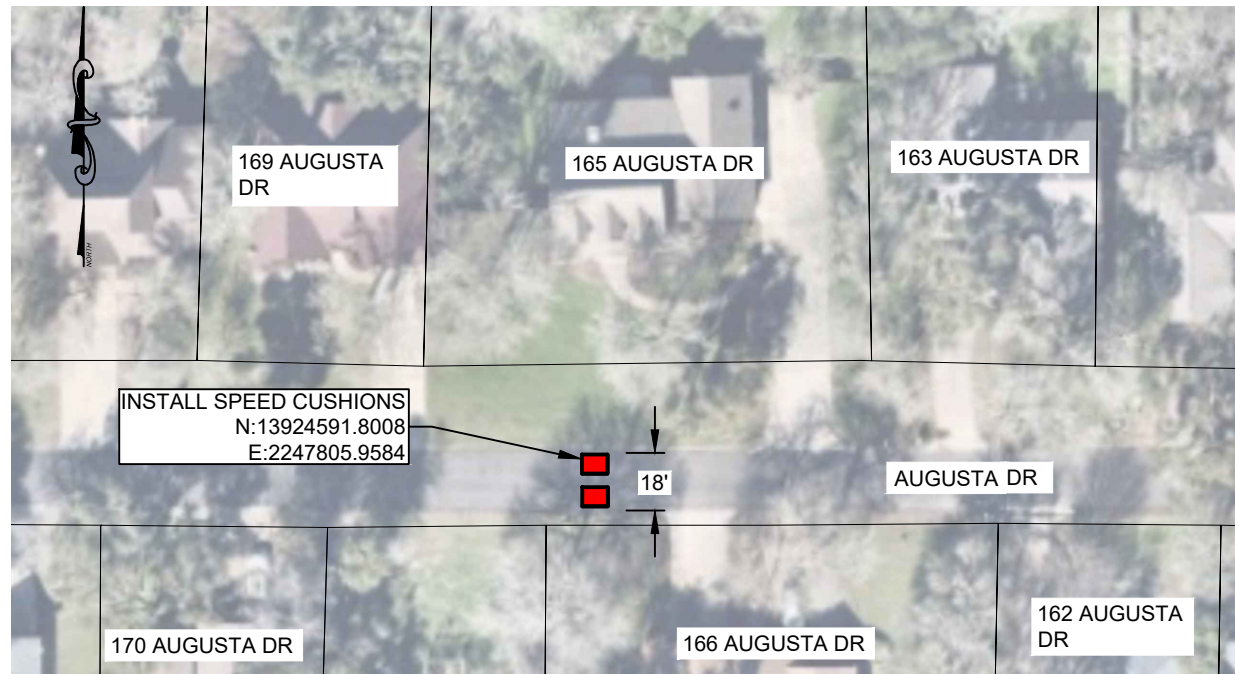
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**CITY OF WOODCREEK**  
**2024 SAFETY ENHANCEMENT PROGRAM**  
**DIGITAL SPEED SIGN LOCATIONS SHT 2**

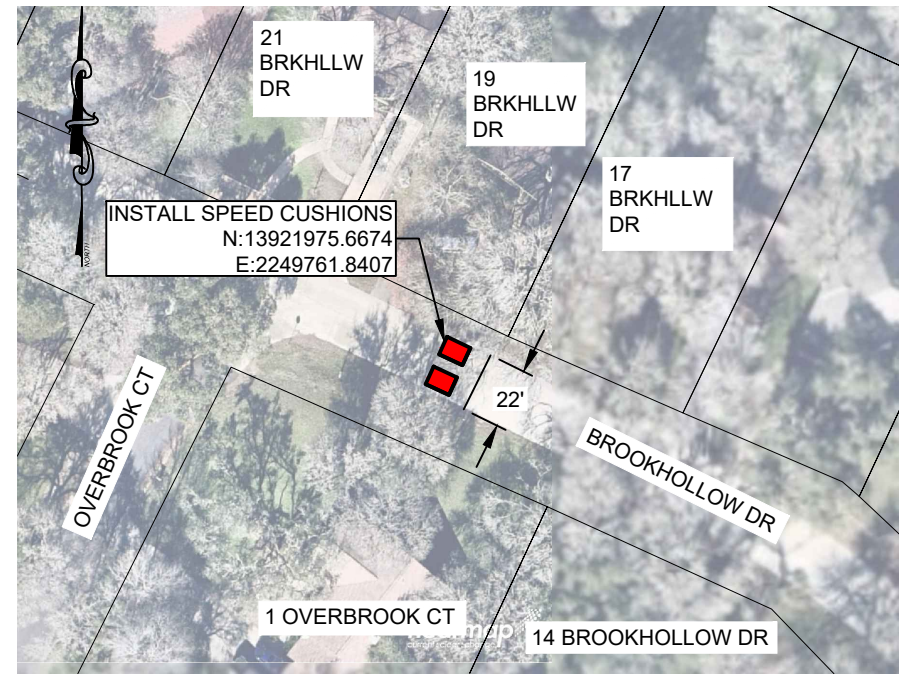
JOB: 154-102	
DATE: 2024/07/17	
DRAWN: TN	PM: MN
DESIGN: DM	OTHER:
PEER:	OTHER:

REVISIONS:	
DELTA	DESCRIPTION

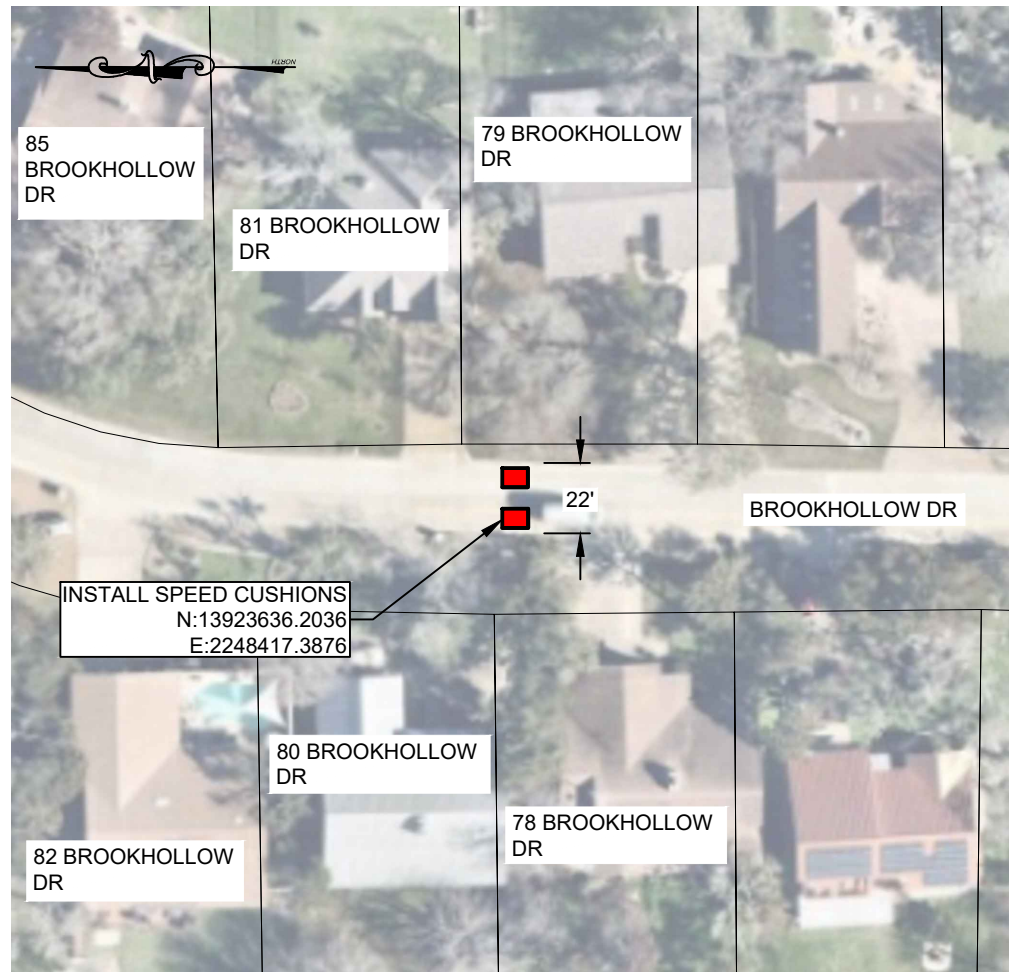




**165 AUGUSTA DR**  
SCALE: 1" = 60'



**19 BROOKHOLLOW DR**  
SCALE: 1" = 70'



**81 BROOKHOLLOW DR**  
SCALE: 1" = 60'



**65 WOODCREEK DR**  
SCALE: 1" = 70'



**27 WOODCREEK DR**  
SCALE: 1" = 80'

**NOTES:**

1. SEE SHTS C3.05 & C3.06 FOR SPEED CUSHION DETAILS. INSTALLATION SPACING IS DEPENDENT ON ROADWAY WIDTH, NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. SPEED CUSHIONS SHALL BE INSTALLED AT LEAST 7 FEET AWAY FROM ALL SURROUNDING DRIVEWAYS.
3. THE CONTRACTOR SHALL INSTALL SPEED CUSHIONS PER MANUFACTURER INSTALLATION RECOMMENDATIONS.



