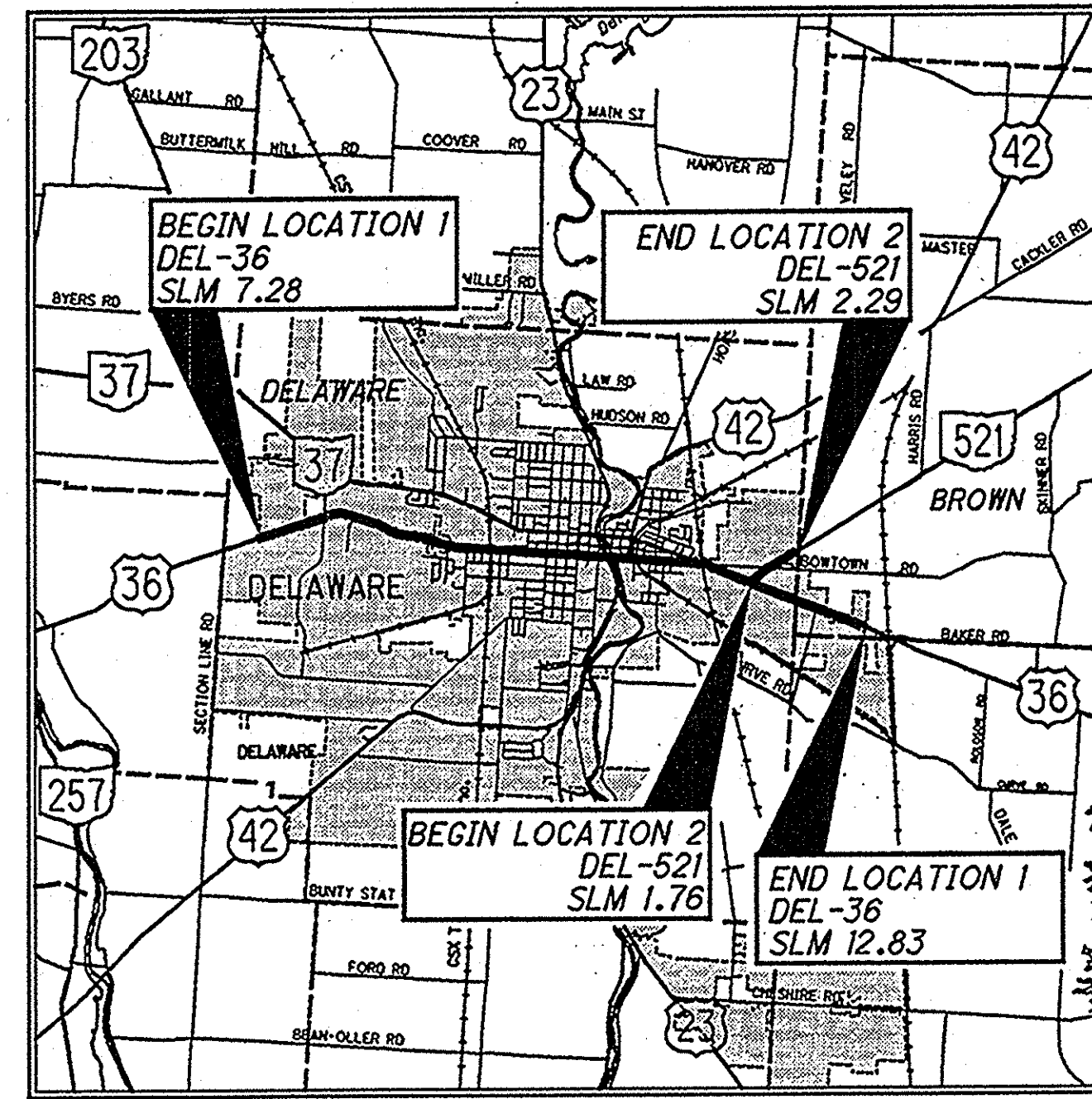


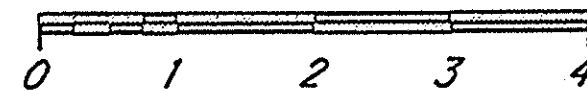
STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
DEL-36-7.28
DEL-521-1.76
 CITY OF DELAWARE
 DELAWARE / BROWN TOWNSHIPS
 DELAWARE COUNTY



LOCATION MAP

LATITUDE 40° 17' 56" LONGITUDE 83° 04' 10"

SCALE IN MILES



PORTION TO BE IMPROVED	=====
INTERSTATE & DIVIDED HIGHWAYS	=====
UNDIVIDED STATE & FEDERAL ROUTES	=====
OTHER ROADS	-----

DESIGN DESIGNATION	DEL-36	DEL-521
CURRENT ADT (2012)	22,090	2,880
DESIGN YEAR ADT (2024)	31,495	4,105
DESIGN HOURLY VOLUME (2024)	1,312	171
DIRECTIONAL DISTRIBUTION	50%	50%
TRUCKS (24 HOUR B&C)	15%	6%
DESIGN SPEED	30 TO 60	30 TO 60
LEGAL SPEED	25 TO 55	25 TO 55
DESIGN FUNCTIONAL CLASSIFICATION:		
	DEL-36: URBAN MINOR ARTERIAL	
	DEL-521: URBAN COLLECTOR	

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PROJECT DESCRIPTION

RESURFACING OF 5.55 MI OF US-36 IN DELAWARE COUNTY BEGINNING AT S.L.M. 7.28 AND CONTINUING THROUGH THE CITY OF DELAWARE AND ENDING AT THE DELAWARE CITY (FAR EAST) CORP.

RESURFACING OF 0.53 MI OF SR-521 IN DELAWARE COUNTY BEGINNING AT THE INTERSECTION OF US-36 AND CONTINUING THROUGH THE CITY OF DELAWARE AND ENDING AT THE DELAWARE CITY CORP.

EARTH DISTURBED AREA:

PROJECT EARTH DISTURBED AREA	N/A *
EST. CONTRACTOR EARTH DISTURBED AREA	N/A *
NOTICE OF INTENT EARTH DISTURBED AREA	N/A *

* MAINTENANCE PROJECT

2010 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS PROJECT.

I HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

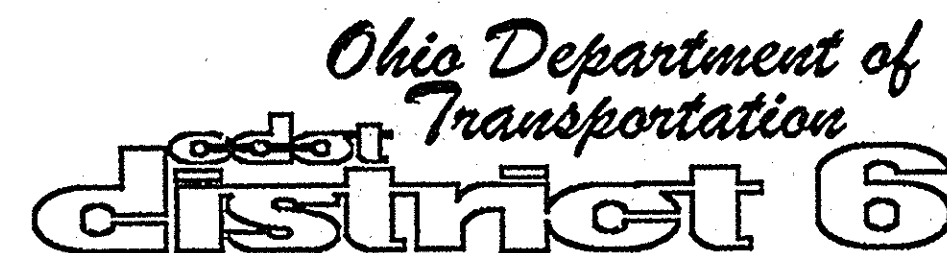
UNDERGROUND UTILITIES
 CONTACT BOTH SERVICES
 CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
 SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:



ENGINEERS SEAL:

STATE OF OHIO
 REGISTERED PROFESSIONAL ENGINEER
STEVEN D FELLEGER
 #71781

SIGNED: *Steven D Felleger*
 DATE: 1/13/2012

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	10/19/07	MT-99.50	10/18/02	800-2010	01/20/12
BP-9.1	04/15/05	MT-101.90	10/21/11	832	05/05/09
MT-35.10	04/20/01	MT-102.20	09/05/06		
MT-95.30	07/17/09	MT-105.10	01/16/09		
MT-95.31	07/17/09	TQ-41.20	01/19/01		
MT-95.32	07/17/09	TQ-52.10	01/19/07		
MT-95.50	09/05/06	TQ-52.20	01/19/07		
MT-97.12	10/15/10	TQ-65.10	01/21/05		
MT-98.10	07/17/09	TQ-65.11	01/21/05		
MT-98.11	07/17/09	TQ-71.10	01/21/11		
MT-98.20	07/17/09	TQ-73.10	01/19/01		
MT-98.22	07/17/09	TQ-82.10	01/21/11		
MT-98.28	07/17/09				
MT-98.29	07/17/09				
MT-99.20	01/16/09				

PLANS CERTIFIED BY:
 NAME: *Richard Kinnell* DATE: 1/13/2012
 DISTRICT 6
 OHIO DEPT. OF TRANSPORTATION

APPROVED *[Signature]*
 DISTRICT DEPUTY DIRECTOR
 DATE 1-13-12

APPROVED *[Signature]*
 DIRECTOR, DEPARTMENT OF TRANSPORTATION
 DATE 2-11-11

FEDERAL PROJECT NO. E100 (759)
 PID NO. 88636
 CONSTRUCTION PROJECT NO.
 RAILROAD INVOLVEMENT
 CSX TRANSPORTATION INC.
 DEL-36-7.28
 DEL-521-1.76
 1/93

07-FEB-2012 1:09PM rkinnell
 DEL-US-36-7.28; DEL-521-1.76
 120209 PID - 88636
 Dist 6 4/12/2012
 Contract Proposal available @
 www.contracts.dot.state.oh.us/home
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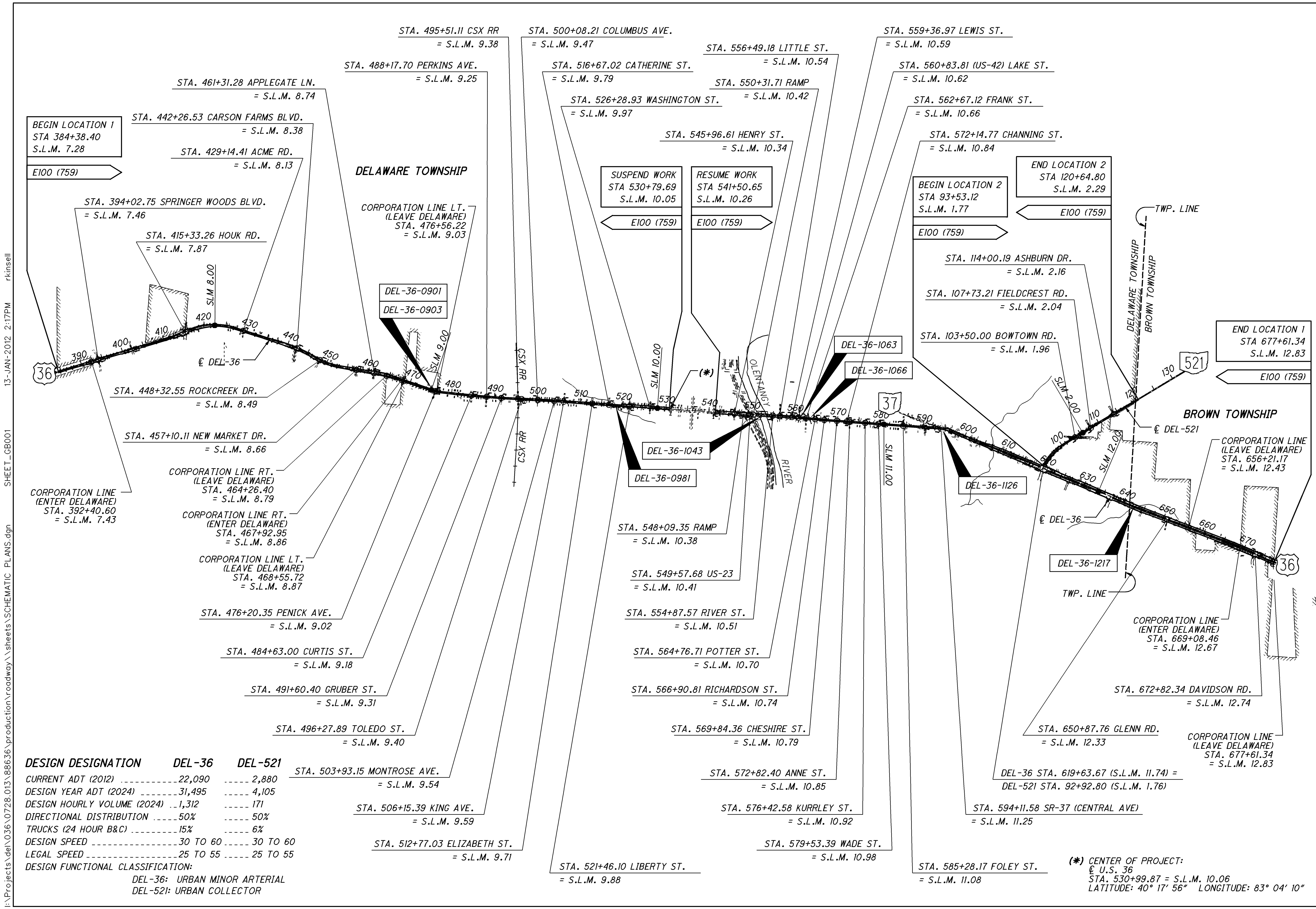


0 500 1000 2000
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

SCHEMATIC PLAN

**DEL-36-7.28
DEL-521-1.76**



BEGIN LOCATION 1
STA 384+38.40
S.L.M. 7.28

E100 (759)

36

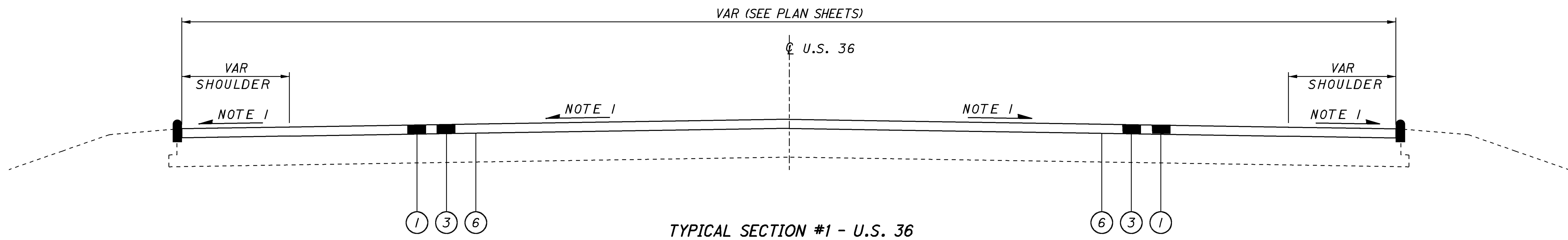
CORPORATION LINE
(ENTER DELAWARE)
STA. 392+40.60
= S.L.M. 7.43

DESIGN DESIGNATION	DEL-36	DEL-521
CURRENT ADT (2012)	22,090	2,880
DESIGN YEAR ADT (2024)	31,495	4,105
DESIGN HOURLY VOLUME (2024)	1,312	171
DIRECTIONAL DISTRIBUTION	50%	50%
TRUCKS (24 HOUR B&C)	15%	6%
DESIGN SPEED	30 TO 60	30 TO 60
LEGAL SPEED	25 TO 55	25 TO 55
DESIGN FUNCTIONAL CLASSIFICATION:		
	DEL-36: URBAN MINOR ARTERIAL	
	DEL-521: URBAN COLLECTOR	

(*) CENTER OF PROJECT:
 @ U.S. 36
 STA. 530+99.87 = S.L.M. 10.06
 LATITUDE: 40° 17' 56" LONGITUDE: 83° 04' 10"