18830 FORTY SIX PKWY, BLDG 2, STE B (830) 438-0329  
SPRING BRANCH, TX 76070

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**CITY OF WOODCREEK**  
**2024 SAFETY ENHANCEMENT PROGRAM**  
**SPEED CUSHION LOCATIONS**

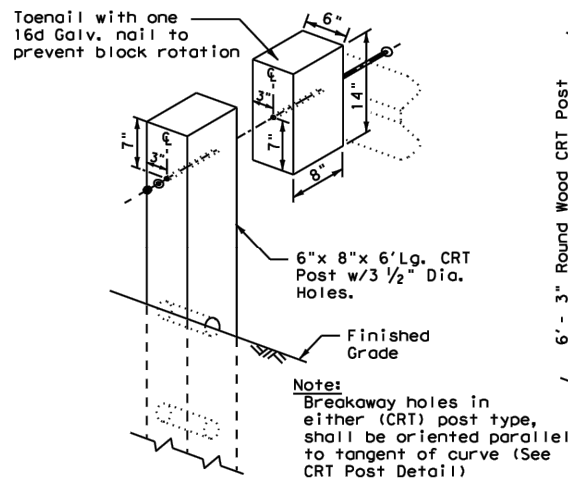
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REVISIONS:	
DELTA	DESCRIPTION

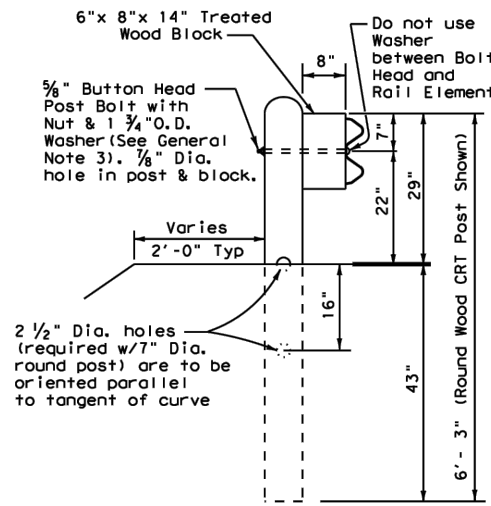
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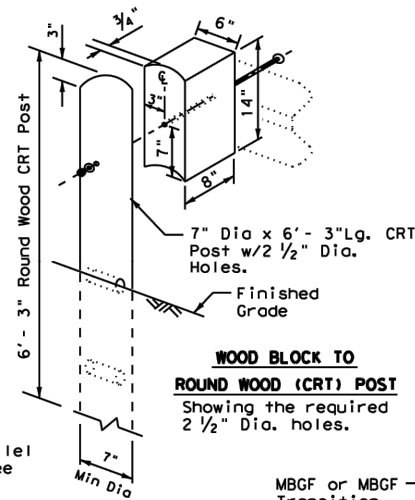


**WOOD BLOCK TO RECTANGULAR WOOD (CRT) POST**  
Showing the required 3 1/2" Dia. holes.

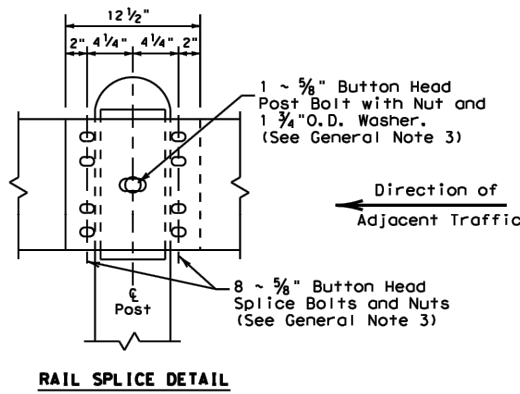


**(CRT) POST DETAIL CONTROLLED RELEASE TERMINAL POST**

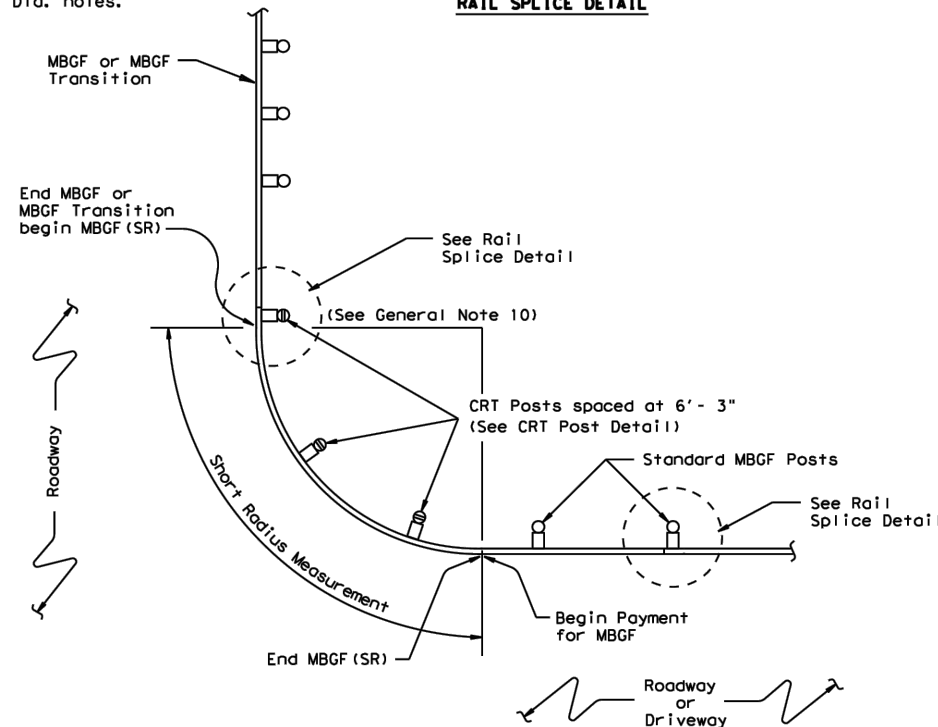
Two or more wood CRT post(s) are required at any radius installation located at intersecting roadways or driveways.



**WOOD BLOCK TO ROUND WOOD (CRT) POST**  
Showing the required 2 1/2" Dia. holes.



**RAIL SPLICE DETAIL**



**PLAN VIEW SHOWING TYPICAL RADIUS**

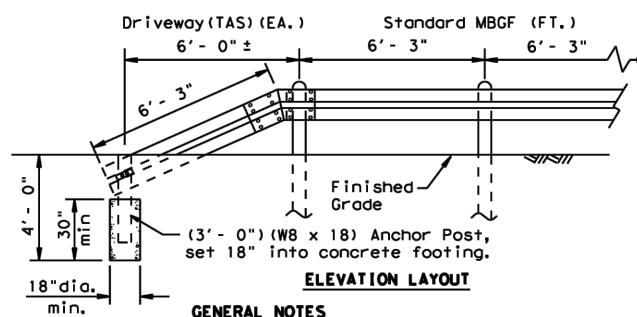
The required radius is shown elsewhere on the plans.

**GENERAL NOTES**

- The type of (CRT) post (round wood post, or rectangular wood post) will be shown elsewhere in the plans. The exact position of MBGF shall be shown elsewhere in the plans or as directed by the Engineer.
- Steel posts are not permitted at CRT post positions.
- Rail element shall meet the requirements of Item 540, "Metal Beam Guard Fence" except as modified on the plans. The Contractor may furnish rail elements of 12 1/2 or 25 foot nominal lengths.
- Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and Type A (1 3/4" O.D.) washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are 5/8" x 1 1/4" (or 2" long at triple rail splices) with a 5/8" double recessed nut (ASTM A563).
- Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item.
- Crown shall be widened to accommodate the Metal Beam Guard Fence.
- The lateral approach to the guard fence, shall have a slope rate of not more than 1V:10H.
- Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be positioned so that the face of curb is located directly below or behind the face of the block. Rail placed over curbs shall be installed so that the post bolt is located approximately 21 inches above the gutter pan or roadway surface.
- If solid rock is encountered within 0 to 18" of the finished grade, drill a 22" dia. hole, 24" into the rock, or drill two 12" dia. front to back overlapping holes, 24" into the rock. If solid rock is encountered below 18", drill a 12" dia. hole, 12" into the rock or to the standard embedment depth, whichever is less. Any excess post length, after meeting these depths, may be field cut to ensure proper guardrail mounting height. Backfill with a cohesionless material.
- Guardrail posts shall not be set in concrete, of any depth.
- Special rail fabrication will be required at installations having a curvature of less than 150 ft. radius. The required radius shall be shown on the plans.
- The terminal anchor section (TAS) post shall be set in Class A concrete (unless otherwise shown in the plans) in accordance with Item 421, "Hydraulic Cement Concrete." Concrete shall be subsidiary to the bid item requiring construction of the terminal anchor section (TAS). Terminal anchor post to be galvanized in accordance with Item 445, "Galvanizing."
- Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210, "Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL can furnish composite material posts and/or blocks.

**"DRIVEWAY" TERMINAL ANCHOR SECTION**

Only for use within driveway locations, where a standard (TAS) Terminal Anchor Section can not be installed.

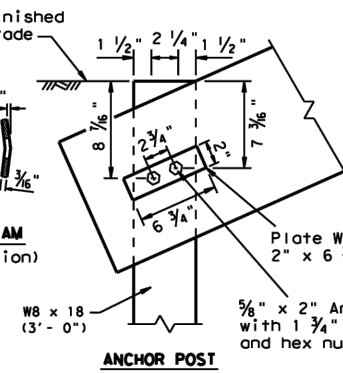
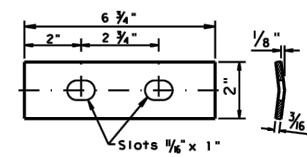


**ELEVATION LAYOUT**

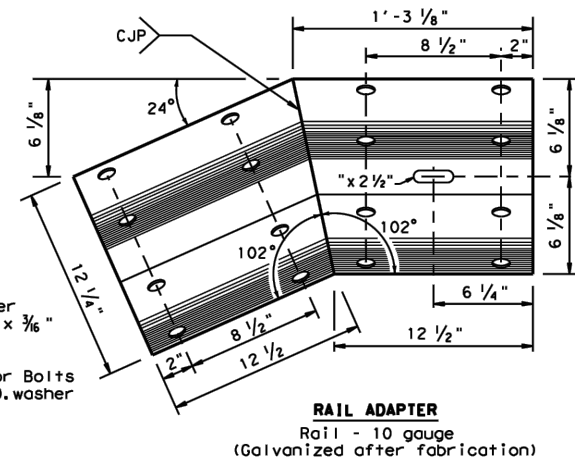
**GENERAL NOTES**

- The "Driveway" Terminal Anchor Section is ONLY to be used within driveway locations, where the ROW is limited and a standard 25 ft. (TAS) Terminal Anchor Section, is too long.
- Terminal anchor post shall be set in Class A concrete.
- All steel shall be galvanized after fabrication in accordance with Item 445, "Galvanizing."

**PLATE WASHER FOR METAL BEAM**  
(Galvanized after fabrication)



**ANCHOR POST**



**RAIL ADAPTER**  
Rail - 10 gauge  
(Galvanized after fabrication)

**ONLY FOR USE IN MAINTENANCE REPAIRS OR HIGHLY CONSTRAINED SITE CONDITIONS.**

Texas Department of Transportation  
Design Division Standard

**METAL BEAM GUARD FENCE (SHORT RADIUS) MBGF (SR) - 19**

FILE: mbgfsr19.dgn	DW: TxDOT	CK: KM	DW: BD	CK: VP
© TxDOT NOVEMBER 2019	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY	SHEET NO.	

JOB: 154-102  
DATE: 2024/07/17  
DRAWN: TN  
DESIGN: DM  
PEER: OTHER

REVISIONS:  
DELTA DESCRIPTION

SHEET:

C3.00

CITY OF WOODCREEK

2024 SAFETY ENHANCEMENT PROGRAM

METAL BEAM GUARD FENCE  
DETAIL

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SPRING BRANCH, TX 76070



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### SIGN SUPPORT DESCRIPTIVE CODES

(Descriptive Codes correspond to project estimate and quantities sheets)

SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)

#### Post Type

FRP = Fiberglass Reinforced Plastic Pipe (see SMD (FRP))  
 TWT = Thin-Walled Tubing (see SMD (TWT))  
 10BWG = 10 BWG Tubing (see SMD (SLIP-1) to (SLIP-3))  
 S80 = Schedule 80 Pipe (see SMD (SLIP-1) to (SLIP-3))

#### Number of Posts (1 or 2)

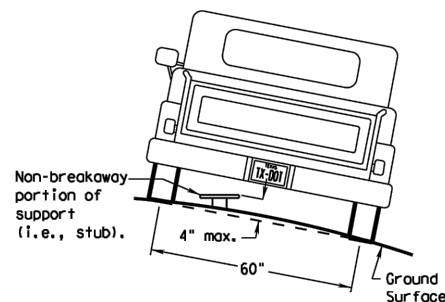
#### Anchor Type

UA = Universal Anchor - Concreted (see SMD (FRP) and (TWT))  
 UB = Universal Anchor - Bolted down (see SMD (FRP) and (TWT))  
 WS = Wedge Anchor Steel - (see SMD (TWT))  
 WP = Wedge Anchor Plastic (see SMD (TWT))  
 SA = Slipbase - Concreted (see SMD (SLIP-1) to (SLIP-3))  
 SB = Slipbase - Bolted Down (see SMD (SLIP-1) to (SLIP-3))

#### Sign Mounting Designation

P = Prefab. "Plain" (see SMD (SLIP-1) to (SLIP-3), (TWT), (FRP))  
 T = Prefab. "T" (see SMD (SLIP-1) to (SLIP-3), (TWT))  
 U = Prefab. "U" (see SMD (SLIP-1) to (SLIP-3))  
 IF REQUIRED  
 1EXT or 2EXT = Number of Extensions (see SMD (SLIP-1) to (SLIP-3), (TWT))  
 BM = Extruded Wind Beam (see SMD (SLIP-1) to (SLIP-3))  
 WC = 1.12 #/ft Wing Channel (see SMD (SLIP-1) to (SLIP-3))  
 EXAL = Extruded Aluminum Sign Panels (see SMD (SLIP-3))

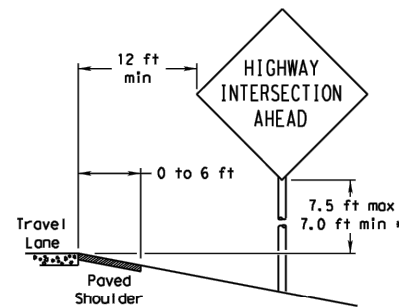
### REQUIRED CLEARANCE FOR BREAKAWAY SUPPORT



To avoid vehicle undercarriage snagging, any substantial remains of a breakaway support, when it is broken away, should not project more than 4 inches above a 60-inch chord (i.e., typical space between wheel paths).

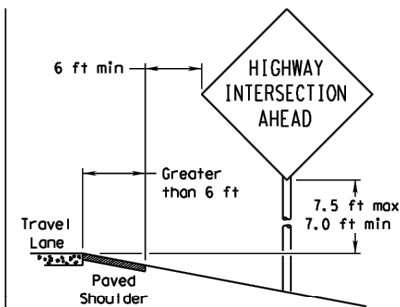
### SIGN LOCATION

#### PAVED SHOULDERS



#### LESS THAN 6 FT. WIDE

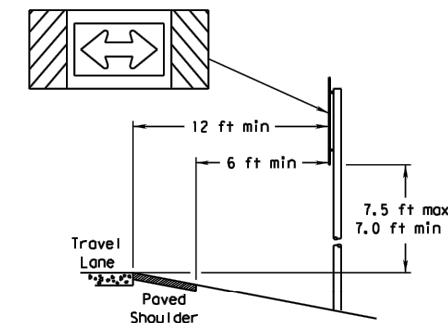
When the shoulder is 6 ft. or less in width, the sign must be placed at least 12 ft. from the edge of the travel lane.



#### GREATER THAN 6 FT. WIDE

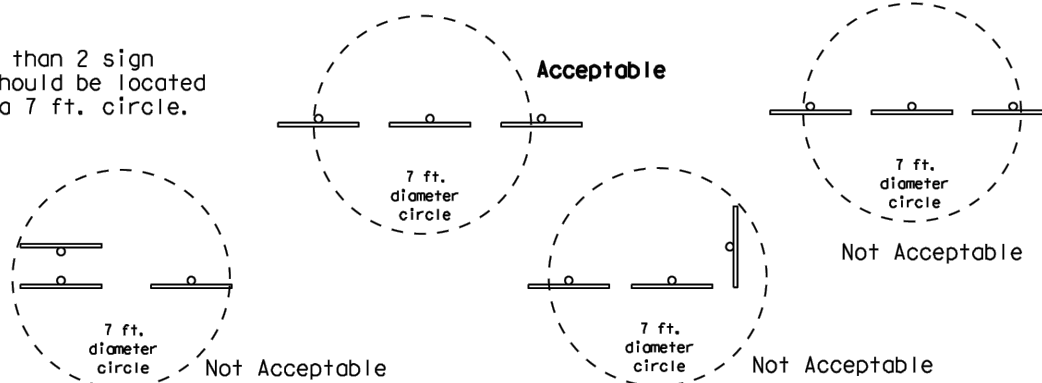
When the shoulder is greater than 6 ft in width, the sign must be placed at least 6 ft. from the edge of the shoulder.

#### T-INTERSECTION

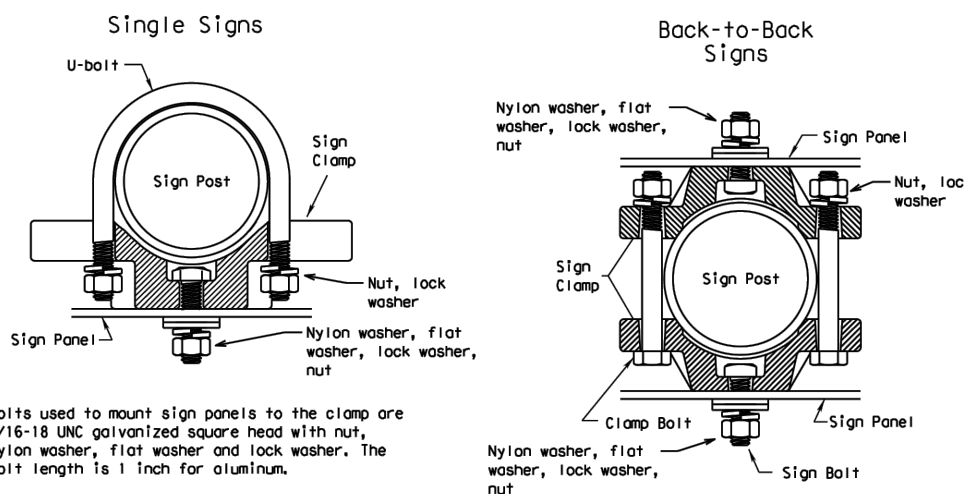


When this sign is needed at the end of a two-lane, two way roadway, the right edge of the sign should be in line with the centerline of the roadway. Place as close to ROW as practical.

No more than 2 sign posts should be located within a 7 ft. circle.



### TYPICAL SIGN ATTACHMENT DETAIL



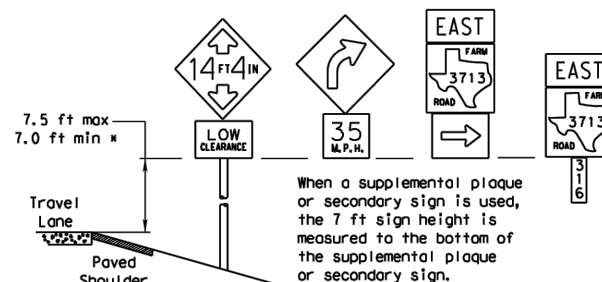
Bolts used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

When two sign clamps are used to mount signs back-to-back, use a 5/16-18 UNC galvanized hex head per ASTM A307 with nut and helical-spring lock washer. The approximate bolt lengths for various post sizes and sign clamp types are given in the table at right. The bolt length may need to be adjusted depending upon field conditions.

Sign clamps may be either the specific size clamp or the universal clamp.

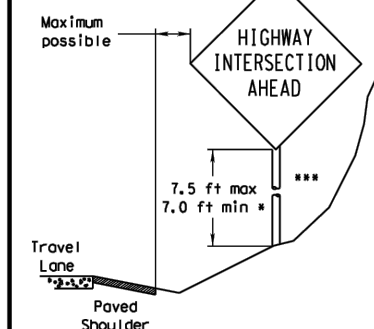
Pipe Diameter	Approximate Bolt Length	
	Specific Clamp	Universal Clamp
2" nominal	3"	3 or 3 1/2"
2 1/2" nominal	3 or 3 1/2"	3 1/2 or 4"
3" nominal	3 1/2 or 4"	4 1/2"

#### SIGNS WITH PLAQUES



When a supplemental plaque or secondary sign is used, the 7 ft sign height is measured to the bottom of the supplemental plaque or secondary sign.

#### RESTRICTED RIGHT-OF-WAY (When 6 ft min. is not possible.)

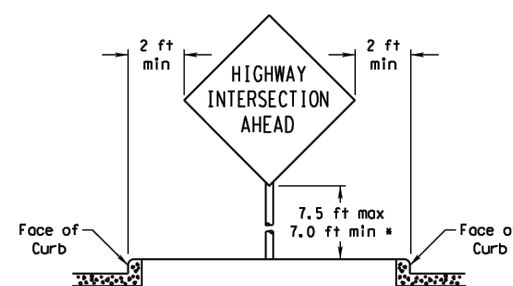


Right-of-way restrictions may be created by rocks, water, vegetation, forest, buildings, a narrow island, or other factors.

In situations where a lateral restriction prevents the minimum horizontal clearance from the edge of the travel lane, signs should be placed as far from the travel lane as practical.

\*\*\* Post may be shorter if protected by guardrail or if Engineer determines the post could not be hit due to extreme slope.