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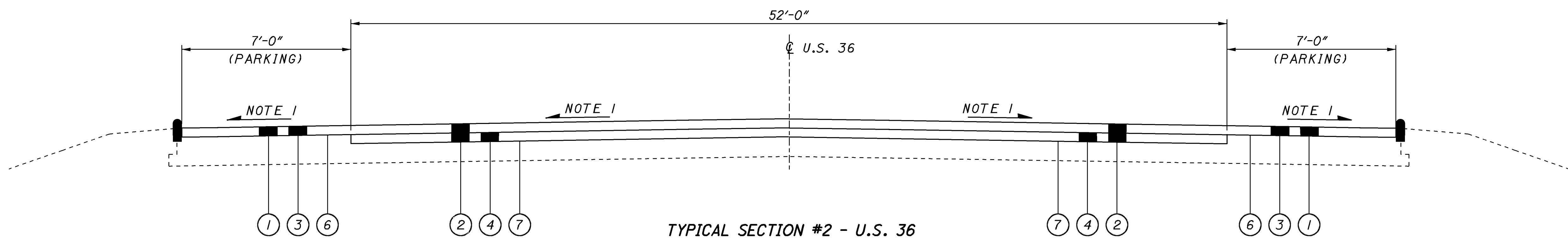
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TYPICAL SECTION #1 - U.S. 36

SECTION APPLIES TO THE FOLLOWING STATIONS:

DEL 36	STA. 384+38.40	TO	STA. 530+77.69	=	14,639.29 FT
DEL 36	STA. 545+58.78	TO	STA. 549+80.88	=	422.10 FT
DEL 36	STA. 554+13.67	TO	STA. 603+98.00	=	4,984.33 FT
			TOTAL	=	20,045.72 FT



TYPICAL SECTION #2 - U.S. 36

SECTION APPLIES TO THE FOLLOWING STATIONS:

DEL 36	STA. 541+50.65	TO	STA. 545+58.78	=	408.13 FT
			TOTAL	=	408.13 FT

LEGEND:

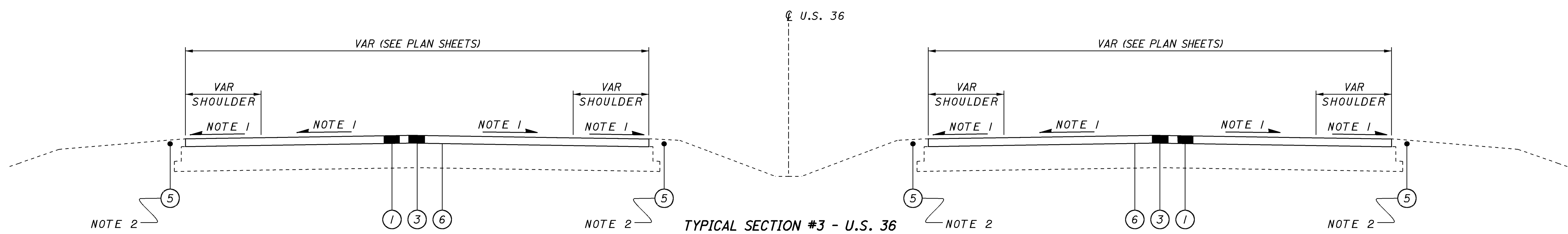
- ① ITEM 254 - (1.5") PAVEMENT PLANING, ASPHALT CONCRETE
- ② ITEM 254 - (3.0") PAVEMENT PLANING, ASPHALT CONCRETE
- ③ ITEM 442 - (1.5") ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN (FOR SURFACE)
- ④ ITEM 442 - (1.5") ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN (FOR INTERMEDIATE)
- ⑤ ITEM 617 - (1 1/2" AVG) COMPACTED AGGREGATE
- ⑥ ITEM 690 - SPECIAL - MISC.: TRACKLESS TACK COAT @ 0.075 GAL/SQ YD
- ⑦ ITEM 690 - SPECIAL - MISC.: TRACKLESS TACK COAT @ 0.05 GAL/SQ YD

NOTES:

- NOTE 1:
PROPOSED PAVEMENT CROSS SLOPES AT THIS LOCATION TO REMAIN SAME AS EXISTING.
- NOTE 2:
COMPACTED AGGREGATE AVERAGE WIDTH IS 2'. SEE PLAN SHEETS FOR EXACT LOCATIONS OF THIS ITEM.

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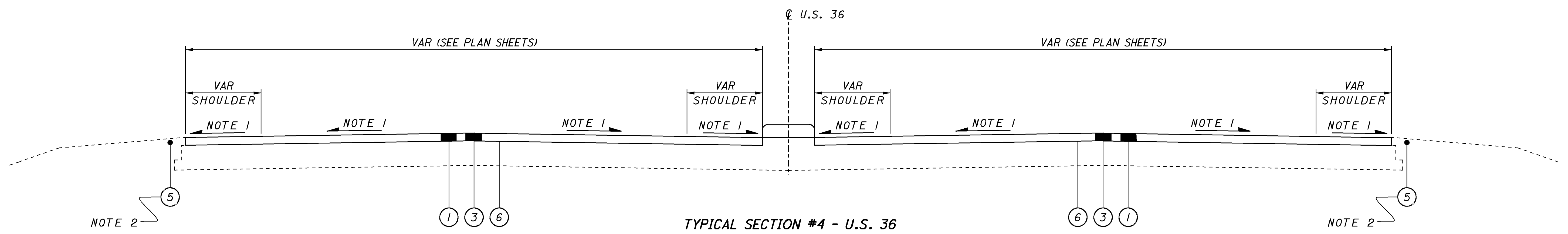
CALCULATED
CHECKED



TYPICAL SECTION #3 - U.S. 36

SECTION APPLIES TO THE FOLLOWING STATIONS:

DEL 36	STA. 603+98.00	TO	STA. 615+67.45	=	1,169.45 FT
DEL 36	STA. 621+83.00	TO	STA. 637+25.00	=	1,542.00 FT
DEL 36	STA. 639+88.00	TO	STA. 673+47.00	=	3,359.00 FT
DEL 36	STA. 676+93.24	TO	STA. 677+61.34	=	68.10 FT
				TOTAL	= 6,138.55 FT



TYPICAL SECTION #4 - U.S. 36

SECTION APPLIES TO THE FOLLOWING STATIONS:

DEL 36	STA. 615+67.45	TO	STA. 621+83.00	=	615.55 FT
DEL 36	STA. 637+25.00	TO	STA. 639+88.00	=	263.00 FT
DEL 36	STA. 673+47.00	TO	STA. 676+93.24	=	346.24 FT
				TOTAL	= 1,224.79 FT

LEGEND:

- ① ITEM 254 - (1.5") PAVEMENT PLANING, ASPHALT CONCRETE
- ② ITEM 254 - (3.0") PAVEMENT PLANING, ASPHALT CONCRETE
- ③ ITEM 442 - (1.5") ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN (FOR SURFACE)
- ④ ITEM 442 - (1.5") ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN (FOR INTERMEDIATE)
- ⑤ ITEM 617 - (1 1/2" AVG) COMPACTED AGGREGATE
- ⑥ ITEM 690 - SPECIAL - MISC.: TRACKLESS TACK COAT @ 0.075 GAL/SQ YD
- ⑦ ITEM 690 - SPECIAL - MISC.: TRACKLESS TACK COAT @ 0.05 GAL/SQ YD

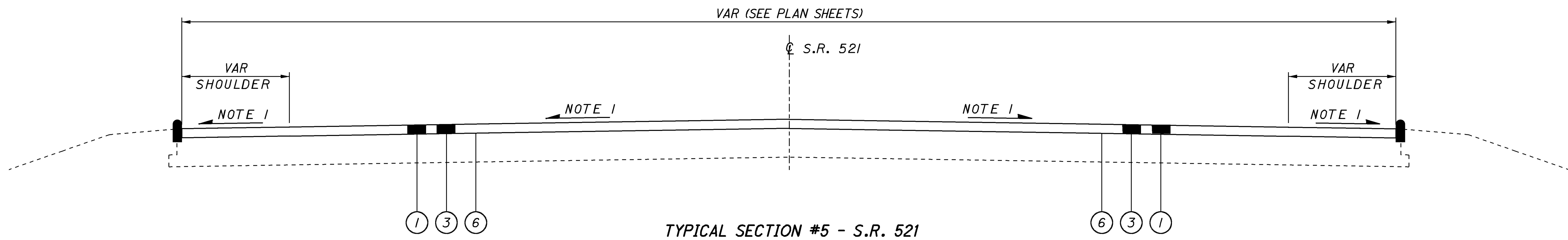
NOTES:

- NOTE 1:
PROPOSED PAVEMENT CROSS SLOPES AT THIS LOCATION TO REMAIN SAME AS EXISTING.
- NOTE 2:
COMPACTED AGGREGATE AVERAGE WIDTH IS 2'. SEE PLAN SHEETS FOR EXACT LOCATIONS OF THIS ITEM.

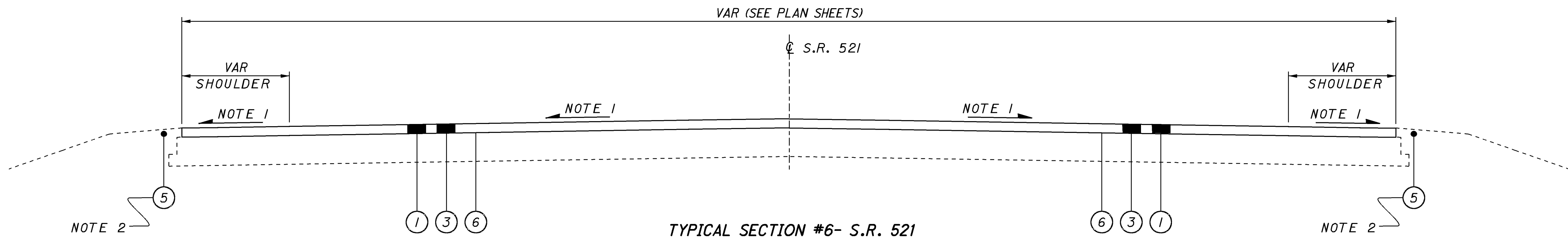
TYPICAL SECTIONS

**DEL-36-7.28
DEL-521-1.76**

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TYPICAL SECTION #5 - S.R. 521
 SECTION APPLIES TO THE FOLLOWING STATIONS:
 DEL 521 STA. 94+00.00 TO STA. 97+49.11 = 349.11 FT
 TOTAL = 349.11 FT



TYPICAL SECTION #6- S.R. 521
 SECTION APPLIES TO THE FOLLOWING STATIONS:
 DEL 521 STA. 97+49.11 TO STA. 120+64.80 = 2,315.69 FT
 TOTAL = 2,315.69 FT

LEGEND:

- ① ITEM 254 - (1.5") PAVEMENT PLANING, ASPHALT CONCRETE
- ② ITEM 254 - (3.0") PAVEMENT PLANING, ASPHALT CONCRETE
- ③ ITEM 442 - (1.5") ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN (FOR SURFACE)
- ④ ITEM 442 - (1.5") ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN (FOR INTERMEDIATE)
- ⑤ ITEM 617 - (1 1/2" AVG) COMPACTED AGGREGATE
- ⑥ ITEM 690 - SPECIAL - MISC.: TRACKLESS TACK COAT @ 0.075 GAL/SQ YD
- ⑦ ITEM 690 - SPECIAL - MISC.: TRACKLESS TACK COAT @ 0.05 GAL/SQ YD

NOTES:

- NOTE 1:
PROPOSED PAVEMENT CROSS SLOPES AT THIS LOCATION TO REMAIN SAME AS EXISTING.
- NOTE 2:
COMPACTED AGGREGATE AVERAGE WIDTH IS 2'. SEE PLAN SHEETS FOR EXACT LOCATIONS OF THIS ITEM.

CALCULATED	CHECKED
TYPICAL SECTIONS	
DEL-36-7.28 DEL-521-1.76	
5 93	

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NOTIFICATION OF CONSTRUCTION INITIATION

AT LEAST FOURTEEN DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA EMAIL AT d06.pio@dot.state.oh.us AND THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA EMAIL AT d06.mot@dot.state.oh.us OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

GENERAL:

THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF OPERATIONS TO THE ENGINEER (SEE 108.02) AND RECEIVE APPROVAL IN WRITING BEFORE WORK IS STARTED ON THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ALIGNMENT AND PROFILE:

THE WORK PROPOSED BY THIS PROJECT IS FOR THE RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT OF THE EXISTING PAVEMENT WILL NOT BE CHANGED, AND THE PROFILE OF THE PROPOSED SURFACE WILL BE SIMILAR TO THAT OF THE EXISTING PAVEMENT.

CONTRACTORS EQUIPMENT - OPERATION AND STORAGE:

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. EQUIPMENT SHALL HAVE AT LEAST ONE AMBER FLASHING LIGHT. WHEN PARKED ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE LOCATED EITHER A MINIMUM OF THIRTY FEET FROM THE EDGE OF PAVEMENT OR SIX FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT AN APPROVED CONTRACTOR'S STORAGE AREA.

CONTINGENCY QUANTITIES:

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

WORK LIMITS:

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PART-WIDTH CONSTRUCTION:

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

FIRE HYDRANTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS AND FEES THAT ARE REQUIRED FOR THE USE OF ANY FIRE HYDRANTS. A SIAMESE VALVE IS TO BE USED ON THE HYDRANT OUTLET IF A HOSE IS TO BE LEFT CONNECTED AND UNATTENDED.

DRAINAGE AT INTERSECTING STREETS:

AT INTERSECTING STREETS WHERE THE DRAINAGE IS TOWARD OR INTO THE PROJECT, SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO MAINTAIN PROPER GRADE ALONG THE EDGE OF PAVEMENT SO THAT WATER WILL NOT POND. AT INTERSECTING STREETS, WHERE THE EDGE OF PAVEMENT CONTINUES ACROSS THE STREET, CARE SHALL BE TAKEN TO FEATHER DOWN AND FORM A NEAT SEAM WITH THE PROPER GRADE.

FUNDING SPLITS:

STP RURAL PAVING (80% FEDERAL / 20% STATE)
STP URBAN PAVING (80% FEDERAL / 20% LOCAL)
NHS URBAN PAVING (80% FEDERAL / 20% LOCAL)
NHS RURAL PAVING (80% FEDERAL / 20% STATE)
CITY OF DELAWARE (100% LOCAL)

TREES AND OVERHEAD INTERFERENCES:

THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL TREES, OVERHEAD LINES AND TRAFFIC SIGNALS. IN SOME CASES IT MAY BE NECESSARY TO ADJUST EQUIPMENT HEIGHTS TO MAKE CLEARANCE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING VENT STACK DEFLECTORS TO PREVENT DAMAGE TO STREET TREES FROM HOT EXHAUST FROM THE MILLING MACHINES.

LOCAL NOISE ORDINANCE:

IN AN EFFORT TO MINIMIZE NOISE DURING CONSTRUCTION, ALL CONSTRUCTION EQUIPMENT OPERATION MUST CONFORM TO ANY AND ALL PERTINENT LOCAL NOISE ORDINANCES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE IF THERE ARE ANY PERTINENT LOCAL NOISE ORDINANCES, AND, IF THERE ARE ANY, TO ENSURE THAT THEY ARE COMPLIED WITH THROUGHOUT THE CONSTRUCTION OF THIS PROJECT.

PAVING AT RAILROAD CROSSING:

WORK THE CROWN OUT OF THE PROPOSED PAVEMENT ON EACH SIDE OF THE RAILROAD CROSSING, BEGINNING 50 FEET [15 METERS] FROM THE NEAREST RAIL, BY RAISING THE EDGES OF THE NEW PAVEMENT TO MEET THE PLATFORM ELEVATION. THE CONTRACTOR SHALL NOTIFY THE CSX TRANSPORTATION, INC. AT LEAST 15 DAYS IN ADVANCE OF STARTING ANY WORK WHICH MIGHT REQUIRE PROTECTION (FLAGMAN).