#### CURB & GUTTER OR RAISED ISLAND



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CITY OF WOODCREEK  
 2024 SAFETY ENHANCEMENT PROGRAM  
 SIGN MOUNTING DETAIL SHT 1

JOB: 154-102  
 DATE: 2024/07/17  
 DRAWN: TN PM: MN  
 DESIGN: DM:  
 PEER: OTHER:

REVISIONS:	
DELTA	DESCRIPTION

Texas Department of Transportation  
 Traffic Operations Division

## SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS GENERAL NOTES & DETAILS

### SMD (GEN) -08

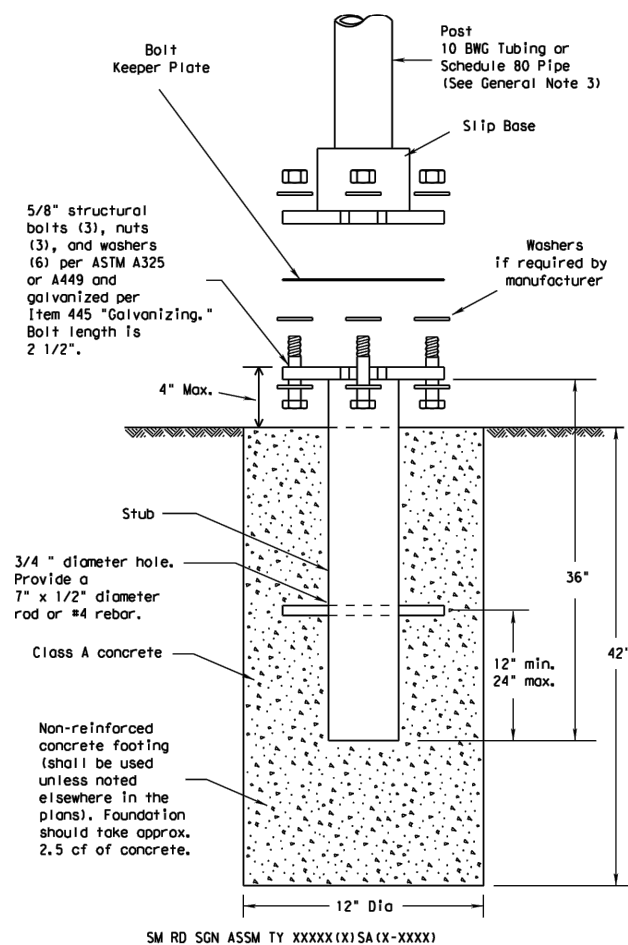
© TxDOT July 2002	DM: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
9-08	CONT	SECT	JOB	HIGHWAY
	DIST	COUNTY	SHEET NO.	



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DATE: FILE:

## TRIANGULAR SLIPBASE INSTALLATION GENERAL REQUIREMENTS



### NOTE

There are various devices approved for the Triangular Slipbase System. Please reference the Material Producer List for approved slip base systems. [http://www.txdot.gov/business/producer\\_list.htm](http://www.txdot.gov/business/producer_list.htm) The devices shall be installed per manufacturers' recommendations. Installation procedures shall be provided to the Engineer by Contractor.

### GENERAL NOTES:

- Slip base shall be permanently marked to indicate manufacturer. Method, design, and location of marking are subject to approval of the TxDOT Traffic Standards Engineer.
- Material used as post with this system shall conform to the following specifications:
  - 10 BWG Tubing (2.875" outside diameter)
    - 0.134" nominal wall thickness
    - Seamless or electric-resistance welded steel tubing or pipe
    - Steel shall be HSLAS Gr 55 per ASTM A1011 or ASTM A1008
    - Other steels may be used if they meet the following:
      - 55,000 PSI minimum yield strength
      - 70,000 PSI minimum tensile strength
      - 20% minimum elongation in 2"
    - Wall thickness (uncoated) shall be within the range of 0.122" to 0.138"
    - Outside diameter (uncoated) shall be within the range of 2.867" to 2.883"
    - Galvanization per ASTM A123 or ASTM A653 G210. For precoated steel tubing (ASTM A653), recoat tube outside diameter weld seam by metallizing with zinc wire per ASTM B833.
  - Schedule 80 Pipe (2.875" outside diameter)
    - 0.276" nominal wall thickness
    - Steel tubing per ASTM A500 Gr C
    - Other seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the following:
      - 46,000 PSI minimum yield strength
      - 62,000 PSI minimum tensile strength
      - 21% minimum elongation in 2"
    - Wall thickness (uncoated) shall be within the range of 0.248" to 0.304"
    - Outside diameter (uncoated) shall be within the range of 2.855" to 2.895"
    - Galvanization per ASTM A123
- See the Traffic Operations Division website for detailed drawings of sign clamps and Texas Universal Triangular Slipbase System components. The website address is <http://www.txdot.gov/publications/traffic.htm>
- Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.

### ASSEMBLY PROCEDURE

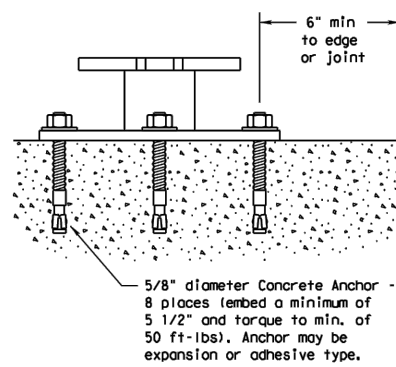
#### Foundation

- Prepare 12-inch diameter by 42-inch deep hole. If solid rock is encountered, the depth of the foundation may be reduced such that it is embedded a minimum of 18 inches into the solid rock.
- The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor-driven concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
- Push the pipe end of the slip base stub into the center of the concrete. Rotate the stub back and forth while pushing it down into the concrete to assure good contact between the concrete and stub. Continue to work the stub into the concrete until it is between 2 to 4 inches above the ground.
- Plumb the stub. Allow a minimum of 4 days to set, unless otherwise directed by the Engineer.
- The triangular slipbase system is multidirectional and is designed to release when struck from any direction.

#### Support

- Cut support so that the bottom of the sign will be 7 to 7.5 feet above the edge of the travelway (i.e., edge of the closest lane) when slip plate is below the edge of pavement or 7 to 7.5 feet above slip plate when the slip plate is above the edge of the travelway. The cut shall be plumb and straight.
- Attach sign to support using connections shown. When multiple signs are installed on the same support, ensure the minimum clearance between each sign is maintained. See SMD(SLIP-2) for clearances based on sign types.

### CONCRETE ANCHOR



Concrete anchor consists of 5/8" diameter stud bolt with UNC series bolt threads on the upper end, heavy hex nut per ASTM A563, and hardened washer per ASTM F436. The stud bolt shall have a minimum yield and ultimate tensile strength of 50 and 75 KSI, respectively. Nuts, bolts and washers shall be galvanized per Item 445, "Galvanizing." Adhesive type anchors shall have stud bolts installed with Type III epoxy per DMS-6100, "Epoxyes and Adhesives." Adhesive anchors may be loaded after adequate epoxy cure time per the manufacturer's recommendations. Top of bolt shall extend at least flush with top of the nut when installed. The anchor, when installed in 4000 psi normal-weight concrete with a 5 1/2" minimum embedment, shall have a minimum allowable tension and shear of 3900 and 3100 psi, respectively.

**Texas Department of Transportation**  
Traffic Operations Division

## SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

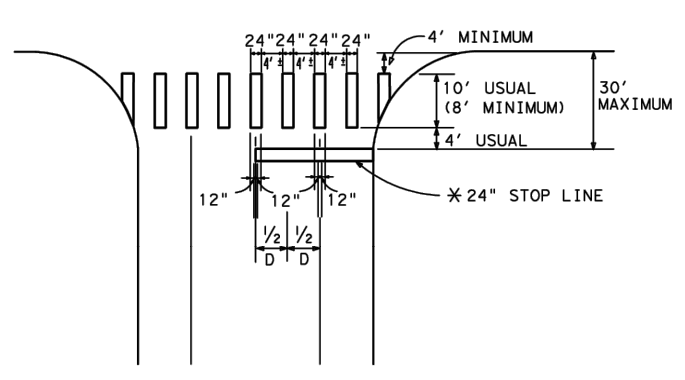
### SMD (SLIP-1) -08

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9-08	REVISIONS	CONT	SECT	JOB	HIGHWAY
		DIST	COUNTY	SHEET NO.	

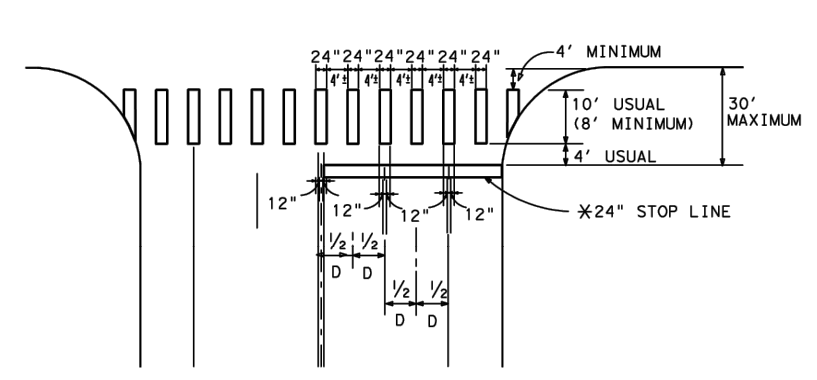
26B

REVISIONS:	
DELTA	DESCRIPTION

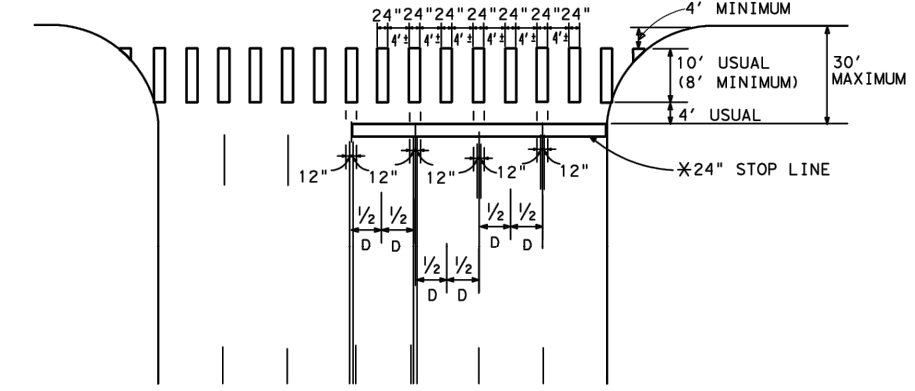




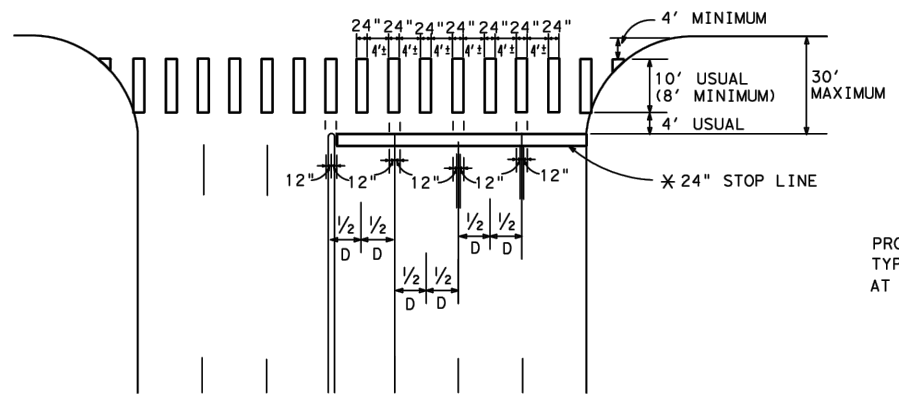
TWO LANES WITH SHOULDERS



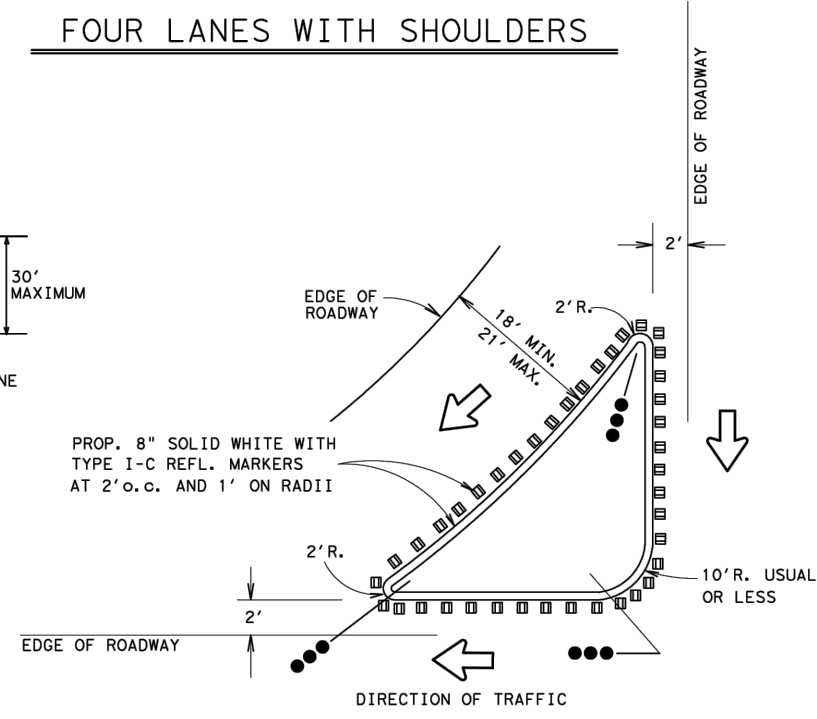
FOUR LANES WITH SHOULDERS



MULTI - LANES

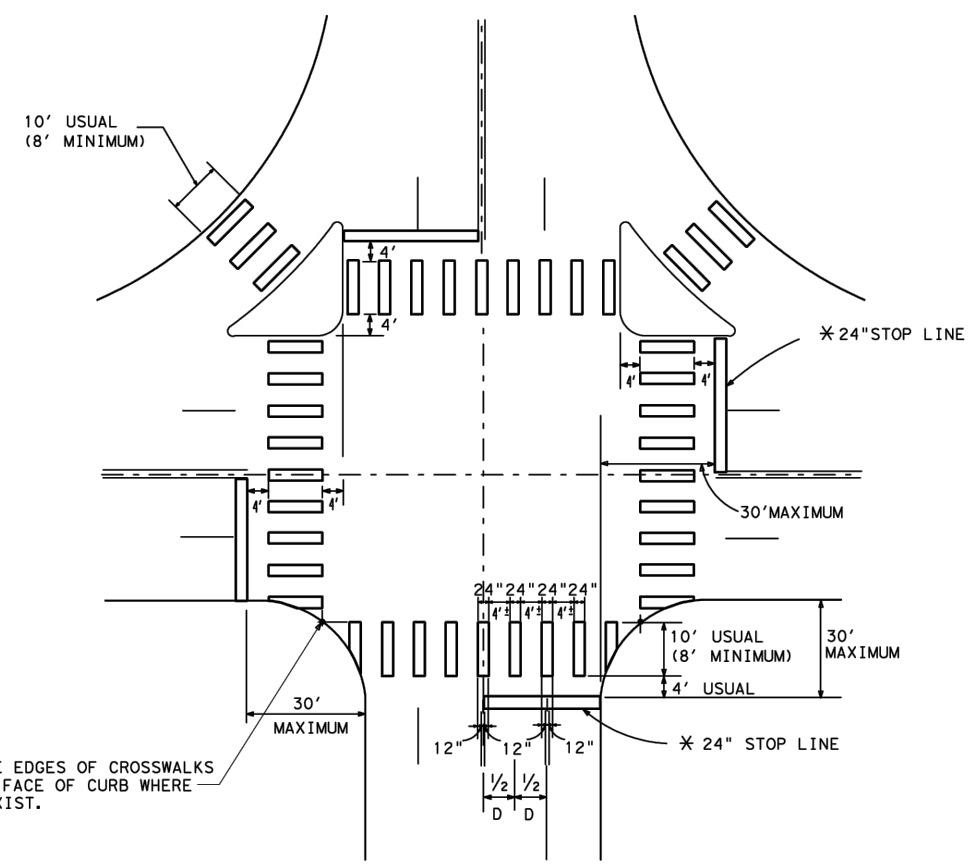


MULTI - LANE WITH MEDIAN



TYPICAL RIGHT TURN ISLAND WITH DELINEATION

COMMON POINT OF OUTSIDE EDGES OF CROSSWALKS AT EDGE OF PAVEMENT OR FACE OF CURB WHERE NO RIGHT TURN ISLAND EXIST.

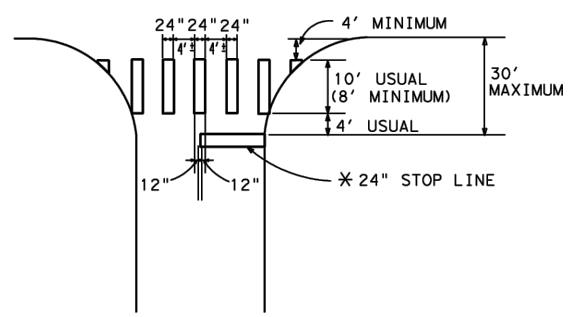


INTERSECTION WITH RIGHT - TURN ISLANDS

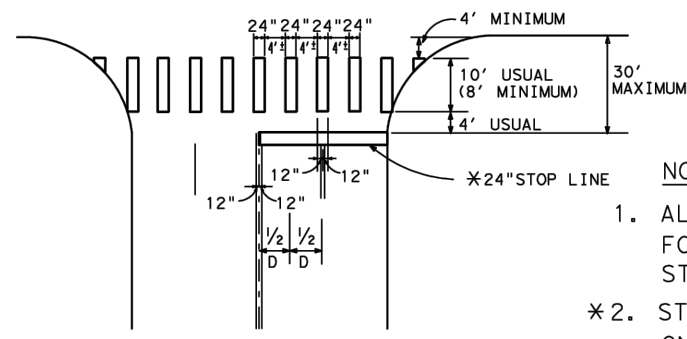
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11	12	13	14	15	16
17	18	19	20	21	22
23	24	25	26	27	28
29	30	31	32	33	34
35	36	37	38	39	40
41	42	43	44	45	46
47	48	49	50	51	52
53	54	55	56	57	58
59	60	61	62	63	64
65	66	67	68	69	70
71	72	73	74	75	76
77	78	79	80	81	82
83	84	85	86	87	88
89	90	91	92	93	94
95	96	97	98	99	100

ACC:



TWO LANES



FOUR LANES

- NOTES:
- ALL LONGITUDINAL LINES FORMING CROSSWALK AND STOP LINES SHALL BE WHITE
  - STOP LINES AS REQUIRED ON DETAILED PAVEMENT MARKING PLANS.
  - "D" IS EQUAL TO ONE HALF THE DISTANCE.

San Antonio District Standard  
**TYPICAL CROSSWALK DETAILS**  
 TCD-05  
 © 2006 Texas Department of Transportation

REVISIONS	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
DEC 1999 AUG 2005	6		
	STATE	DIST.	COUNTY
	TEXAS	SAT	
	CONT.	SECT.	JOB HIGHWAY NO.