EXISTING MAILBOXES AND MAILBOX POSTS:

GREAT CARE SHALL BE TAKEN TO PREVENT DAMAGE TO ANY OF THE EXISTING MAILBOXES OR MAILBOX POSTS DURING THE PAVING OPERATIONS. ANY MAILBOX OR MAILBOX POST WHICH BECOMES DAMAGED BY THE CONTRACTOR'S PAVING OPERATIONS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

REVIEW OF DRAINAGE FACILITIES:

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE OF THE PROJECT BY THE STATE, REPRESENTATIVES OF THE STATE, THE CONTRACTOR, AND THE CITY OF DELAWARE SHALL INSPECT ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED, AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER SHALL CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

DRAIN PIPES:

AT ALL DRAIN PIPES LOCATED IN THE CURB AND THAT DRAIN INTO THE GUTTER, SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR SO THAT THESE DRAINS WILL NOT BE CLOSED OR OTHERWISE RENDERED INOPERATIVE. ANY DAMAGE DONE TO THE DRAIN PIPE WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

MANHOLES AND OTHER CASTINGS:

THE CASTING TOPS OF MANHOLES, VALVE BOXES, AND OTHER STRUCTURES OWNED BY PUBLIC SERVICE CORPORATIONS OTHER THAN THE CITY OF DELAWARE WILL BE ADJUSTED TO GRADE BY THEIR RESPECTIVE OWNERS. THE WORK MAY BE DONE PRIOR TO THE CONSTRUCTION OF THE SURFACE COURSE. THE CONTRACTOR SHALL NOTIFY SUCH PUBLIC SERVICE CORPORATIONS AT LEAST ONE WEEK IN ADVANCE OF WORK OPERATIONS SO THAT WORK MAY BE PROPERLY SCHEDULED.

WATER VALVES ON PLANED STREETS:

BEFORE ANY MILLING BEGINS ON A STREET, THE PROJECT ENGINEER WILL IDENTIFY ALL THE WATER VALVE CASTINGS BY MARKING THE CASTINGS OR CREATING A LIST OF THE CASTINGS THAT WILL NEED TO BE ADJUSTED TO GRADE AFTER THE RESURFACING IS COMPLETE, ANY CASTINGS THAT NEED TO BE ADJUSTED TO GRADE THAT WERE NOT IDENTIFIED TO BE RAISED PRIOR TO THE RESURFACING SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE THIS DOES NOT APPLY TO BURIED WATER VALVES.

BURIED WATER VALVES:

THE CITY OF DELAWARE MUST APPROVE IN WRITING ANY BURIED WATER VALVES TO BE ADJUSTED TO GRADE BY THE CONTRACTOR. IF THE CONTRACTOR RAISES ANY BURIED WATER VALVES WITHOUT WRITTEN APPROVAL FROM THE CITY OF DELAWARE THE WORK COMPLETED WILL BE AT THE CONTRACTOR'S EXPENSE.

CALCULATED
CHECKED

GENERAL NOTES

DEL-36-7.28
DEL-521-1.76

6
93

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VALVE BOXES:

THE MINIMUM DIMENSION FOR SAW CUTTING THE PROPOSED VALVE BOX IS TWO FEET (WIDTH) BY FOUR FEET (LENGTH) ALL SAW CUTTING NECESSARY TO PERFORM THIS TASK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR THE ITEM NECESSITATING THE WORK. THE PRICE SHALL INCLUDE ALL SERVICES, MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

ALL CASTINGS THAT ARE IN THE PROCESS OF BEING RAISED SHALL BE PLATED OR OTHERWISE BE MADE SUITABLE TO CARRY TRAFFIC DURING NON - WORKING HOURS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO POINT OUT ANY ADDITIONAL MANHOLES AND WATER VALVES TO THE PROJECT ENGINEER THAT ARE OUT OF TOLERANCE PRIOR TO MILLING OR THE COST OF ADJUSTING THESE WILL BE AT THE CONTRACTOR'S EXPENSE.

A TOLERANCE OF MINUS 1/2" WILL BE THE ACCEPTED TOLERANCE ON ALL MANHOLES AND WATER VALVES ADJUSTED TO GRADE PRIOR TO THE RESURFACING PROCESS. A TOLERANCE OF MINUS 1/4" WILL BE THE ACCEPTED TOLERANCE ON ALL MANHOLES AND WATER VALVES ADJUSTED TO GRADE AFTER THE RESURFACING PROCESS AS PART OF THIS CONTRACT.

WATER QUALITY PROTECTION:

NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO ANY STREAMS, DRAINAGE COURSES, OR BODIES OF WATER. ALL ASPHALT OR CONCRETE GRINDINGS, EXCESS ASPHALTIC OR CONCRETE MATERIALS OR ANY OTHER DEBRIS GENERATED DURING RESURFACING OR OTHER SIMILAR ACTIVITIES SHALL BE NOT BE DISPOSED OF WITHIN A FLOOD PLAIN BELOW THE 100-YEAR FLOOD ELEVATION. THE CONTRACTOR SHALL TAKE GREAT CARE AND ALL PRECAUTIONS NECESSARY TO PREVENT THE CONTAMINATION OF THE PUBLIC DRINKING WATER SUPPLY, ALL PROJECT RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER AND ALL PRECAUTIONS NECESSARY TO PREVENT LIQUIDS USED TO REPAIR, CLEAN, SEAL, OR TREAT ANY BRIDGE STRUCTURE (I.E. PAINT, SEALER, SOLVENT) FROM ENTERING STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE. THE CONTRACTOR IS REQUIRED AND SHALL BE HELD RESPONSIBLE FOR THE CLEAN UP AND REMEDIATION OF ANY AND ALL SPILLS.

WATERSHED PROTECTION:

IT IS ESSENTIAL THAT ALL ACTIVITIES ASSOCIATED WITH THIS WORK BE PERFORMED IN A MANNER CONSISTENT WITH BEST WATERSHED MANAGEMENT PRACTICES INCLUDING, BUT NOT LIMITED TOO.

AREAS OF DISTURBED GROUND SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. IF HAZARDOUS/TOXIC MATERIALS INCLUDING BUT NOT LIMITED TO FUELS, OILS, BITUMEN'S PAINTS, SEALANTS, OR OTHER CHEMICALS, ARE STORED ON SITE, THEY SHALL BE STORED IN A DOUBLE-CONTAINMENT MANNER. ALL EQUIPMENT REPAIRS, MAINTENANCE, AND MECHANICAL WORK THAT COULD RESULT IN THE RELEASE OF HAZARDOUS/TOXIC MATERIALS SHALL BE PERFORMED IN AN APPROPRIATELY CONTAINED AREA, PREFERABLY OFF SITE OR AN APPROPRIATE OFF-SITE FACILITY.

IN THE EVENT THAT ANY HAZARDOUS/TOXIC MATERIALS INCLUDING, BUT NOT LIMITED TO FUELS, OILS, BITUMEN'S PAINTS, SEALANTS, OR OTHER CHEMICALS ARE SPILLED INTO OLENTANGY RIVER OR ANY OTHER WATERCOURSES OR ON ANY GROUND SURFACES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY EMERGENCY SERVICES BY CALLING 911, THE OHIO EPA @ (800)282-9378, DEL-CO WATER @ (740)548-7746. THE CONTRACTOR SHOULD BE PREPARED TO PROVIDE DETAILED INFORMATION RELATIVE TO THE TYPE AND QUANTITY OF MATERIAL THAT HAS BEEN SPILLED AS WELL AS THE EXACT LOCATION AND THE EXACT TIME AT WHICH THE SPILL OCCURRED.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INFORMING ALL SUBCONTRACTORS AND OTHER AGENTS OF THESE RESPONSIBILITIES, PRECAUTIONS, AND PROHIBITIONS.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN:

ALL REPAIR AREAS SHALL BE DETERMINED BY THE PROJECT ENGINEER BEFORE THE BEGINNING OF THE PROJECT. ANY WORK, WHICH IS DETERMINED TO BE NECESSARY BY THE PROJECT ENGINEER, SHALL BE PERFORMED AFTER THE PERFORMANCE OF ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE AS PER PLAN AND BEFORE THE PLACEMENT OF ANY ASPHALT CONCRETE SURFACE COURSE. THE REPAIR AREAS SHALL BE OF VARYING LENGTH AND SHALL HAVE AN AVERAGE WIDTH OF NOT LESS THAN 4 FEET. THE AVERAGE DEPTH OF EACH REPAIR SHALL BE 4 INCHES. ALL AREAS SHALL BE REFILLED WITH AN EQUAL AMOUNT OF ITEM 301 - ASPHALT CONCRETE BASE.

NO MORE PARTIAL PAVEMENT REPAIR, AS PER PLAN SHALL BE STARTED AND PERFORMED THAN CAN BE COMPLETED IN THE SAME WORKING DAY AND ALL REPAIRED AREAS ARE TO BE INCLUDED INTO THE GENERAL RESURFACING.

AS DIRECTED BY THE PROJECT ENGINEER = 200 SQ YD

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE:

THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE CONTRACTORS EQUIPMENT THAT MAY RESULT FROM THE PLANING OPERATION, INCLUDING DAMAGE CAUSED BY CASTINGS AND LOOP DETECTORS. THE DEPTH OF PLANING CLOSE TO THE CASTINGS SHALL BE AS DIRECTED IN ORDER TO ACHIEVE A SMOOTH RIDING FINISHED PAVEMENT. GREAT CARE SHALL BE TAKEN TO PREVENT THE REMOVAL OF THE EXISTING PAVEMENT CROSS-SLOPE (CROWN), INTERSECTION CROSS-SLOPES (CROWN) AS WELL AS ALL LONGITUDINAL SLOPES WITHIN THE EXISTING CROSSWALKS DURING THE PLANING OPERATIONS.

THE CONTRACTOR SHALL USE CARE WHEN PLANING AROUND EXISTING MANHOLES WITH CONCRETE COLLAR SO AS TO NOT DAMAGE THE EXISTING CONCRETE COLLAR. SHOULD THE CONCRETE COLLAR BE DAMAGED BY THE PLANING OPERATION THE CONTRACTOR SHALL REPLACE THE CONCRETE COLLAR AT HIS EXPENSE.

ITEM 442 - ASPHALT CONCRETE, SURFACE COURSE, 12.5mm, TYPE A (446), AS PER PLAN:

THE 442 ASPHALT MIX SHALL REQUIRE A PG76-22M BINDER.

ITEM 603 - CONDUIT, MISC. INTERNAL JOINT SEAL

THE CONTRACTOR WILL REPAIR THE FAILING JOINTS IN THE CONDUIT AT STA. 475+75 USING AN INTERNAL JOINT SEAL. THE INTERNAL JOINT SEAL WILL BRIDGE THE JOINT WITH A FLEXIBLE RUBBER SEAL AND COMPRESS THE RUBBER SEAL AGAINST THE INSIDE DIAMETER OF THE PIPE ON EITHER SIDE OF THE JOINT WITH EXPANSION BANDS AND LOCKING ASSEMBLY.

THE INTERNAL JOINT SEAL WILL MEET THE FOLLOWING REQUIREMENTS:
EPDM RUBBER SEAL: 10" MINIMUM WIDTH
MINIMUM TENSILE STRENGTH 1,000 PSI ASTM D412
STEEL BANDS: 304 OR 316 STAINLESS STEEL
MINIMUM TENSILE STRENGTH 70,000 PSI

THE CONTRACTOR WILL CLEAN AND REMOVE ALL DIRT AND DEBRIS PRIOR TO INSTALLING THE INTERNAL JOINT SEAL A MINIMUM OF 2 FT. ON EITHER SIDE OF THE FAILING JOINT. THE CONTRACTOR WILL FILL THE VOIDS AND JOINT GAPS WITH GROUT UNTIL THE VOIDS ARE FILLED AND THE GAP IS FLUSH FROM ONE SECTION OF PIPE TO THE OTHER. FURNISH GROUT THAT CONTAINS CEMENT AND WATER, AND POSSIBLY ONE OR MORE OF THE FOLLOWING: FLY ASH, LIME, OR ADMIXTURES. THE CONTRACTOR WILL SECURE THE INTERNAL JOINT SEAL FIRMLY AGAINST ALL EDGES OF THE CONCRETE TO PREVENT ANY SOIL INFILTRATION. THE CONTRACTOR WILL NOT BE REQUIRED TO PERFORM A PRESSURE TEST. THE RUBBER SEALS CAN BE SUPPLIED WITHOUT TEST VALVES.

THE CONTRACTOR CAN SUPPLY AN INTERNAL JOINT SEAL FROM: WEKO-SEAL, NPC INTERNAL SEAL, HYDRATITE SEAL OR AN APPROVED EQUAL.

THE INTERNAL JOINT SEAL WILL BE INSTALLED AS NOTED AND PER THE REQUIREMENTS OF THE MANUFACTURER. THE INTERNAL JOINT SEAL, LABOR, EQUIPMENT AND ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK TO BE INCLUDED IN:

ITEM 603 - CONDUIT MISC.: INTERNAL JOINT SEAL = 5 EACH

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ITEM 604 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN:

THE CASTING TOPS OF MANHOLES, VALVE BOXES, AND OTHER STRUCTURES OWNED BY PUBLIC SERVICE CORPORATIONS OTHER THAN THE CITY OF DELAWARE WILL BE ADJUSTED TO GRADE BY THEIR RESPECTIVE OWNERS. THE WORK MAY BE DONE PRIOR TO THE CONSTRUCTION OF THE SURFACE COURSE. THE CONTRACTOR SHALL NOTIFY SUCH PUBLIC SERVICE CORPORATIONS AT LEAST ONE WEEK IN ADVANCE OF WORK OPERATIONS SO THAT WORK MAY BE PROPERLY SCHEDULED. CASTINGS OWNED BY THE CITY OF DELAWARE SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR. THESE INCLUDE SEWER, WATER, AND TRAFFIC MANHOLES. HOWEVER, ANY ADDITIONAL CASTINGS IDENTIFIED DURING THE VARIOUS CONSTRUCTION OPERATIONS BY THE PROJECT ENGINEER AND/OR CONTRACTOR SHALL BE RAISED BY THE CONTRACTOR AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THAT RESPECTIVE ITEM.

CITY MANHOLE REHABILITATION STANDARD

THE CONTRACTOR MAY USE AN EXTENSION RING OF THE TYPE APPROVED BY THE CITY OF DELAWARE TO RAISE MANHOLES THESE EXTENSION RINGS SHALL BE SECURED IN PLACE BY ASPHALT MASTIC. PROBLEM SITUATIONS, SUCH AS BROKEN CASTINGS OR CASTINGS FOR WHICH THERE ARE NO RINGS AVAILABLE, WILL BE RESOLVED BY ADJUSTING THE STRUCTURE TO GRADE WITHOUT A RING AFTER THE RESURFACING PROCESS. FOR A CASTING THAT IS ADJUSTED TO GRADE AFTER THE RESURFACING IS COMPLETED, THE CONTRACTOR SHALL REPLACE THE EXISTING ASPHALT SURFACE COURSE WITH 4 INCHES OF PORTLAND CEMENT CONCRETE BASE IN THE EFFECTED AREA. PAYMENT FOR THESE ITEMS IS TO BE INCLUDED IN THE PRICE BID FOR THE RESPECTIVE ITEM 604.

GREAT CARE SHALL BE TAKEN TO MAINTAIN THE EXISTING PAVEMENT CROSS-SLOPE (CROWN), INTERSECTION CROSS-SLOPES (CROWN) AS WELL AS ALL LONGITUDINAL SLOPES WITHIN THE EXISTING CROSSWALKS. THIS IS ESPECIALLY CRITICAL AT CROSSWALKS.

THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AND AS REQUESTED BY THE CITY OF DELAWARE AT VARIOUS LOCATIONS AND PROVIDE AND PROVIDE A ONE FOOT WIDE AND 4 INCHES IN DEPTH CONCRETE COLLAR AROUND THE EXISTING MANHOLE. ANY ADDITIONAL COST FOR ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING MANHOLE TO THE PROPOSED ASPHALT ELEVATION AND PLACE AN ONE FOOT CONCRETE COLLAR AROUND THE EXISTING MANHOLE.

"AS DIRECTED BY THE ENGINEER" = 5 EACH

ITEM 604 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN: = 5 EACH

ITEM 604 - MONUMENT ASSEMBLY:

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE FOLLOWING INTERSECTIONS.

A REGISTERED SURVEYOR FROM DISTRICT 6 SURVEY DEPARTMENT SHALL BE RESPONSIBLE FOR REFERENCING AND VERIFYING THE LOCATIONS OF THE CENTERLINE MONUMENTS. THE CONTRACTOR SHALL NOTIFY THE SURVEY DEPARTMENT (740-833-8250) 48 HOURS PRIOR TO START OF MONUMENT WORK. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL NECESSARY LABOR, MISCELLANEOUS HARDWARE, AND EQUIPMENT REQUIRED FOR PLACEMENT. PAYMENT WILL BE AT CONTRACT BID PRICE PER EACH.

ITEM 604 - MONUMENT ASSEMBLY: = 2 EACH

ITEM 604 - MONUMENT BOX ADJUSTED TO GRADE:

THIS ITEM OF WORK WILL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING MONUMENT BOX TO 1/4 INCH BELOW THE PROPOSED ASPHALT ELEVATION AT THE FOLLOWING LOCATIONS.

BOWTOWN RD AND DEL-521 = 2 EACH

ITEM 617 - COMPACTED AGGREGATE:

THIS ITEM HAS BEEN PROVIDED TO ASSURE THAT THERE IS NO DROP-OFF AND SHALL BE USED AS DIRECTED BY THE PROJECT ENGINEER.

ITEM 617 - WATER:

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS DIRECTED BY THE PROJECT ENGINEER.

STP RURAL PAVING (80% FEDERAL / 20% STATE) = 0.25 M/GAL.
STP URBAN PAVING (80% FEDERAL / 20% LOCAL) = 0.25 M/GAL.
NHS URBAN PAVING (80% FEDERAL / 20% LOCAL) = 1 M/GAL.
NHS RURAL PAVING (80% FEDERAL / 20% STATE) = 0.5 M/GAL.

ITEM 617 - WATER: = 2 M/GAL.

ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN:

THIS ITEM SHALL CONSIST OF STATIONING USING 3 FT LATH STAKES OR PAINT MARKINGS. THE STAKES OR PAINT MARKINGS SHALL BE SPACED AT 200 FT INTERVALS AND EXTEND THROUGHOUT THE LENGTH OF THE PROJECT. PLACEMENT OF THE STAKES OR PAINT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED, MISSING STAKES, OR PAINT MARKINGS. PAINT MARKINGS SHALL BE PLACED ON CURBS AND USED IN AREAS WHERE THE PLACEMENT OF STAKES IS NOT POSSIBLE AND APPROVED BY THE PROJECT ENGINEER.

CONSTRUCTION LAYOUT STAKES, AS PER PLAN WILL BE PAID FOR AT THE CONTRACT LUMP SUM BID, WHICH PRICE SHALL BE FULL COMPENSATION FOR ALL SERVICES, MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS, INCLUDING THE REMOVAL, NECESSARY TO COMPLETE THIS ITEM.

ITEM 632 - LOOP DETECTOR TIE IN:

THIS ITEM SHALL BE USED TO CONNECT AND SPLICE THE PROPOSED LOOP DETECTORS TO THE APPROPRIATE EXISTING LEAD IN CABLE INSIDE THE PULL BOX.

ITEM 632 - DETECTOR LOOP, AS PER PLAN:

THE LOCATIONS, SIZES AND SHAPES OF PROPOSED LOOP DETECTORS WILL BE THE SAME AS EXISTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THE EXISTING LOOP DETECTORS LISTED IN THE PLAN BEFORE THE PAVEMENT PLANING DESTROYS THEM. ALL LOOP WIRE SHALL BE IDENTIFIED WITH A PLASTIC TAG (WBLT, EBRT, ETC.) AT THE SPLICE POINT OR AT ENTRANCE TO THE CONTROL CABINET. WHEN A PULLBOX IS NOT USED, THE SOLDERED SPLICE SHALL BE MADE IN AN ANCHOR BASE, STRAIN POLE OR A CONDUIT RISER SPECIFIED BY THE PROJECT ENGINEER, EXCEPT WHERE A CONTROLLER CABINET IS MOUNTED ON THAT POLE IN WHICH CASE THE LOOP WIRE SHALL BE ROUTED DIRECTLY INTO THE CABINET. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER PRIOR TO THE COMMENCEMENT OF WORK, A COPY OF THE IMSA CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT. ALL DETECTOR LOOPS SHALL BE REPLACED AND FUNCTIONAL WITHIN 48 HOURS OF BEING REMOVED. THE CONTRACTOR SHALL ALSO PROTECT ANY INLET OR CATCH BASIN FROM FOREIGN MATERIAL OR CONSTRUCTION DEBRIS ENTERING THE INLET OR CATCH BASIN WHILE CUTTING DETECTOR LOOPS.

ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHOWN IN THE PLANS SHALL BE THE POWERHEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS CURRENTLY CALLED FOR IN THE PLANS. THE STOP LINE DETECTOR LOOPS SHALL NOT BE WIRED TO ANY OTHER LOOPS AND SHALL HAVE ITS OWN DETECTOR CHANNEL. THE LOCATION OF THESE LOOPS SHALL BE SUCH THAT THE POWERHEAD IS LOCATED AT THE STOP LINE, NOT PAST IT.

ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10.

ALL STOP LINE DETECTION SHALL BE TESTED FOR A BICYCLE TARGET AND ALL DILEMMA DETECTION ZONES SHALL BE TESTED FOR A MOTORCYCLE TARGET.

CITY OF DELAWARE
PUBLIC WORKS - CUSTOMER SERVICE
1-740-203-1810

OHIO DEPARTMENT OF TRANSPORTATION
400 EAST WILLIAM STREET
DELAWARE, OHIO 43015
1-740-833-8332

ITEM 644 - THERMOPLASTIC PAVEMENT MARKING:

ITEM 646 - EPOXY PAVEMENT MARKING:

THE CONTRACTOR SHALL REMOVE PRIOR TO THE PLACEMENT OF ALL PERMANENT PAVEMENT MARKINGS ALL WORK ZONE MARKINGS. THE LOCATIONS, SIZES AND SHAPES OF PROPOSED PAVEMENT MARKINGS WILL BE THE SAME AS EXISTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THE EXISTING PAVEMENT MARKINGS BEFORE THE PAVEMENT PLANING AND RESURFACING OBLITERATES THEM.

PRIOR TO THE PLACEMENT OF ALL PERMANENT PAVEMENT MARKINGS THE CONTRACTOR SHALL NOTIFY THE CITY OF DELAWARE ENGINEER A MINIMUM OF SEVENTY-TWO HOURS (NOT INCLUDING SATURDAY AND SUNDAY) BEFORE PERMANENT MARKINGS ARE TO BE PLACED TO INSPECT AND APPROVE THE PERMANENT PAVEMENT-MARKING LAYOUT.

ANY PAVEMENT MARKING WHICH IS PLACED AT THE WRONG LOCATION SHALL BE REMOVED AND REPLACED AT THE CORRECT LOCATION AT THE CONTRACTORS EXPENSE.

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ITEM 644 - LANE LINE, AS PER PLAN:

ITEM 646 - LANE LINE, AS PER PLAN:

ALL LANE LINE MARKINGS SHALL HAVE A 6" WIDTH.

ITEM 644 - CROSSWALK, AS PER PLAN

THE 24" WHITE LONGITUDINAL LINES SHALL BE PLACED PARALLEL TO THE DIRECTION OF TRAFFIC FLOW. THE PLACEMENT OF 24" WHITE LONGITUDINAL LINES SHALL AVOID THE TRAFFIC WHEEL PATHS.

ITEM 690 - SPECIAL-MISC.: TRACKLESS TACK COAT

ITEM 690 - SPECIAL-MISC.: TRACKLESS TACK COAT FOR INTERMEDIATE COURSE

THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH NTSS-1HM TRACKLESS TACK PRODUCED BY BLACKLIDGE EMULSIONS, INC. MEET ALL REQUIREMENTS OF CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 407 TACK COAT EXCEPT AS NOTED BELOW.

MATERIAL

CONFORM TO THE FOLLOWING TYPICAL PHYSICAL PROPERTIES:

PARAMETER	TEST METHOD	MIN.	MAX.
SAYBOLT FURUL VISCOSITY, SFS @ 25°C	ASTM D88	15	100
STORAGE STABILITY, 24 HRS, %	ASTM D244	N/A	1
STORAGE STABILITY, 5 DAYS, %	ASTM D244	N/A	5
RESIDUE BY DISTILLATION, %	ASTM D244	50	N/A
OIL DISTILLATE, %	ASTM D244	N/A	1
SIEVE TEST, %	ASTM D244	N/A	0.3

TEST ON RESIDUE	TEST METHOD	MIN.	MAX.
PENETRATION, @ 25°C	ASTM D5	N/A	20
SOFTENING POINT RANGE DEG C	ASTM D36	65	N/A
SOLUBILITY, %	ASTM D2042	97.5	N/A
ORIGINAL BINDER DSR@82°C G*/SIN δ,10 RAD/SEC	AASHTO T111	1	N/A

NOTE

PRODUCT SHOULD NOT CONTAIN FILLER SUCH AS CLAY, ETC KEEP FROM FREEZING. SUPPLY CERTIFIED TEST DATA TO THE ENGINEER SHOWING THE MATERIAL SUPPLIED WAS TESTED FOR AND MEETS THE ABOVE PROPERTIES.

EQUIPMENT

ALL REQUIREMENTS OF 407.03 APPLY. SEE MANUFACTURER'S REPRESENTATIVE FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF CATIONIC EMULSION WAS PREVIOUSLY USED.

WEATHER LIMITATIONS

ALL REQUIREMENTS OF 407.04 APPLY.

PREPARATION OF SURFACE

ALL REQUIREMENTS OF 407.05 APPLY.

APPLICATION OF ASPHALT MATERIAL

UNIFORMLY APPLY THE ASPHALT MATERIAL WITH A DISTRIBUTOR PER THE REQUIREMENTS OF 407.06 EXCEPT AS NOTED.

IF PRODUCT IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL.

ALL NOZZLES AND SPRAY PATTERNS SHALL BE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. THE ANGLE OF THE NOZZLE SHOULD A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE, AND DISTRIBUTOR AND NOZZLE SETTINGS.

APPLY AT A RATE OF 0.04 TO 0.08 GALLONS PER SQUARE YARD. RECOMMENDED APPLICATION TEMPERATURE IS 160°F TO 180° F. DO NOT EXCEED 180°F.

DILUTION IS NOT ALLOWED.

THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE WILL APPROVE RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

THE APPLICATION IS CONSIDERED SATISFACTORY WHEN THE MATERIAL IS APPLIED UNIFORMLY WITH NO VISIBLE EVIDENCE OF STREAKING OR RIDGING AND THE APPLICATION RATE IS ±10% OF THE SPECIFIED RATE.

METHOD OF MEASUREMENT

ALL REQUIREMENTS OF 407.07 APPLY.

BASIS OF PAYMENT

ALL REQUIREMENTS OF 407.08 APPLY.

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UNDERGROUND UTILITIES AND UTILITIES OWNERSHIP:

THE IDENTITY AND THE LOCATION OF SOME OF THE EXISTING UNDERGROUND FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN IDENTIFIED. THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO THE OHIO UTILITIES PROTECTION SERVICE, PRODUCERS UNDERGROUND PROTECTION SERVICE, AND OWNERS OF UNDERGROUND FACILITIES THAT ARE NOT MEMBERS OF A REGISTERED PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE ABOVE, MENTIONED NOTICE SHALL BE GIVEN AT LEAST TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION THE FOLLOWING UTILITIES ARE LOCATED WITHIN THE WORK LIMITS OF THE PROJECT AND THE OWNERS SUBSCRIBE TO REGISTERED UNDERGROUND PROTECTION SERVICE.

OHIO UTILITY PROTECTION SERVICE 1-800-362-2764
PRODUCERS UNDERGROUND PROTECTION SERVICE 1-614-587-0486
NON-MEMBERS MUST BE CALLED DIRECTLY.

LISTED BELOW ARE THE KNOWN UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.

AEP
850 TECH CENTER DRIVE
GAHANNA, OH 43230-6605
614.883.6831

AT&T
111 NORTH FOURTH STREET - 8TH FLOOR
COLUMBUS, OH 43215
614.223.7162

CENTURY LINK
441 WEST BROAD STREET
PATASKALA, OH 43062
740.927.8282

CITY OF COLUMBUS
DIVISION OF POWER AND WATER (POWER)
3500 INDIANOLA AVENUE
COLUMBUS, OH 43214
614.645.7534

CITY OF COLUMBUS DIVISION OF SEWERAGE AND DRAINAGE
1250 FAIRWOOD AVENUE
COLUMBUS, OH 43206-3372
614.645.0483

CITY OF COLUMBUS
1820 EAST 17TH AVENUE
COLUMBUS, OH 43219
614.645.7799

CITY OF COLUMBUS TRAFFIC MANAGEMENT SECTION
(INCLUDES ODOT'S TRAFFIC CAMERAS, ETC.)
109 NORTH FRONT STREET
COLUMBUS, OH 43215
614.645.2684/614.645.2685

COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED COURT
COLUMBUS, OH 43231
614.818.2107

CITY OF COLUMBUS DIVISION OF POWER AND WATER (WATER)
910 DUBLIN ROAD
COLUMBUS, OH 43215
614.645.7677

COLUMBUS FIBERNET
1366 DUBLIN ROAD
COLUMBUS, OH 43215
614.274.8100

CONSOLIDATED ELECTRIC COOPERATIVE, INC.
5255 STATE ROUTE 95
P. O. BOX 111
MT. GILEAD, OH 43338-0111
419.947.3055

DEL-CO WATER COMPANY
6658 OLENTANGY RIVER ROAD
DELAWARE, OH 43015
740.548.7746/740.201.0133

LEVEL 3 COMMUNICATIONS
226 NORTH FIFTH - SUITE 100
COLUMBUS, OH 43215
KEN WULF - 614.324.5199/614.286.7393

MARATHON PETROLEUM LLC
539 SOUTH MAIN STREET - ROOM 7642
FINDLAY, OH 45840-3295
419.421.2211

INSIGHT COMMUNICATIONS
3770 EAST LIVINGSTON AVENUE
COLUMBUS, OH 43227
614.338.7069

TIME WARNER CABLE
3760 INTERCHANGE DRIVE
P.O. BOX 2553
COLUMBUS, OH 43216-2553
614.481.5262/614.348.2979

TW TELECOM
250 W OLD WILSON BRIDGE ROAD - SUITE 130
WORTHINGTON, OH 43081
614.255.2127/614.774.3069

WOW! INTERNET - CABLE - PHONE
3765 CORPORATE DRIVE
COLUMBUS, OH 43231
614.948.4653/614.668.7632

XO COMMUNICATIONS
10 WEST BROAD STREET - SUITE 300
COLUMBUS, OH 43215
614.416.1703/614.419.2527

DELAWARE COUNTY REGIONAL SEWER DISTRICT
50 CHANNING STREET
DELAWARE, OH 43015
740.833.2240

SUBURBAN NATURAL GAS, INC.
2626 LEWIS CENTER ROAD
LEWIS CENTER, OH 43035-9206
740.548.2450

CENTURY LINK QCC
700 W MINERAL AVE, UTD2734
LITTLETON, CO 80120-4511
303.992.9931

ODOT TRAFFIC
400 EAST WILLIAM STREET
DELAWARE, OH 43015
740.833.8332

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ITEM 614 - MAINTAINING TRAFFIC:

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION). COPIES ARE AVAILABLE FROM,

THE OHIO DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC,
1980 WEST BROAD STREET
COLUMBUS, OHIO 43223

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY ODOT PERSONNEL. THE CONSTRUCTION INSPECTOR SHALL APPROVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR CONDITION AND LOCATION BEFORE THE CONTRACTOR WILL BE ALLOWED TO BEGIN WORK. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, HIS PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

USE OF STANDARD DRAWINGS

FOR THE PURPOSE OF THIS PROJECT, "MOVING OPERATION" SHALL BE LIMITED TO PAVEMENT MARKING STRIPING.