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CITY OF WOODCREEK  
 2024 SAFETY ENHANCEMENT PROGRAM  
**CROSSWALK DETAIL**

JOB: 154-102  
 DATE: 2024/07/17  
 DRAWN: TN PM: MN  
 DESIGN: DM:  
 PEER: OTHER:

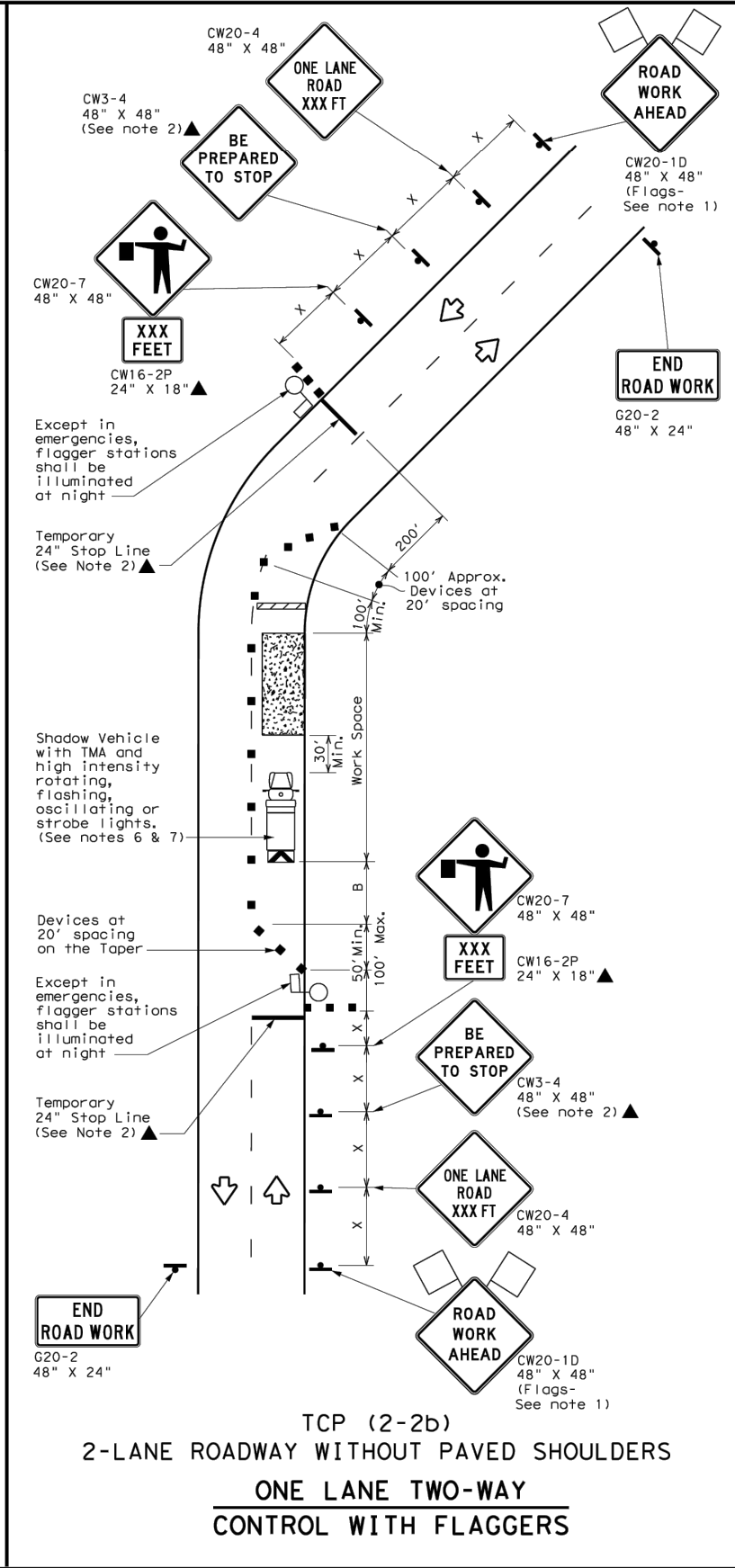
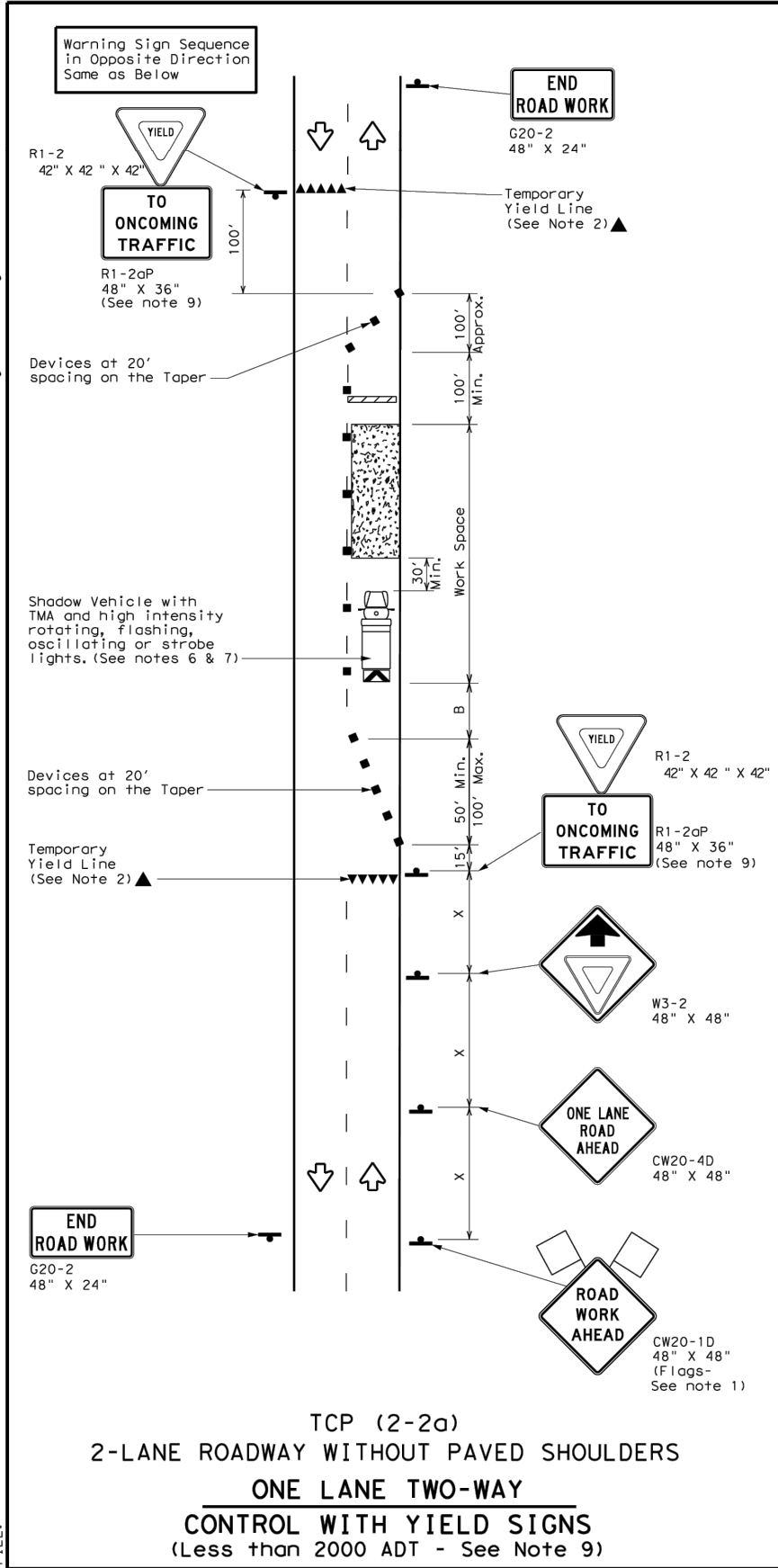
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DELTA	DESCRIPTION



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**LEGEND**

	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed * X	Formula L = WS <sup>2</sup> / 60	Minimum Desirable Taper Lengths X X			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30		150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45		450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

\* Conventional Roads Only  
 \*\* Taper lengths have been rounded off.  
 L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

**TYPICAL USAGE**

	MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
		✓	✓	✓	

**GENERAL NOTES**

- Flags attached to signs where shown, are REQUIRED.
  - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
  - The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4 "ONE LANE ROAD XXX FT" sign, but proper sign spacing shall be maintained.
  - Flaggers should use two-way radios or other methods of communication to control traffic.
  - Length of work space should be based on the ability of flaggers to communicate.
  - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
  - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
- TCP (2-2a)**
- The R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work space should be no longer than one half city block. In rural areas, roadways with less than 2000 ADT, work space should be no longer than 400 feet.
  - The R1-2aP "YIELD TO ONCOMING TRAFFIC" sign shall be placed on a support at a 7 foot minimum mounting height.
- TCP (2-2b)**
- Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
  - If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain stopping sight distance to the flagger and a queue of stopped vehicles. (See table above).
  - Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

**Texas Department of Transportation**  
 Traffic Operations Division Standard

**TRAFFIC CONTROL PLAN**  
**ONE-LANE TWO-WAY**  
**TRAFFIC CONTROL**  
**TCP (2-2) - 18**

FILE: tcp2-2-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS				
8-95 3-03				
1-97 2-12				
4-98 2-18				
	DIST	COUNTY	SHEET NO.	



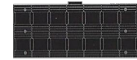


### Speed Cushions

### TL Standard Cushion

**General Description:** Speed Cushions of various dimensions may be constructed utilizing patented directional tongue and groove 18" x 42" interlocking rubber modules. This two directional tongue and groove interlocking module system provides additional connection between the modules and increases stability of the installed speed cushion. Each module is bolted to the road using six fusion coated rust resistant lag bolts through a plastic shield installed in the pavement.

Patented Interlocking tongue and groove module



### Standard Speed Cushion

#### SPECIFICATIONS

**Dimensions of the tongue and groove modules:**

Width: 18" (+/- 1/16")

Length: 42" (+/- 1/8")

Thickness: 3" (+/- 1/8")

**Dimensions of the Cushions are changeable by**

Width: 18" increments

Length: 42" increments

**Standard Dimensions of Speed Cushions**

7' x 6' x 3" • 8 modules

10.5' x 6' x 3" (Flat surface 72" x 42") • 12 modules

14' x 6' x 3" (Flat surface 72" x 84") • 16 modules

21' x 6' x 3" (Flat surface 72" x 126") • 20 modules

Entrance and exit gradient: 1:15 (7%) Lip: .25"

Side gradient: 1:3 (35%) Lip: .25"

**Physical properties:**

**Material:** Compression molded 100% recycled synthetic and natural rubber composite

**Tensile strength:** minimum 500 psi

**Shore hardness:** minimum 70A

**Specific gravity:** 1.1

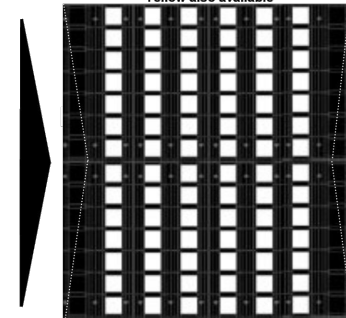
**Deformation Rate:** None; 100% recovery

**Skid Resistance:** 89 (Dry)

**Markings:** All markings are embedded into the rubber during the manufacturing process and have reflective qualities.

#### White Square Pattern

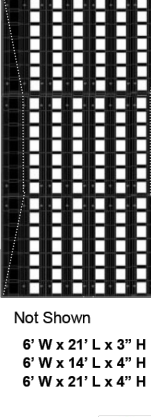
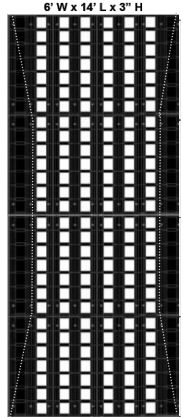
Yellow also available