IT MAY BE NECESSARY TO EXTEND THE ADVANCE WARNING AND BUFFER ZONES BEYOND THE MINIMUM DISTANCES SHOWN ON THE STANDARD DRAWINGS. THIS MAY BE DUE TO HORIZONTAL ALIGNMENT, VERTICAL ALIGNMENT, RAMP LOCATIONS, OR OTHER SIGHT OBSTRUCTIONS. LOCATIONS OF THE TAPER ZONES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER, BUT TAPER LENGTHS MUST MEET THE MINIMUM STANDARDS. TAPERS SHOULD BE PLACED IN TANGENT SECTIONS WHENEVER POSSIBLE. ADDITIONAL YIELD SIGNS MAY BE REQUIRED FOR RAMP WITHIN 1,000 FEET OF A WORK ZONE. PAYMENT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

FOR ANY MULTILANE HIGHWAY, DEVICE SPACING SHALL BE A MAXIMUM OF 40' CENTER ON CENTER IN THE TAPERS AND 80' CENTER ON CENTER IN THE TANGENT SECTIONS.

WORK SITE LIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR, AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

USE OF WEIGHTED CHANNELIZERS

THE WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THIS SECTION. THE WEIGHTED CHANNELIZERS SHALL BE PREDOMINANTLY ORANGE IN COLOR AND SHALL BE MADE OF LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A HANDLE OR LIFTING DEVICE, WHICH EXTENDS ABOVE THE 42" MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZERS SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETRO REFLECTIVE STRIPES 6 INCHES WIDE. EACH WEIGHTED CHANNELIZERS SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NON-RETRO REFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZERS SHALL HAVE A 4-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTILANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATION FOR EITHER DAY OR NIGHT. UPON COMPLETION OF WORK, THE WEIGHTED CHANNELIZERS SHALL BE REMOVED. THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN FOR MORE THAN TWELVE HOURS, SHALL REQUIRE THE USE OF DRUMS OR BARRIERS. WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT.

WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE TANGENT AREA. THE TANGENT AREA IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS. MAXIMUM SPACING OF THE WEIGHTED CHANNELIZERS SHALL BE 40 FEET.

STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS USED SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

URBAN PAVING AREA:

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF THE COMPLETED ASPHALT CONCRETE COURSES. WORK ZONES SHALL BE LIMITED TO A MAXIMUM LENGTH OF 1000 FEET.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW. THE PROJECT ENGINEER SHALL RECEIVE THIS NOTIFICATION PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE BUT IS NOT LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHOULD LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

ITEM OF WORK	DURATION OF CLOSURE	NOTIFICATION DUE TO DIST. 6 COMMUNICATIONS OFFICE
ROAD & RAMP CLOSURES	GREATER THAN 2 WEEKS	14 BUSINESS DAYS PRIOR TO CLOSURE
	GREATER THAN 12 HOURS LESS THAN 2 WEEKS	7 BUSINESS DAYS PRIOR TO CLOSURE
	LESS THAN 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES RESTRICTIONS	GREATER THAN 2 WEEKS	7 BUSINESS DAYS PRIOR TO CLOSURE
	LESS THAN 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME FRAME TABLE.

PERMITTED LANE CLOSURE TIMES

ALL LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR THE ALLOWABLE TIMES SHOWN IN THE PERMITTED LANE CLOSURE TABLE LISTED BELOW. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT SHOWN IN THE UNAUTHORIZED LANE USED TABLE FOR EACH PERIOD OF TIME THAT A LANE REDUCTION, LANE RESTRICTION, RAMP REDUCTION OR RAMP RESTRICTION REMAINS BEYOND THE PERMITTED WORKING HOURS SHOWN IN THE PERMITTED LANE CLOSURE TABLE.

PERMITTED LANE CLOSURE CHART

TIME	CONSTRUCTION WEEKDAY	CONSTRUCTION WEEKEND
HOUR	MON-THU	FRI-SUN
12AM-6AM		
6AM-7PM	NOT PERMITTED	NOT PERMITTED
7PM-12AM		

DISINCENTIVE

THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE UNAUTHORIZED LANE USE TABLE LOCATED BELOW FOR EACH UNIT OF TIME A CRITICAL LANE / RAMP IS CLOSED BY THE CONTRACTOR'S ACTION WHILE NOT OTHERWISE PERMITTED BY THE CONTRACT. THE DISINCENTIVE WILL BE FOR ANY LANE CLOSURES CAUSED BY THE CONTRACTOR DURING TIMES AND LOCATIONS NOT SPECIFICALLY PERMITTED BY THIS CONTRACT. THERE SHALL BE NO WORK PERFORMED, NO LANE REDUCTIONS OR NO LANE RESTRICTIONS OUTSIDE OF THE WORKING HOURS GIVEN WITH IN THIS PLAN.

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC

DEL-36-7.28
DEL-521-1.76

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UNAUTHORIZED LANE USE

THE PERMITTED LANE CLOSURE TIMES PREVIOUSLY LISTED SHALL BE SUBJECT TO DISINCENTIVES AS PER THE UNAUTHORIZED LANE USED TABLE BELOW FOR ANY TIME PERIOD OR PORTION THEREOF IN WHICH THE MINIMUM OF OPEN LANES PER DIRECTION IS VIOLATED.

UNAUTHORIZED LANE USE TABLE

DESCRIPTION OF WORK	TIME PERIOD	DISINCENTIVE AMOUNT PER MINUTE PER LANE
LANE CLOSURE OR LANE REDUCTION	EACH MINUTE / EACH LANE	\$1,000

PERIODS OF NO WORK

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS.

HOLIDAYS

CHRISTMAS
NEW YEARS
MEMORIAL DAY
FOURTH OF JULY
LABOR DAY
THANKSGIVING

SPECIAL EVENTS

DELAWARE COUNTY FAIR "BROWN JUG RACE"

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD.

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 PM FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00 PM FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00 PM MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00 PM TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00 PM WEDNESDAY THROUGH 6:00 AM FRIDAY
THANKSGIVING THURSDAY	5:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00 PM THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00 PM FRIDAY THROUGH 6:00 AM MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA WIDE. SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN ACCORDANCE WITH THE UNAUTHORIZED LANE USE TABLE.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC:

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY.

STP RURAL PAVING (80% FEDERAL / 20% STATE)	= 2 CU.YDS.
STP URBAN PAVING (80% FEDERAL / 20% LOCAL)	= 2 CU.YDS.
NHS URBAN PAVING (80% FEDERAL / 20% LOCAL)	= 2 CU.YDS.
NHS RURAL PAVING (80% FEDERAL / 20% STATE)	= 2 CU.YDS.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC:
= 8 CU.YDS.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE:

USE OF L.E.O.'S BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LAW ENFORCEMENT OFFICERS (L.E.O.'S) SHOULD NOT BE USED WHERE THE OMTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OHIO MANUAL UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS.

TRAFFIC CONTROL TASKS

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY.

FOR LANE CLOSURES

- DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).
- WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

IN GENERAL, L.E.O.'S SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

LAW ENFORCEMENT OFFICERS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF THE MOTORISTS ACTIONS ARE CONSIDERED TO BE WRECKLESS, THEN PURSUIT OF THE MOTORIST MAY BE APPROPRIATE.

THE L.E.O.'S WORK AT THE DIRECTION OF THE CONTRACTOR AND THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEO'S AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEO. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THEIR RESPECTIVE DUTIES, PLACEMENT AND WILL RESOLVE ANY ISSUES BETWEEN THE TWO PARTIES THAT MAY ARISE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE SERVICES WITH,

THE DELAWARE COUNTY SHERIFF AT 1-740-852-1332
THE OHIO HIGHWAY PATROL 1-614-466-2660

THE L.E.O. SHOULD REPORT IN TO THE CONTRACTOR PRIOR TO THE START THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING THE SHIFT. THE L.E.O. IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF THE SHIFT. ONCE THE L.E.O. HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME ON THERE SHIFT, THE L.E.O. MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORIST FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE L.E.O. SHOULD NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE, WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF THE SHIFT.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE: (CONTINUED)

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED. ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A L.E.O. ARE TO BE INCLUDED IN THE UNIT BID PRICE ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR.

IF THE CONTRACTOR WISH TO UTILIZE THE L.E.O. FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE.

LAW ENFORCEMENT OFFICERS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR). THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

PAVING OPERATIONS

STP RURAL PAVING (80% FEDERAL / 20% STATE)	= 100 L.E.O. HOURS
STP URBAN PAVING (80% FEDERAL / 20% LOCAL)	= 200 L.E.O. HOURS
NHS URBAN PAVING (80% FEDERAL / 20% LOCAL)	= 200 L.E.O. HOURS
NHS RURAL PAVING (80% FEDERAL / 20% STATE)	= 100 L.E.O. HOURS

PERMANENT STRIPING

STP RURAL PAVING (80% FEDERAL / 20% STATE)	= 50 L.E.O. HOURS
STP URBAN PAVING (80% FEDERAL / 20% LOCAL)	= 100 L.E.O. HOURS
NHS URBAN PAVING (80% FEDERAL / 20% LOCAL)	= 100 L.E.O. HOURS
NHS RURAL PAVING (80% FEDERAL / 20% STATE)	= 50 L.E.O. HOURS

ITEM 614 - L.E.O. WITH PATROL CAR = 900 L.E.O. HOURS

rkinsell

13-JAN-2012 2:17PM

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CALCULATED

CHECKED

MAINTENANCE OF TRAFFIC

DEL-36-7.28
DEL-521-1.76

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN:

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE WHEN NO LONGER NEEDED, CHANGEABLE MESSAGE SIGNS, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. ONLY CLASS I OR II SIGNS WILL BE PERMITTED.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TEMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLE SHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETRO REFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

A PCMS SHALL BE PLACED "AS DIRECTED BY THE PROJECT ENGINEER" IN CONJUNCTION WITH LANE CLOSURES. THE MESSAGES SHALL BE AS DIRECTED BY THE ENGINEER. THE PLACEMENT, OPERATION, MAINTENANCE, AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9" BY 15" MINIMUM, FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLE SHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NEEDED.

THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHOULD BE SUPPORTED, BUT NORMALLY, NOT MORE THAN TWO MESSAGE PHASES SHOULD BE EMPLOYED, ALTHOUGH THREE PHASES MAY BE USED IN UNUSUAL CONDITIONS. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE. THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC, WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED, OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.03 SHALL MAINTAIN THE PCMS UNIT IN GOOD WORKING ORDER. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF A FAILURE. ANY FAILURE SHALL NOT RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATIONS AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN:

(CONTINUED)

THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN, AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITIES AS OUTLINED IN 104.04. PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT BID PRICE PER MONTH FOR EACH ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK. THE FOLLOWING QUANTITY HAS BEEN PROVIDED.

2 PCMS		
STP RURAL PAVING (80% FEDERAL / 20% STATE)	=	15 DAYS
STP URBAN PAVING (80% FEDERAL / 20% LOCAL)	=	30 DAYS
NHS URBAN PAVING (80% FEDERAL / 20% LOCAL)	=	30 DAYS
NHS RURAL PAVING (80% FEDERAL / 20% STATE)	=	15 DAYS

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN:
= 90 DAYS

WORK ZONE MARKINGS:

WORK ZONE MARKINGS SHALL BE PLACED WHENEVER LANE LINES OR TURN-LANE LINES ARE PAVED OVER, REMOVED, OR OTHERWISE UNSERVICEABLE, AND AT LOCATIONS IDENTIFIED BY THE ENGINEER. THE CONTRACTOR SHALL INSTALL TEMPORARY STRIPING AND WORK ZONE PAVEMENT MARKINGS AS PER THE REQUIREMENTS OF ITEM 614.04 AND 614.11.

THE CONTRACTOR SHALL REMOVE PRIOR TO THE PLACEMENT OF ALL PERMANENT PAVEMENT MARKINGS ALL CONFLICTING WORK ZONE MARKINGS.

WORK ZONE LANE LINE, CLASS III, 642 PAINT
WORK ZONE CENTER LINE, CLASS III, 642 PAINT
WORK ZONE CHANNELIZING, CLASS III, 642 PAINT
WORK ZONE STOP BARS CLASS III, 642 PAINT

SHALL BE USED ON THE PLANED AREAS OF ASPHALT. WORK ZONE MARKINGS SHALL BE PLACED TO REFLECT THE PROPOSED MARKINGS AS DETERMINED FROM THE PROPOSED MARKINGS WITHIN THE PROJECT LIMITS.

WORK ZONE LANE LINE, CLASS II, 740.06, TYPE 1
WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE 1
WORK ZONE CHANNELIZING, CLASS II, 740.06, TYPE 1
WORK ZONE STOP BARS CLASS II, 740.06, TYPE 1

SHALL BE USED ON FINAL COURSES OF ASPHALT. WORK ZONE MARKINGS SHALL BE PLACED TO REFLECT THE PROPOSED MARKINGS AS DETERMINED FROM THE PROPOSED MARKINGS WITHIN THE PROJECT LIMITS.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND TYPE OF WORK ZONE MARKINGS NEEDED MEETING THE REQUIREMENTS OF ITEM 614 BEFORE THE REMOVAL OR RESURFACING OBLITERATES THE EXISTING.

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC

DEL-36-7.28
DEL-521-1.76

STP RURAL 80% FEDERAL / 20% STATE FUNDING

SHEET #				614 WORK ZONE CENTER LINE, CLASS III, 642 PAINT (DOUBLE SOLID)	614 WORK ZONE CENTER LINE, CLASS III, 642 PAINT (PASS / NO PASS)	614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	614 WORK ZONE STOP LINE, CLASS III, 642 PAINT						614 WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I (DOUBLE SOLID)	614 WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I (PASS / NO PASS)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I			
28/93				MILE	MILE	FT	FT						MILE	MILE	FT	FT			
29/93				0.05									0.05						
30/93				0.19		640	72						0.19		640	72			
30/93				0.09									0.09						
33/93					0.19									0.19					
34/93				0.08	0.05	280	45						0.08	0.05	280	45			
46/93				0.09									0.09						
47/93				0.09									0.09						
CARRIED TO 16/93				0.83		920	117						0.83		920	117			

STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #				614 WORK ZONE CENTER LINE, CLASS III, 642 PAINT (DOUBLE SOLID)	614 WORK ZONE CENTER LINE, CLASS III, 642 PAINT (PASS / NO PASS)	614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	614 WORK ZONE STOP LINE, CLASS III, 642 PAINT						614 WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I (DOUBLE SOLID)	614 WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I (PASS / NO PASS)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I			
31/93				MILE	MILE	FT	FT						MILE	MILE	FT	FT			
32/93				0.16		360							0.16		360				
32/93				0.09	0.03	390							0.09	0.03	390				
32/93													0.00						
35/93				0.14		560	43						0.14	0.00	560	43			
36/93				0.12			43						0.12	0.00		43			
37/93				0.09									0.09	0.00					
38/93				0.09									0.09	0.00					
39/93				0.15		300							0.15	0.00	300				
40/93				0.17		150							0.17	0.00	150				
41/93				0.16		105							0.16	0.00	105				
42/93				0.19									0.19	0.00					
43/93				0.12		205							0.12	0.00	205				
44/93				0.15		250	36						0.15	0.00	250	36			
45/93				0.11									0.11	0.00					
45/93													0.00						
48/93				0.12			30						0.12	0.00		30			
49/93				0.09									0.09	0.00					
50/93				0.09									0.09	0.00					
51/93				0.09									0.09	0.00					
52/93				0.09									0.09	0.00					
53/93				0.09									0.09	0.00					
54/93				0.14		110	37						0.14	0.00	110	37			
CARRIED TO 16/93				2.50		2,430	189						2.50		2,430	189			

CALCULATED RISK CHECKED C-2

MAINTENANCE OF TRAFFIC WORK ZONE MARKING

DEL-36-7.28
DEL-521-1.76

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STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	614	614	614	614	614	614					614	614	614	614	614			
	WORK ZONE LANE LINE, CLASS III, 642 PAINT	WORK ZONE CENTER LINE, CLASS III, 642 PAINT (DOUBLE SOLID)	WORK ZONE CENTER LINE, CLASS III, 642 PAINT (PASS / NO PASS)	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	WORK ZONE STOP LINE, CLASS III, 642 PAINT						WORK ZONE LANE LINE, CLASS II, 740.06, TYPE I	WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I (DOUBLE SOLID)	WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I (PASS / NO PASS)	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I			
	MILE	MILE	MILE	FT	FT						MILE	MILE	MILE	FT	FT			
55/93		0.14		398							0.14		398					
56/93		0.09		200	78						0.09		200	78				
57/93		0.09		260	61						0.09		260	61				
58/93	0.15	0.09		210	76					0.15	0.09		210	76				
59/93	0.11	0.09		190	37					0.11	0.09		190	37				
86/93		0.13		685							0.13		685					
87/93		0.14		241	28						0.14		241	28				
89/93		0.18		540	29						0.18		540	29				
90/93		0.18		80							0.18		80					
91/93		0.18									0.18							
92/93																		
CARRIED																		
TO																		
16/93	0.26	1.31		2,804	309					0.26	1.31		2,804	309				

NHS URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	614	614	614	614	614	614					614	614	614	614	614			
	WORK ZONE LANE LINE, CLASS III, 642 PAINT	WORK ZONE CENTER LINE, CLASS III, 642 PAINT (DOUBLE SOLID)	WORK ZONE CENTER LINE, CLASS III, 642 PAINT (PASS / NO PASS)	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	WORK ZONE STOP LINE, CLASS III, 642 PAINT						WORK ZONE LANE LINE, CLASS II, 740.06, TYPE I	WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I (DOUBLE SOLID)	WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I (PASS / NO PASS)	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I			
	MILE	MILE	MILE	FT	FT						MILE	MILE	MILE	FT	FT			
60/93	0.19	0.09									0.19	0.09						
61/93	0.11	0.09		190	23						0.11	0.09		190	23			
62/93		0.09			17							0.09			17			
63/93		0.09										0.09						
64/93		0.09			30							0.09			30			
65/93		0.09										0.09						
66/93		0.09										0.09						
67/93		0.17			25							0.17			25			
68/93		0.16		356							0.16		356					
69/93	0.05	0.09		370						0.05	0.09		370					
70/93	0.09	0.04		270						0.09	0.04		270					
71/93	0.09			90						0.09			90					
72/93	0.17			98						0.17			98					
73/93	0.13			1,014	160					0.13			1,014	160				
74/93	0.19			1,105						0.19			1,105					
75/93	0.19			283						0.19			283					
76/93	0.18									0.18								
77/93	0.14			973	51					0.14			973	51				
78/93	0.19			240						0.19			240					
79/93	0.19									0.19								
80/93	0.19			35						0.19			35					
81/93	0.19									0.19								
CARRIED																		
TO																		
16/93	2.29	1.09		5,024	306					2.29	1.09		5,024	306				

**MAINTENANCE OF TRAFFIC
WORK ZONE MARKING**

**DEL-36-7.28
DEL-521-1.76**

15
93

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NHS RURAL 80% FEDERAL / 20% STATE FUNDING

SHEET #	614 WORK ZONE LANE LINE, CLASS III, 642 PAINT	614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	614 WORK ZONE STOP LINE, CLASS III, 642 PAINT	614 WORK ZONE LANE LINE, CLASS II, 740.06, TYPE I	614 WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I
	MILE	FT	FT	MILE	FT	FT
81/93	0.19			0.19		
82/93	0.19			0.19		
83/93	0.19	360		0.19	360	
84/93	0.15	979	78	0.15	979	78
85/93	0.06	90		0.06	90	
SEE BELOW	0.78	1,429	78	0.78	1,429	78

PAVEMENT MARKING SUB SUMMARY

SHEET #	614 WORK ZONE LANE LINE, CLASS III, 642 PAINT	614 WORK ZONE CENTER LINE, CLASS III, 642 PAINT	614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	614 WORK ZONE STOP LINE, CLASS III, 642 PAINT	614 WORK ZONE LANE LINE, CLASS II, 740.06, TYPE I	614 WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I	614 WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I
	MILE	MILE	FT	FT	MILE	MILE	FT	FT
14/93		3.33	3,350	306		3.33	3,350	306
15/93	2.55	2.40	7,828	615	2.55	2.40	7,828	615
16/93	0.78		1,429	78	0.78		1,429	78
CARRIED TO 18/93	3.33	5.73	12,607	999	3.33	5.73	12,607	999

**MAINTENANCE OF TRAFFIC
WORK ZONE MARKING**

DEL-36-7.28
DEL-521-1.76

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SHEET NUMBER						FUNDING SPLITS					ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET	CALCULATED	CHECKED
6-10	11-16	19-21	22-27	#N/A		(STP) RURAL 80% FED. 20% STATE	(STP) URBAN 80% FED. 20% LOCAL	(NHS) URBAN 80% FED. 20% LOCAL	(NHS) RURAL 80% FED. 20% STATE	LOCAL 100% LOCAL								
		155					155				202	32001	155	FT	ROADWAY CURB REMOVED, AS PER PLAN			
		31					50				203	10000	50	CU YD	EXCAVATION			
		89					140				204	10000	140	SQ YD	SUBGRADE COMPACTION			
2						1			1		604	38500	2	EACH	MONUMENT ASSEMBLY			
2						1			1		604	39500	2	EACH	MONUMENT BOX ADJUSTED TO GRADE			
						250	250	250	250		832	30000	1,000	EACH	EROSION CONTROL EROSION CONTROL			
5						5					603	98100	5	EACH	DRAINAGE CONDUIT, MISC.: INTERNAL JOINT SEAL			7/93
200						50			50	100	251	01001	200	SQ YD	PAVEMENT PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN			7/93
		186,245				15,742	75,978	72,099	20,068	2,358	254	01000	186,245	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE			
		15					15				301	46000	15	CU YD	ASPHALT CONCRETE BASE, PG64-22			
		15					15				304	20000	15	CU YD	AGGREGATE BASE			
		7,772				655	3,177	3,005	837	98	442	10001	7,772	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN			7/93
		311				12	44	179	76		617	10100	311	CU YD	COMPACTED AGGREGATE			
2						0.25	0.25	1.00	0.50		617	25000	2	M GAL	WATER			
		13,789				1,180	5,697	5,407	1,505		SPECIAL	69098900	13,789	GALLON	MISC.: TRACKLESS TACK COAT			
		163					45			118	SPECIAL	69098900	163	GALLON	MISC.: TRACKLESS TACK COAT FOR INTERMEDIATE COURSE			

GENERAL SUMMARY

**DEL-36-7.28
DEL-521-1.76**

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SHEET NUMBER					FUNDING SPLITS					ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET	CALCULATED	CHECKED
6-10	11-16	19-21	22-27	#N/A	(STP) RURAL 80% FED. 20% STATE	(STP) URBAN 80% FED. 20% LOCAL	(NHS) URBAN 80% FED. 20% LOCAL	(NHS) RURAL 80% FED. 20% STATE	LOCAL 100% LOCAL								
			897		123	271	370	133		621	00100	897	EACH	TRAFFIC CONTROL			
			688		105	256	231	96		621	54000	688	EACH	RPM			
						98				630	03100	98	FT	RAISED PAVEMENT MARKER REMOVED			
						4				630	08600	4	EACH	GROUND MOUNTED SUPPORT, NO. 3 POST			
						36				630	80100	36	SQ FT	SIGN POST REFLECTOR			
						5				630	84900	5	EACH	SIGN, FLAT SHEET			
						5				630	85100	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL			
						7				630	86002	7	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION			
			9.65		0.59	3.07	4.40	1.59		644	00100	9.65	MILE	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL			
			3.33			0.26	2.29	0.78		644	00201	3.33	MILE	EDGE LINE			
			5.78		0.83	3.86	1.09			644	00300	5.78	MILE	LANE LINE, AS PER PLAN	9/93		
			12,607		920	5,234	5,024	1,429		644	00400	12,607	FT	CENTER LINE			
			999		117	498	306	78		644	00500	999	FT	CHANNELIZING LINE			
														STOP LINE			
			1,961		444	982	535			644	00600	1,961	FT	CROSSWALK LINE			
			5,592		463	3,342	1,477	310		644	00700	5,592	FT	TRANSVERSE/DIAGONAL LINE			
			2			2				644	01000	2	EACH	RAILROAD SYMBOL MARKING			
			4			2				644	01100	4	EACH	SCHOOL SYMBOL MARKING, 72"			
			127		12	70	40	5		644	01300	127	EACH	LANE ARROW			
														WORD ON PAVEMENT, 72"			
			55		6	33	14	2		644	01400	55	EACH				
			0.08				0.08			646	10000	0.08	MILE	EDGE LINE			
			0.08				0.08			646	10101	0.08	MILE	LANE LINE, AS PER PLAN	9/93		
			25				25			646	10400	25	FT	STOP LINE			
														TRAFFIC SIGNAL			
		58			6	29	18	5		632	26501	58	EACH	DETECTOR LOOP, AS PER PLAN	8/93		
		58			6	29	18	5		632	27200	58	EACH	LOOP DETECTOR TIE IN	8/93		
				1,945			1,945			512	10400	1,945	SQ YD	STRUCTURES OVER 20'			
														TREATING OF CONCRETE BRIDGE DECK WITH SRS	93/93		
														MAINTENANCE OF TRAFFIC			
	900				150	300	300	150		614	11110	900	HOURL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	12/93		
	8				2	2	2	2		614	13000	8	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	12/93		
	90				15	30	30	15		614	18401	90	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	13/93		
	3.33					0.26	2.29	0.78		614	20550	3.33	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT			
	3.33					0.26	2.29	0.78		614	20600	3.33	MILE	WORK ZONE LANE LINE, CLASS II, 740.06, TYPE I			
	5.73				0.83	3.81	1.09			614	21550	5.73	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT			
	5.73				0.83	3.81	1.09			614	21600	5.73	MILE	WORK ZONE CENTER LINE, CLASS II, 740.06, TYPE I			
	12,607				920	5,234	5,024	1,429		614	23680	12,607	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT			
	12,607				920	5,234	5,024	1,429		614	23400	12,607	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I			
	999				117	498	306	78		614	26610	999	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT			
	999				117	498	306	78		614	26400	999	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I			
	LUMP									614	11000	LUMP		MAINTAINING TRAFFIC			
	LUMP				1	1	1	1		619	16000	4	MONTH	FIELD OFFICE, TYPE A			
										623	10001	LUMP		CONSTRUCTION LAYOUT STAKES, AS PER PLAN	8/93		
										624	10000	LUMP		MOBILIZATION			

GENERAL SUMMARY

DEL-36-7.28
DEL-521-1.76

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STP RURAL 80% FEDERAL / 20% STATE FUNDING

SHEET #	254	442	617	690	632	632													
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5')	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN													
	SQ YD	CU YD	CU YD	GAL	EACH	EACH													
28/93	609	25	3	46															
29/93	1,987	83	9	149	1	1													
30/93	2,898	121		217	3	3													
33/93	2,573	107		193															
34/93	3,791	158		284	2	2													
46/93	2,121	88		159															
47/93	1,763	73		132															
CARRIED TO 21/93	15,742	655	12	1,180	6	6													

STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	254	442	690	632	632														
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN														
	SQ YD	CU YD	GAL	EACH	EACH														
31/93	2,671	111	200	3	3														
32/93	2,795	116	210	3	3														
35/93	3,202	133	240	2	2														
36/93	2,392	100	179																
37/93	2,222	93	167																
38/93	2,267	94	170																
39/93	2,929	122	220	1	1														
40/93	2,796	117	210	2	2														
41/93	2,723	113	204	1	1														
42/93	2,615	109	196																
43/93	3,157	131	237	2	2														
44/93	3,247	135	243	2	2														
45/93	2,361	99	177																
48/93	1,778	74	133																
49/93	1,778	74	133																
50/93	1,742	73	130																
51/93	2,111	88	158																
52/93	2,070	86	155																
53/93	2,123	88	159																
54/93	2,123	89	159																
CARRIED TO 21/93	49,102	2,045	3,680	16	16														

CALCULATED RUB CHECKED C.C.	PAVEMENT SUB SUMMARY
DEL-36-7.28 DEL-521-1.76	19 93

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STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	254	442	617	690	690	202	203	204	304	301	632	632	630	630	630	630	630	
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5')	TRACKLESS TACK COAT	TRACKLESS TACK COAT FOR INTERMEDIATE COURSE	CURB REMOVED	EXCAVATION	SUBGRADE COMPACTION	AGGREGATE BASE (6" DEPTH)	ASPHALT CONCRETE PG64-22 (6" DEPTH)	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	GROUND MOUNTED SUPPORT #3 POST	SIGN POST REFLECTOR	SIGN FLAT SHEET	REMOVAL GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL GROUND MOUNTED SIGN REEFFECTION
	SQ YD	CU YD	CU YD	GAL	GAL	FT	CU YD	SQ YD	CU YD	CU YD	EACH	EACH	FT	EACH	SQ FT	EACH	EACH	EACH
55/93	2,295	96		172							4	4						
56/93	2,777	116		208							5	5						
57/93	2,614	116		196														
58/93	3,296	138		247							1	1						
59/93	3,717	155		279														
86/93	2,929	122	3	220							3	3						
87/93	2,440	101	10	183														
88/93		4			45	155	31	89	15	15			98	4	36	5	7	5
89/93	2,545	106	10	191														
90/93	1,962	82	9	148														
91/93	1,822	76	9	137														
92/93	479	20	3	36														
CARRIED																		
TO																		
21/93	26,876	1,132	44	2,017	45	155	31	89	15	15	13	13	98	4	36	5	7	5