6' W x 7' L x 3" H  
Part # SC-070603-W

Part # SC-140603-W  
6' W x 14' L x 3" H

Part # SC-1050603-W  
6' W x 10.5 L x 3" H



Not Shown

6' W x 21' L x 3" H

6' W x 14' L x 4" H

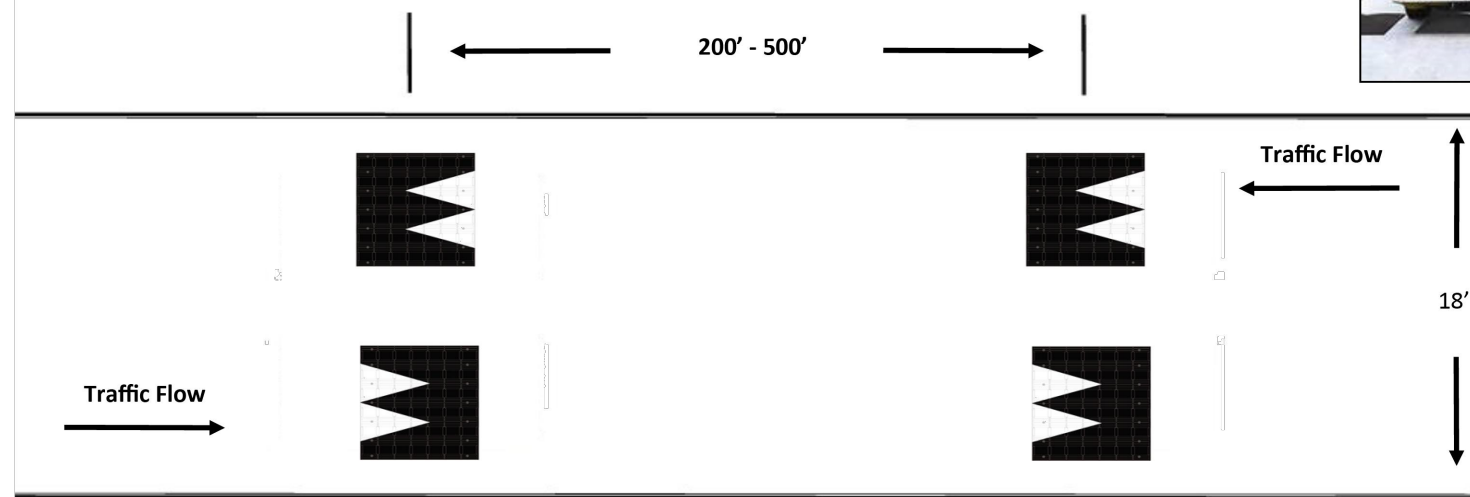
6' W x 21' L x 4" H

TRAFFIC LOGIX CORP 3 HARRIET LANE SPRING VALLEY, NY 10977 866.915.6449 www.trafficlogix.com

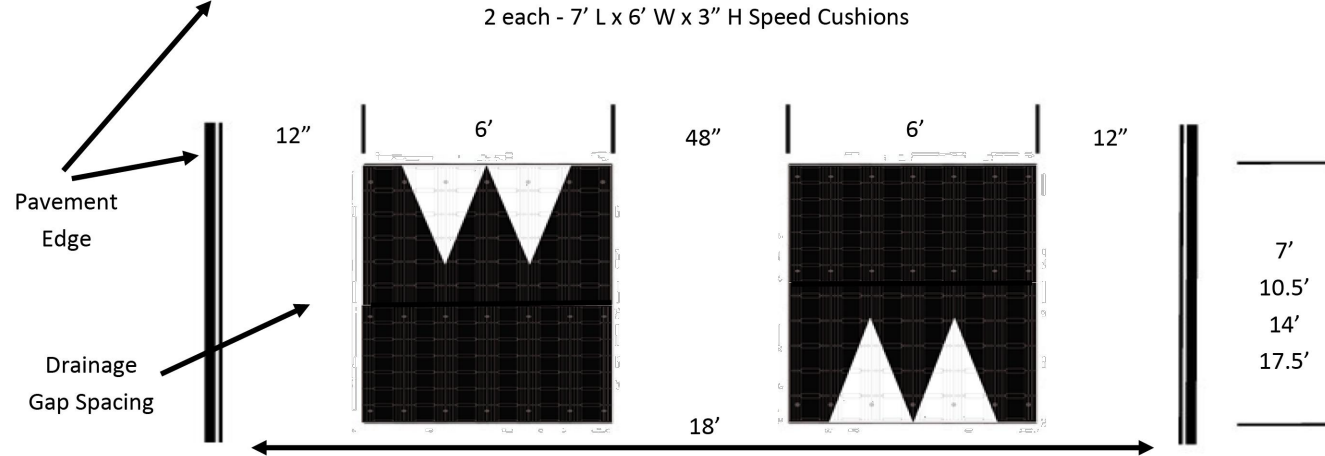


TRAFFIC LOGIX CORP 3 HARRIET LANE SPRING VALLEY, NY 10977

### Suggested Layout 18' Roadway

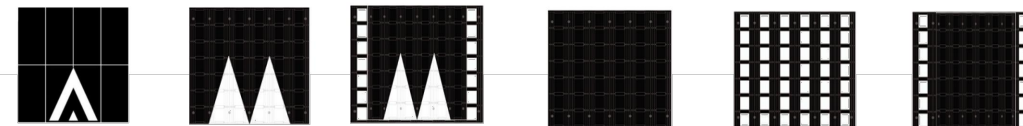


2 each - 7' L x 6' W x 3" H Speed Cushions



This is not an approved plan. Offered only as a suggestion. A trained traffic engineer must always be consulted for proper placement and cushion spacing.

Various cushion marking patterns are available and can be mixed or matched



18830 FORTY SIX PKWY, BLDG 2, STE B (830) 438-0329  
SPRING BRANCH, TX 76070

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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
SPEED CUSHION DETAIL SHT 1

JOB: 154-102  
DATE: 2024/07/17  
DRAWN: TN PM: MN  
DESIGN: DM:  
PEER: OTHER:

REVISIONS:  
DELTA DESCRIPTION

SHEET:  
C3.05

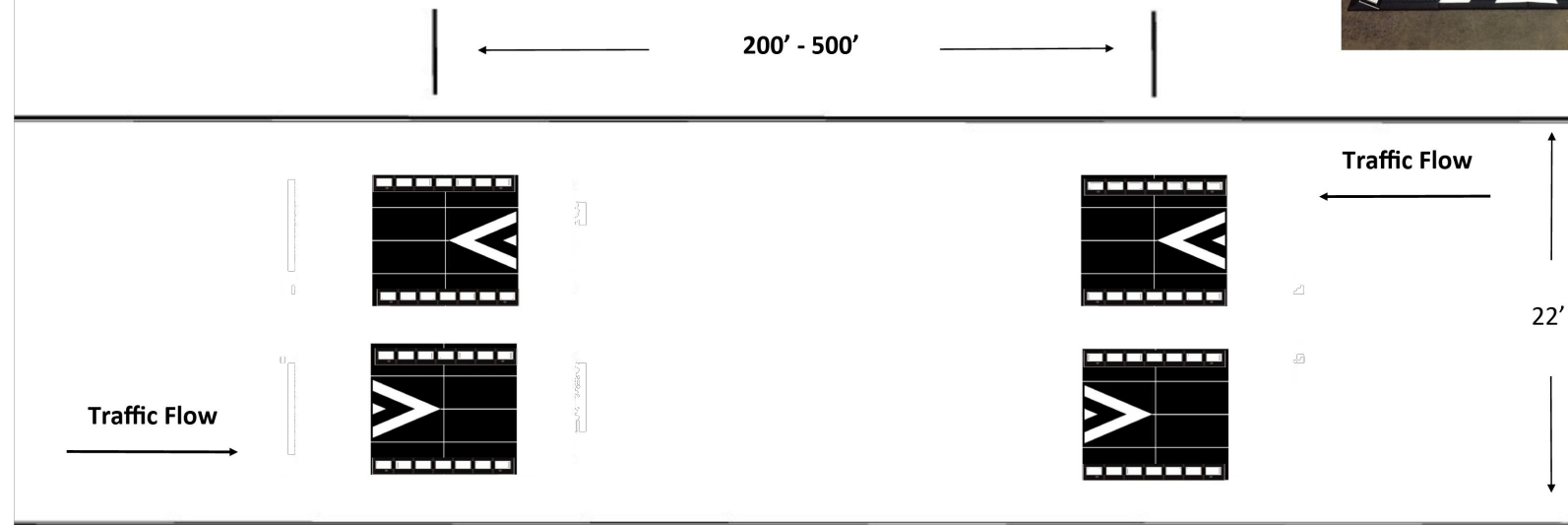
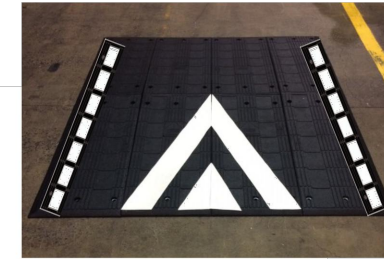




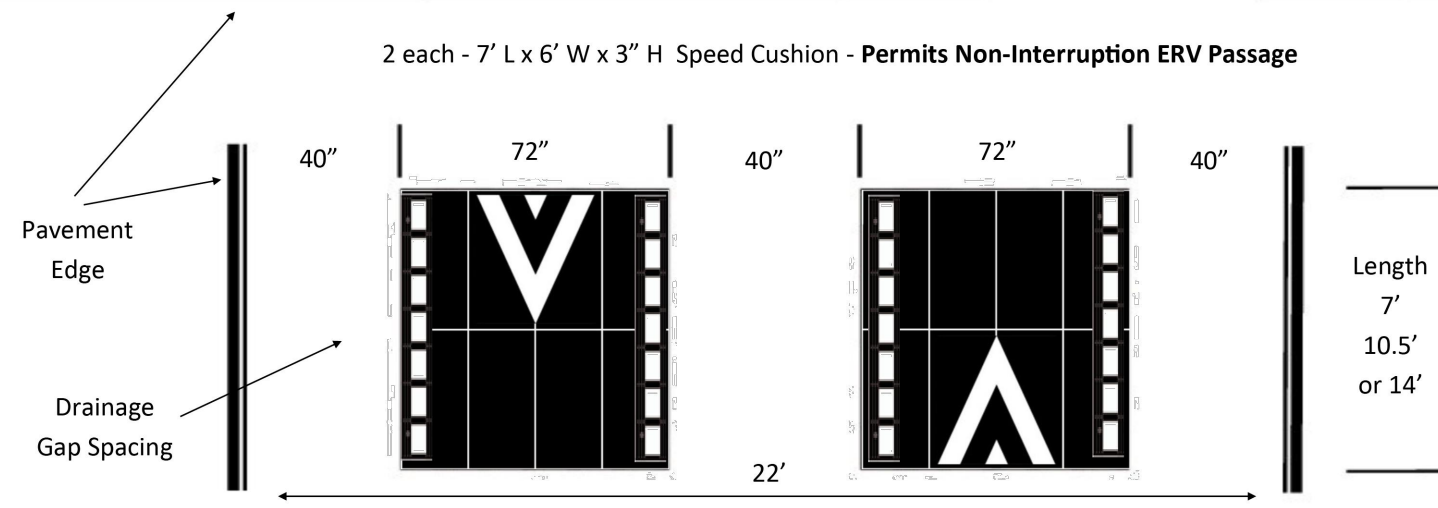
TRAFFIC LOGIX CORP 3 HARRIET LANE SPRING VALLEY, NY 10977