NHS URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	254	442	617	690		632	632											
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5')	TRACKLESS TACK COAT		DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN											
	SQ YD	CU YD	CU YD	GAL		EACH	EACH											
60/93	959	40		72														
61/93	2,638	110		198		1	1											
62/93	1,766	74		132														
63/93	1,667	69		125														
64/93	1,716	72		129														
65/93	1,667	69		125														
66/93	1,656	69		124														
67/93	1,854	77		139		1	1											
68/93	2,475	103		186		1	1											
69/93	2,889	120		217														
70/93	3,140	131	7	235														
71/93	4,167	174	19	313														
72/93	4,267	178	18	320		2	2											
73/93	6,869	286	9	515		2	2											
74/93	5,373	224	17	403		2	2											
75/93	4,470	186	19	335		2	2											
76/93	5,412	226	19	406		2	2											
77/93	5,847	244	14	438		3	3											
78/93	4,627	193	19	347		2	2											
79/93	4,281	178	19	321														
80/93	4,359	182	19	327														
CARRIED																		
TO																		
21/93	72,099	3,005	179	5,407		18	18											

PAVEMENT SUB SUMMARY	CALCULATED ROK CHECKED CC:
DEL-36-7.28 DEL-521-1.76	20 93

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NHS RURAL 80% FEDERAL / 20% STATE FUNDING

SHEET #	254	442	617	690	632	632												
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5')	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN												
	SQ YD	CU YD	CU YD	GAL	EACH	EACH												
81/93	4,384	183	19	329														
82/93	4,288	179	19	322														
83/93	4,404	184	19	330	2	2												
84/93	5,343	223	14	400	1	1												
85/93	1,649	68	5	124	2	2												
SEE BELOW	20,068	837	76	1,505	5	5												

100% LOCAL FUNDING

SHEET #	254	442	690															
	PAVEMENT PLANING, ASPHALT CONCRETE (3" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" INTERMEDIATE)	TRACKLESS TACK COAT FOR INTERMEDIATE COURSE															
	SQ YD	CU YD	GAL															
58/93	2,358	98	118															
CARRIED TO 21/93	2,358	98	118															

PAVEMENT SUB SUMMARY

SHEET #	254	254	442	442	617	690	690	632	632									
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	PAVEMENT PLANING, ASPHALT CONCRETE (3" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" INTERMEDIATE)	COMPACTED AGGREGATE (1.5')	TRACKLESS TACK COAT	TRACKLESS TACK COAT FOR INTERMEDIATE COURSE	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN									
	SQ YD	SQ YD	CU YD	CU YD	CU YD	GAL	GAL	EACH	EACH									
19/93	64,844		2,700		12	4,860		22	22									
20/93	98,975		4,137		223	7,424	45	31	31									
21/93	20,068	2,358	837	98	76	1,505	118	5	5									
CARRIED TO 17/93	186,245		7,772		311	13,789	163	58	58									

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PAVEMENT SUB SUMMARY	
DEL-36-7.28	
DEL-521-1.76	
21	
93	

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STP RURAL 80% FEDERAL / 20% STATE FUNDING

SHEET #	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644			
	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	LANE ARROW, THROUGH	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"		
	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH		
28/93	0.06			0.05														
29/93	0.09			0.19						349								
30/93	0.04			0.09		640	72	99	25	51			3		3	4		
33/93	0.09				0.19								2					
34/93	0.09			0.08	0.05	280	45	345		38			2		2	2		
46/93	0.19			0.09														
47/93	0.03			0.09														
CARRIED TO 24/93	0.59			0.83		920	117	444	463				12		6			

STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644			
	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	LANE ARROW, THROUGH	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"		
	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH		
31/93	0.09			0.16		360				387			2		2	2		
32/93	0.06			0.09	0.03	390				40			5		3	2		
35/93	0.19			0.14		560	43			219			3		2	2		
36/93	0.19			0.12			43			43								
37/93	0.19			0.09														
38/93	0.19			0.09														
39/93	0.19			0.15		300				142			1		1	2		
40/93	0.11			0.17		150				149			3		1	1		
41/93	0.14			0.16		105				281					2	1		
42/93	0.19			0.19						295								
43/93	0.19			0.12		205			20	99			3			2		
44/93	0.19			0.15		250	36	128		200			2		2	2		
45/93	0.19			0.11						20								
48/93				0.12			30	65		80								
49/93				0.09														
50/93				0.09							1							
51/93				0.09							1							
52/93				0.09														
53/93				0.09														
54/93				0.14		110	37	78		133			2			1		
CARRIED TO 24/93	2.11			2.50		2,430	189	271	2,108		2		34		15			

CALCULATED RISK CHECKED C.C.	PAVEMENT MARKING SUB SUMMARY
DEL-36-7.28 DEL-521-1.76	
22 93	

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STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	STP URBAN 80% FEDERAL / 20% LOCAL FUNDING																		
	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644			
	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	LANE ARROW, THROUGH	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"			
	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH			
55/93				0.14		398			82	207			3		2	2			
56/93				0.09		200	78	277					2		2	2			
57/93				0.09		260	61	152					4			2			
58/93			0.15	0.09		210	76	142				1	4			2			
59/93			0.11	0.09		190	37	140				1	4			1			
86/93	0.13			0.13		685				85			4	2	3	5			
87/93	0.19			0.14		241	28		171	59				1	1				
89/93	0.20			0.18		540	29		241	74			1	1		2			
90/93	0.19			0.18		80				182			1	1		2			
91/93	0.19			0.18						133									
92/93	0.06			0.05															
CARRIED																			
TO																			
24/93	0.96		0.26		1.36	2,804	309	711		1,234		2		36		18			

NHS URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	NHS URBAN 80% FEDERAL / 20% LOCAL FUNDING																		
	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644	646	646	646
	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	LANE ARROW, THROUGH	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	LANE LINE	CENTER LINE (DOUBLE SOLID)	STOP LINE
	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	FT
60/93			0.19	0.09													0.08	0.08	25
61/93			0.11	0.09		190	23						2			1			
62/93				0.09			17												
63/93				0.09								1				1			
64/93				0.09			30	227											
65/93				0.09								1				1			
66/93				0.09															
67/93				0.17			25	62		90			1	1					
68/93				0.16		356			196	214			1	1		1			
69/93	0.15		0.05	0.09		370			70	31			3			1			
70/93	0.19	0.13	0.09	0.04		270							3			1			
71/93	0.19	0.18	0.09			90							2						
72/93	0.19	0.19	0.17			98				118			1						
73/93	0.18	0.13	0.13			1,014	160	246		256			3		3	2			
74/93	0.19	0.19	0.19			1,105				145			2		4	3			
75/93	0.16	0.16	0.19			283				64					2				
76/93	0.19	0.18	0.18												3	1			
77/93	0.19	0.14	0.14			973	51			293			3			1			
78/93	0.16	0.19	0.19			240							2		2	1			
79/93	0.19	0.17	0.19																
80/93	0.19	0.19	0.19			35							1						
81/93	0.19	0.19	0.19																
CARRIED																			
TO																			
24/93	4.40		2.29		1.09	5,024	306	535		1,477		2		40		14	0.08	0.08	25

CALCULATED	23
CHKD	93
PAVEMENT MARKING SUB SUMMARY	
DEL-36-7.28 DEL-521-1.76	

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NHS RURAL 80% FEDERAL / 20% STATE FUNDING

SHEET #	MARKING TYPE															
	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	LANE ARROW, THROUGH	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"
	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH
81	0.19	0.19	0.19													
82	0.19	0.19	0.19													
83	0.19	0.19	0.19			360									2	
84	0.19	0.14	0.15			979	78		187				1		1	2
85	0.06	0.06	0.06			90			123				1			
	1.59		0.78			1,429	78		310					5		2

PAVEMENT MARKING SUB SUMMARY

SHEET #	MARKING TYPE															
	EDGE LINE	LANE LINE	CENTER LINE	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	WORD ON PAVEMENT, 72", "ONLY"	LANE LINE	CENTER LINE (DOUBLE SOLID)	STOP LINE		
	MILE	MILE	MILE	FT	FT	FT	FT	EACH	EACH	EACH	EACH	MILE	MILE	FT		
22	2.70		3.33	3,350	306	715	2,571	2		46	21					
23	5.36	2.55	2.45	7,828	615	1,246	2,711		4	76	32	0.08	0.08	25		
24	1.59	0.78		1,429	78		310			5	2					
CARRIED TO 18/93	9.65	3.33	5.78	12,607	999	1,961	5,592	2	4	127	55	0.08	0.08	25		

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CALCULATED BY: _____ CHECKED BY: _____
PAVEMENT MARKING SUB SUMMARY
DEL-36-7.28
DEL-521-1.76

DETAIL	STANDARD DRAWING TC-65.10
1	EDGE LINE
2	CHANNELIZING LINE
3	LANE LINE
4	CENTER LINE

DETAIL	STANDARD DRAWING TC-65.11
5	ENTRANCE RAMP
6	EXIT RAMP
7	4 LANE DIVIDED TO 2 LANE TRANSITION
8	4 LANE UNDIVIDED TO 2 LANE TRANSITION
9	MULTILANE DIVIDED HIGHWAY

DETAIL	STANDARD DRAWING TC-65.11
10	APPROACH W/ LEFT TURN LANE
11	STOP APPROACH
12	TWO WAY LEFT TURN LANE
13	ONE LANE BRIDGE
14	HORIZONTAL CURVE

STP RURAL 80% FEDERAL / 20% STATE FUNDING

LOCATION		REFLECTOR TYPE										621		REMARKS		
S H E E T #	D E T A I L #	ONE WAY				TWO WAY						RAISED PAVEMENT MARKER REMOVED	RPM			
		WHITE		YELLOW		WHITE RED		YELLOW RED		YELLOW YELLOW						
		RIGHT EDGE LINE		LANE LINE	LEFT EDGE LINE	EDGE LINE		CHANNELIZING LINE	LANE LINE	EDGE LINE					CENTER LINE	
		40'	80'	80'	80'	40'	80'	40'	80'	80'	40'			80'	40'	80'
28/93	10													3	3	APPROACH WITH LT TURN
29/93	10,11					3	5								21	APPROACH WITH LT TURN, STOP APPROACH
30/93	1,10,11	3				16	2	16							43	APPROACH WITH LT TURN, STOP APPROACH THREE ONE WAY WHITE ON WB EDGE LINE
33/93	10,11					5	10								28	APPROACH WITH LT TURN, STOP APPROACH
34/93	10,11					8		7							22	APPROACH WITH LT TURN, STOP APPROACH
46/93	4													6	6	
											105		REMOVAL QUANTITIES			
TOTALS CARRIED TO 27/93											105	123				

STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

LOCATION		REFLECTOR TYPE										621		REMARKS		
S H E E T #	D E T A I L #	ONE WAY				TWO WAY						RAISED PAVEMENT MARKER REMOVED	RPM			
		WHITE		YELLOW		WHITE RED		YELLOW RED		YELLOW YELLOW						
		RIGHT EDGE LINE		LANE LINE	LEFT EDGE LINE	EDGE LINE		CHANNELIZING LINE	LANE LINE	EDGE LINE					CENTER LINE	
		40'	80'	80'	80'	40'	80'	40'	80'	80'	40'			80'	40'	80'
31/93	10,11					13	6	6						10	35	APPROACH WITH LT TURN, STOP APPROACH
32/93	10,11					11	5	14						7	37	APPROACH WITH LT TURN, STOP APPROACH
35/93	10,11					11	1	14						9	35	APPROACH WITH LT TURN, STOP APPROACH
36/93	10,11						4							8	12	APPROACH WITH LT TURN, STOP APPROACH
37/93	4													6	6	
38/93	10,11						3							6	9	APPROACH WITH LT TURN, STOP APPROACH
39/93	10,11					9	2	5						9	25	APPROACH WITH LT TURN, STOP APPROACH
40/93	10,11					2		3						8	13	APPROACH WITH LT TURN, STOP APPROACH
41/93	2,4							3						12	15	
42/93	10,11						5							13	18	APPROACH WITH LT TURN, STOP APPROACH
43/93	1,10,11	3				11		6						7	27	APPROACH WITH LT TURN, STOP APPROACH THREE ONE WAY WHITE ON WB EDGE LINE
44/93	10,11					11		6						9	26	APPROACH WITH LT TURN, STOP APPROACH
45/93	10,11						5							8	13	APPROACH WITH LT TURN, STOP APPROACH
											256		REMOVAL QUANTITIES			
TOTALS CARRIED TO 27/93											256	271				

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**RAISED PAVEMENT MARKER
SUB SUMMARY**

**DEL-36-7.28
DEL-521-1.76**

 25
93

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DETAIL	STANDARD DRAWING TC-65.10
1	EDGE LINE
2	CHANNELIZING LINE
3	LANE LINE
4	CENTER LINE

DETAIL	STANDARD DRAWING TC-65.11
5	ENTRANCE RAMP
6	EXIT RAMP
7	4 LANE DIVIDED TO 2 LANE TRANSITION
8	4 LANE UNDIVIDED TO 2 LANE TRANSITION
9	MULTILANE DIVIDED HIGHWAY

DETAIL	STANDARD DRAWING TC-65.11
10	APPROACH W/ LEFT TURN LANE
11	STOP APPROACH
12	TWO WAY LEFT TURN LANE
13	ONE LANE BRIDGE
14	HORIZONTAL CURVE

NHS URBAN 80% FEDERAL / 20% LOCAL FUNDING

LOCATION		REFLECTOR TYPE											621		REMARKS		
S H E E T #	D E T A I L #	ONE WAY				TWO WAY							RAISED PAVEMENT MARKER REMOVED	RPM			
		WHITE		YELLOW		WHITE RED		YELLOW RED		YELLOW YELLOW							
		RIGHT EDGE LINE		LANE LINE	LEFT EDGE LINE	EDGE LINE		CHANNELIZING LINE	LANE LINE	EDGE LINE		CENTER LINE					
		40'	80'	80'	80'	40'	80'	40'	80'	80'	40'	80'			40'	80'	
69/93	2,3,4							6		4					4	14	BEGIN AT STATION 598+00.00
70/93	1,2,3,4							8		6	12					26	
71/93	2,3							3		6						9	
72/93	10,11					3	5	10		11	3	5				37	APPROACH WITH LT TURN, STOP APPROACH
73/93	10,11					8		19		9	8	5				44	APPROACH WITH LT TURN, STOP APPROACH
74/93	1,10,11	5				11			13	13	11					53	APPROACH WITH LT TURN, STOP APPROACH
75/93	3,11						4	4		13		4				25	FIVE ONE WAY WHITE ON WB EDGE LINE
76/93	3,11							11	1	6	13	11	1			43	STOP APPROACH
77/93	1,10,11	3				10		10		13	10					46	APPROACH WITH LT TURN, STOP APPROACH
78/93	10,11					1	5	6		13	1	5				31	THREE ONE WAY WHITE ON WB EDGE LINE
79/93	3									13						13	APPROACH WITH LT TURN, STOP APPROACH
80/93	2,3									3	13					16	
81/93	3										13					13	
											231		REMOVAL QUANTITIES				
TOTALS CARRIED TO 27/93											231	370					