**Suggested Layout 22' Roadway**

**Modified MUTCD Pattern**

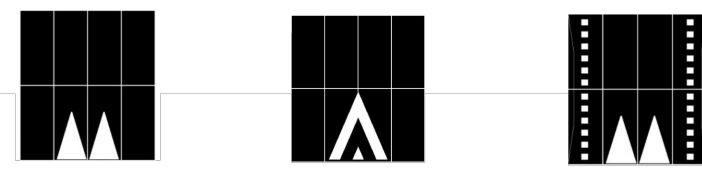


2 each - 7' L x 6' W x 3" H Speed Cushion - Permits Non-Interruption ERV Passage



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Various cushion marking patterns are available



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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
**SPEED CUSHION DETAIL SHT 2**

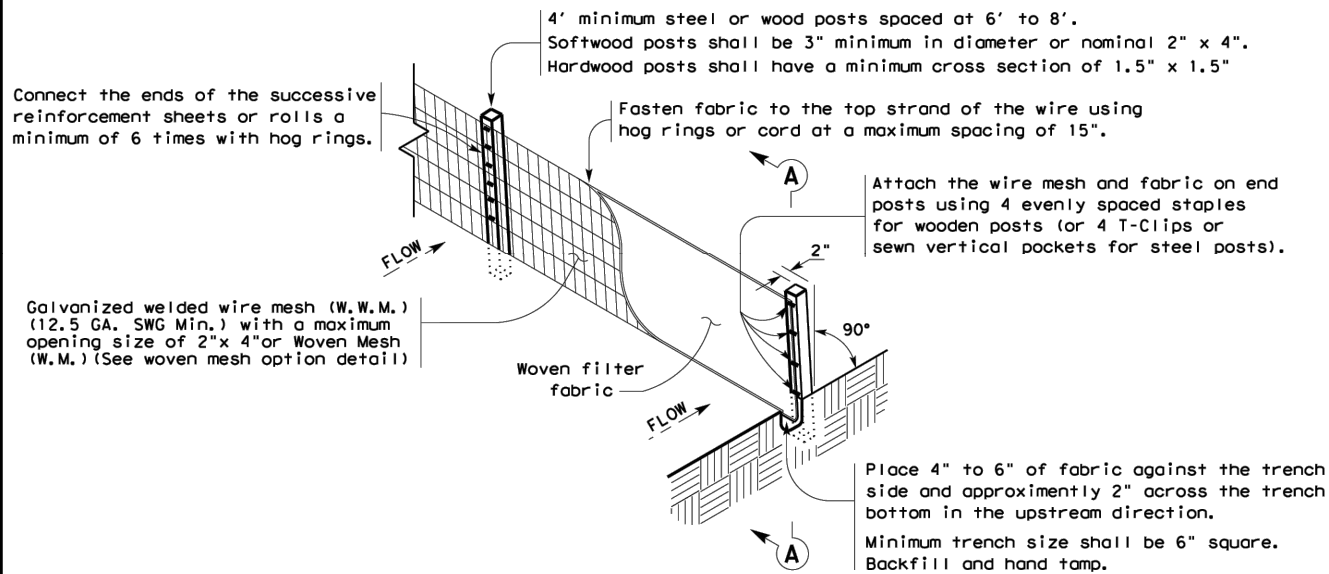
JOB: 154-102  
DATE: 2024/07/17  
DRAWN: TN PM: MN  
DESIGN: DM:  
PEER: OTHER:

REVISIONS:	
DELTA	DESCRIPTION



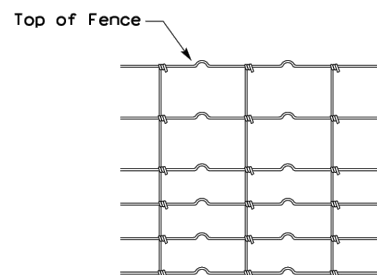
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DATE  
FILE



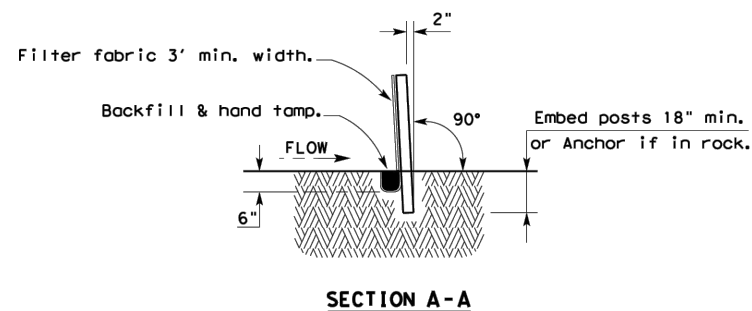
**TEMPORARY SEDIMENT CONTROL FENCE**

SCF



**HINGE JOINT KNOT WOVEN MESH (OPTION) DETAIL**

Galvanized hinge joint knot woven mesh (12.5 GA. SWG Min.) requires a minimum of five horizontal wires spaced at a maximum of 12 inches apart and all vertical wires spaced at a maximum of 12 inches apart.



**SEDIMENT CONTROL FENCE USAGE GUIDELINES**

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a maximum flow through rate of 100 GPM/FT<sup>2</sup>. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

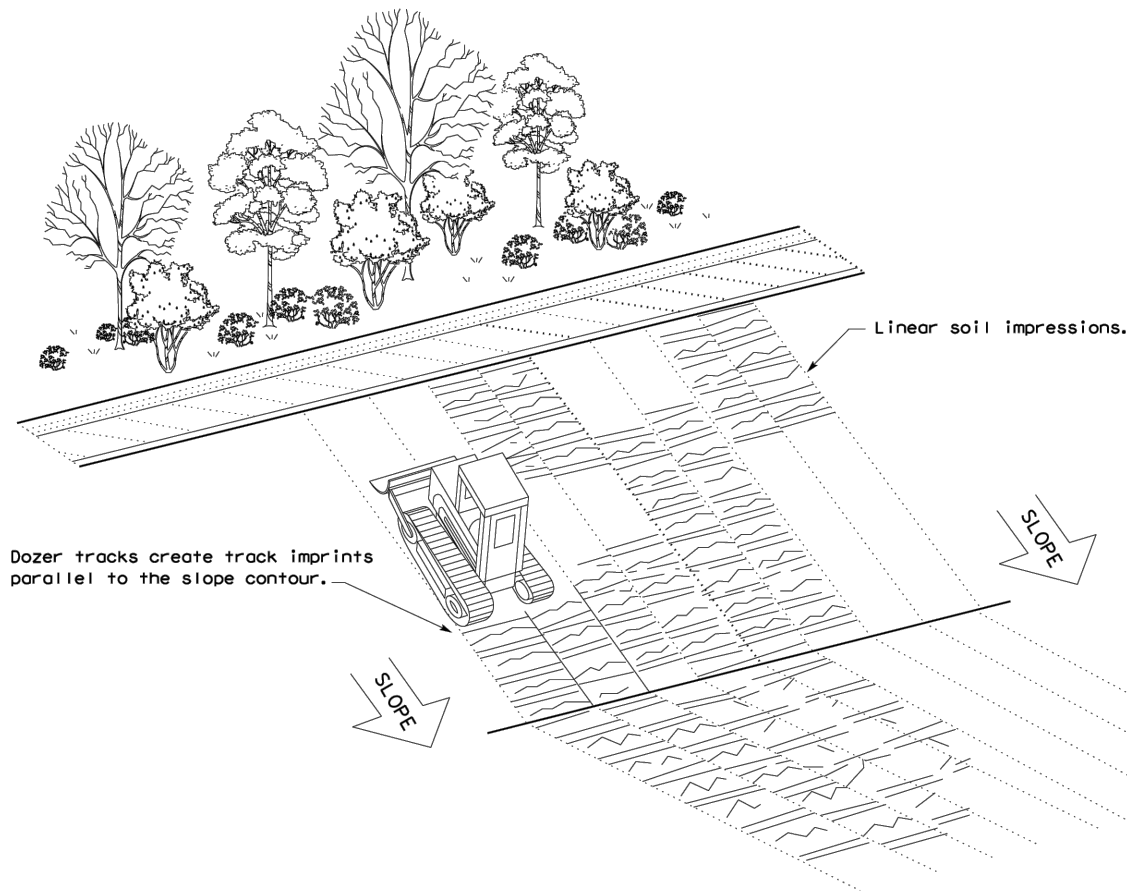
**LEGEND**

Sediment Control Fence

SCF

**GENERAL NOTES**

1. Vertical tracking is required on projects where soil distributing activities have occurred unless otherwise approved.
2. Perform vertical tracking on slopes to temporarily stabilize soil.
3. Provide equipment with a track undercarriage capable of producing linear soil impressions measuring a minimum of 12" in length by 2" to 4" in width by 1/2" to 2" in depth.
4. Do not exceed 12" between track impressions.
5. Install continuous linear track impressions where the minimum 12" length impressions are perpendicular to the slope or direction of water flow.



**TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES FENCE & VERTICAL TRACKING EC(1)-16**

FILE: ec116	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY	SHEET NO.	

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CITY OF WOODCREEK  
2024 SAFETY ENHANCEMENT PROGRAM  
EROSION CONTROL DETAIL

JOB: 154-102	
DATE: 2024/07/17	
DRAWN: TN	PM: MN
DESIGN: DM	OTHER:
PEER:	OTHER:
REVISIONS:	
DELTA	DESCRIPTION

SHEET:  
C3.07