NHS RURAL 80% FEDERAL / 20% STATE FUNDING

LOCATION		REFLECTOR TYPE											621		REMARKS		
S H E E T #	D E T A I L #	ONE WAY				TWO WAY							RAISED PAVEMENT MARKER REMOVED	RPM			
		WHITE		YELLOW		WHITE RED		YELLOW RED		YELLOW YELLOW							
		RIGHT EDGE LINE		LANE LINE	LEFT EDGE LINE	EDGE LINE		CHANNELIZING LINE	LANE LINE	EDGE LINE		CENTER LINE					
		40'	80'	80'	80'	40'	80'	40'	80'	80'	40'	80'			40'	80'	
81/93											13					13	
82/93	11						4			13		4				21	STOP APPROACH
83/93	11					8	1	3		13	8	1				34	STOP APPROACH
84/93	11					9		8		11	9					37	STOP APPROACH
85/93	10,11					5	5	4		4	5	5				28	APPROACH WITH LT TURN, STOP APPROACH
											96		REMOVAL QUANTITIES				
25/93																	
26/93																	
TOTALS CARRIED TO 27/93											96	133					

CALCULATED BY: _____ CHECKED BY: _____
RAISED PAVEMENT MARKER SUB SUMMARY
 DEL-36-7.28
 DEL-521-1.76
 26
 93

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DETAIL	STANDARD DRAWING TC-65.10
1	EDGE LINE
2	CHANNELIZING LINE
3	LANE LINE
4	CENTER LINE

DETAIL	STANDARD DRAWING TC-65.11
5	ENTRANCE RAMP
6	EXIT RAMP
7	4 LANE DIVIDED TO 2 LANE TRANSITION
8	4 LANE UNDIVIDED TO 2 LANE TRANSITION
9	MULTILANE DIVIDED HIGHWAY

DETAIL	STANDARD DRAWING TC-65.11
10	APPROACH W/ LEFT TURN LANE
11	STOP APPROACH
12	TWO WAY LEFT TURN LANE
13	ONE LANE BRIDGE
14	HORIZONTAL CURVE

CALCULATED ROR	CHECKED C.C.
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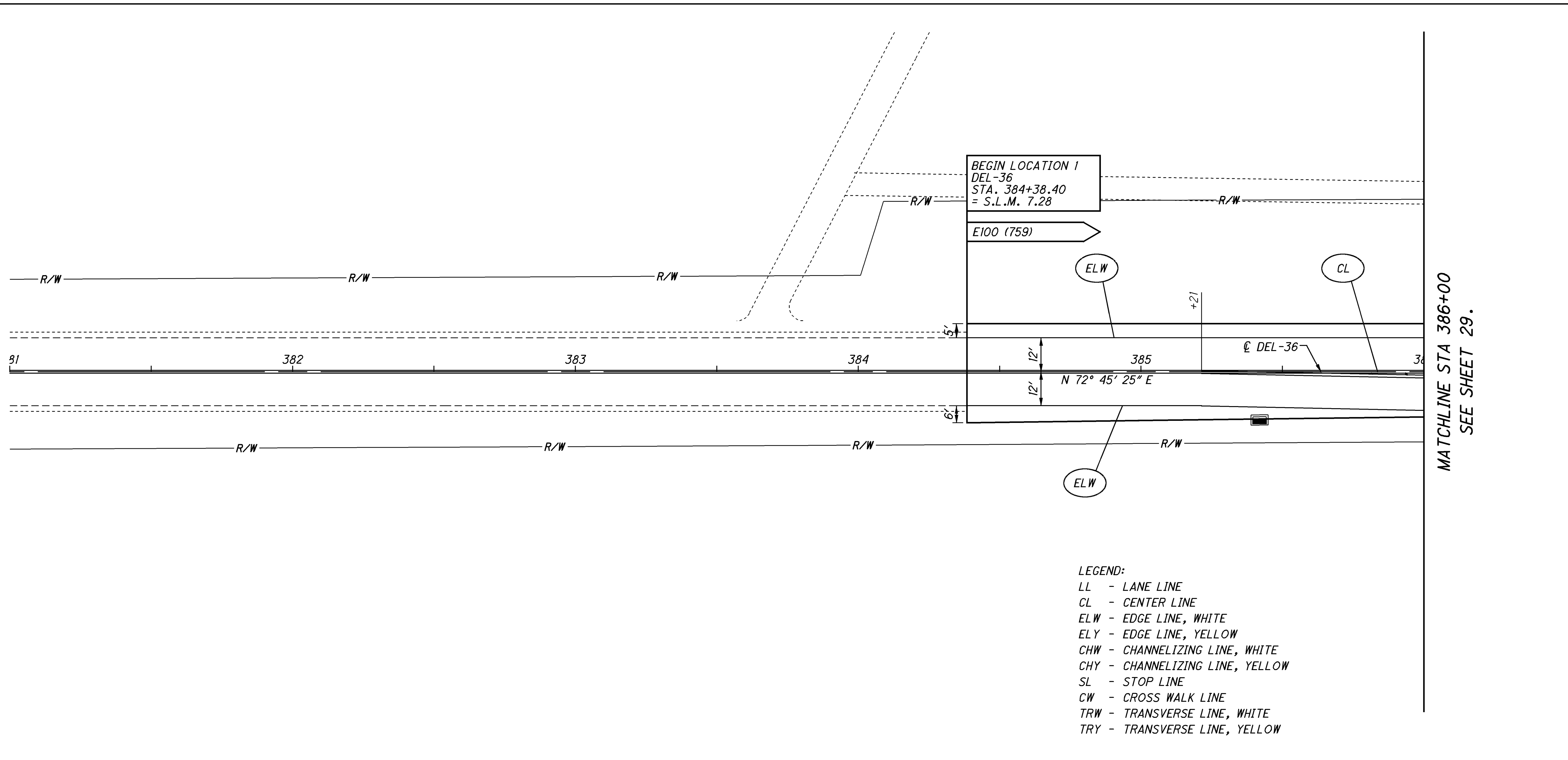
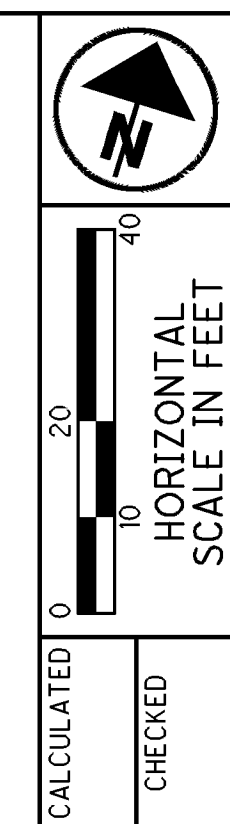
RAISED PAVEMENT MARKERS SUB SUMMARY

LOCATION S H E E T #		D E T A I L #	REFLECTOR TYPE												621		REMARKS	
			ONE WAY				TWO WAY								RAISED PAVEMENT MARKER REMOVED	RPM		
			WHITE		YELLOW		WHITE RED				YELLOW RED		YELLOW YELLOW					
			RIGHT EDGE LINE		LANE LINE	LEFT EDGE LINE	EDGE LINE		CHANNELIZING LINE		LANE LINE	EDGE LINE		CENTER LINE				
40'	80'	80'	80'	40'	80'	40'	80'	80'	40'	80'	40'	80'	40'	80'				
25/93																361	394	TOTALS
26/93																327	503	TOTALS
TOTALS CARRIED TO 18/93														688	897			

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RAISED PAVEMENT MARKER SUB SUMMARY

DEL-36-7.28
 DEL-521-1.76



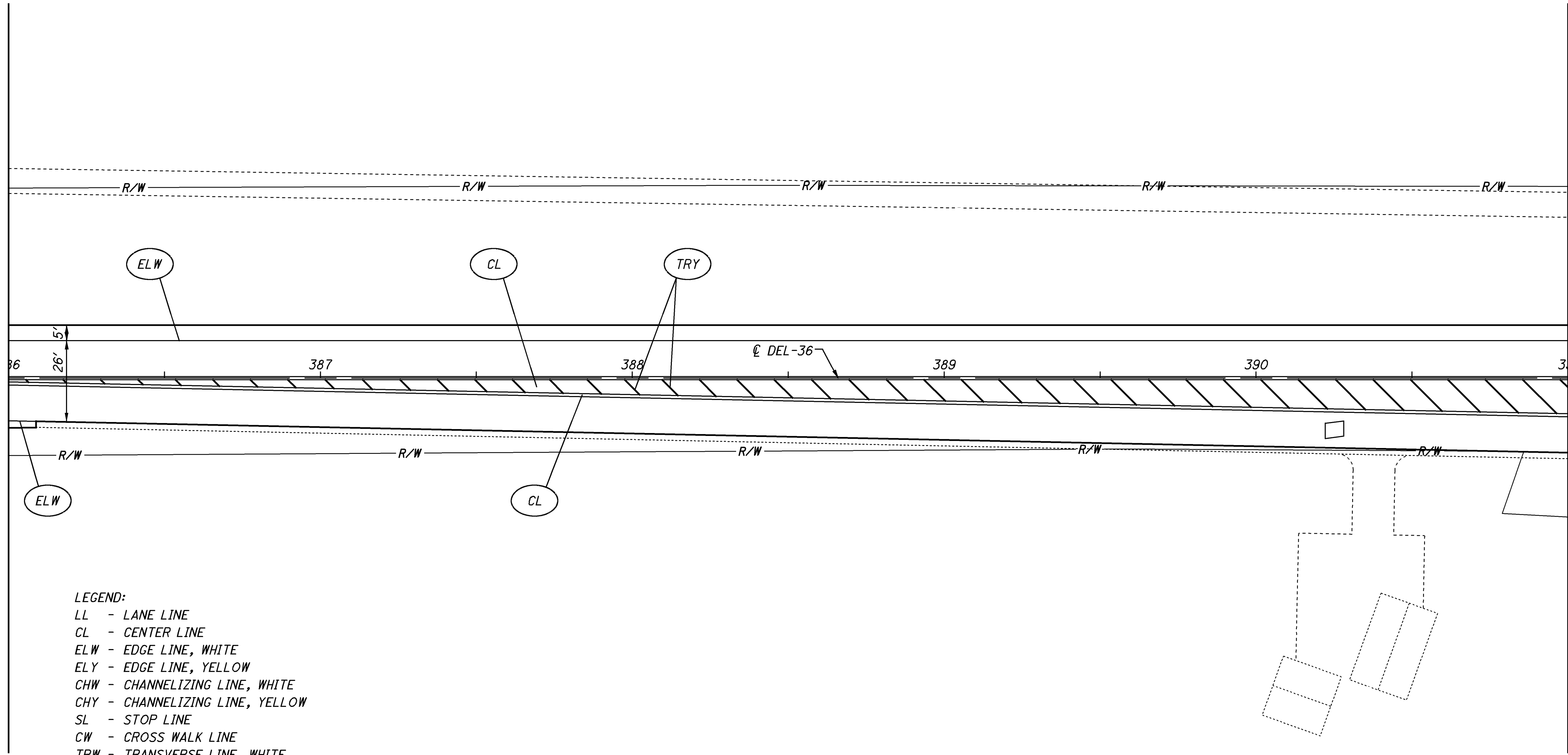
- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT MATERIALS				MILEAGE		REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	
					SQ YD	CU YD	CU YD	GAL			
US-36	384+38.40	386+00.00	1	34	609	25	3	46			
US-36	384+38.40	386+00.00							0.06	0.05	PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					609	25	3	46	0.06	0.05	

PAVEMENT PLAN DEL-36
STA 384+38.40 TO STA 386+00

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 386+00
SEE SHEET 28.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 391+00
SEE SHEET 30.



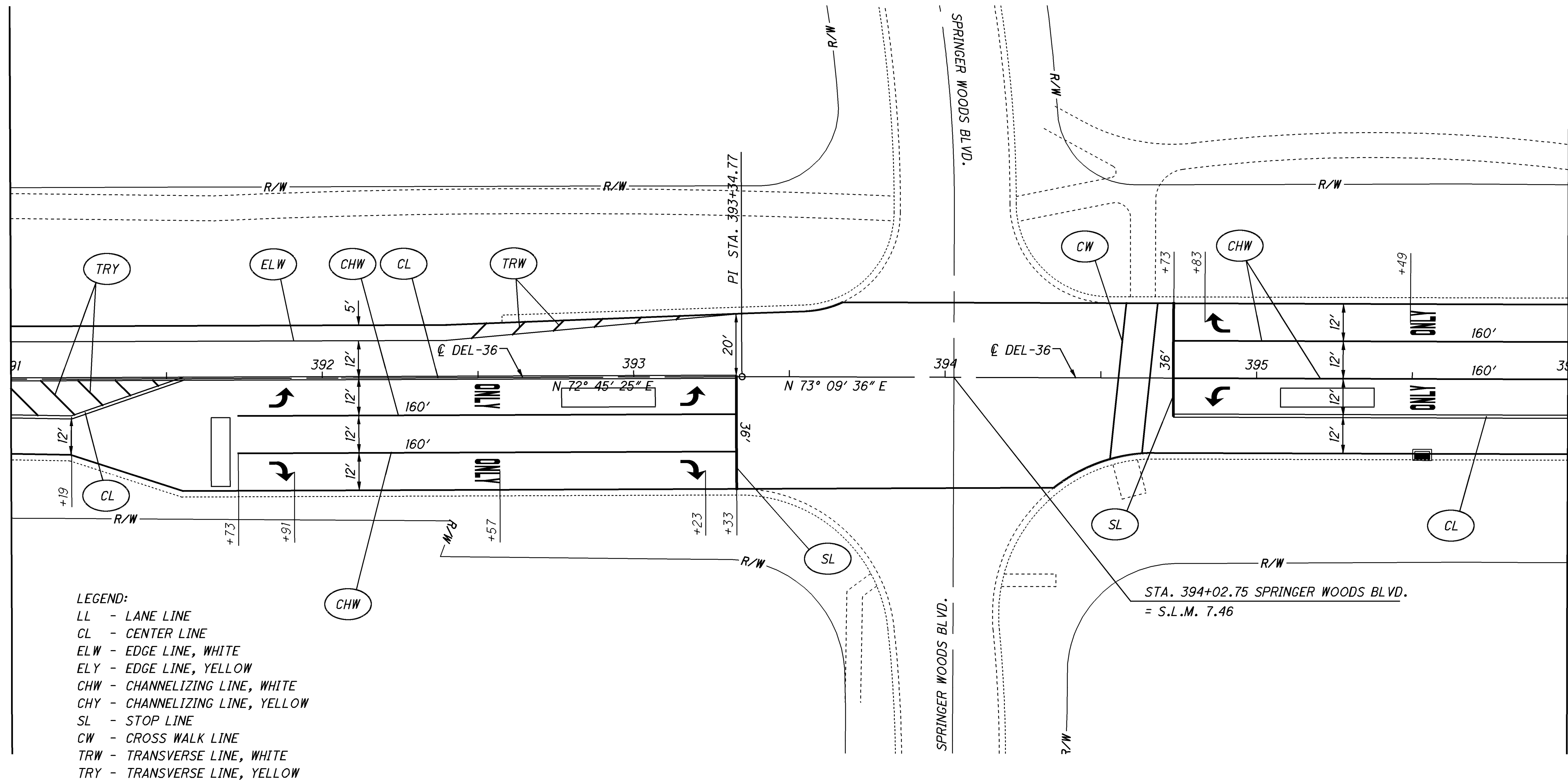
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**PAVEMENT PLAN DEL-36
STA 386+00 TO STA 391+00**

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	617	690				644	644	644		632	632				REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT				EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	TRANSVERSE/DIAGONAL LINE, YELLOW		DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN				
					SQ YD	CU YD	CU YD	GAL				MILE	MILE	FT		EACH	EACH				
US-36	386+00.00	391+00.00	1	36	1,987	83	9	149								1	1				
US-36	386+00.00	391+00.00										0.09	0.19	349							PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					1,987	83	9	149				0.09	0.19	349		1	1				

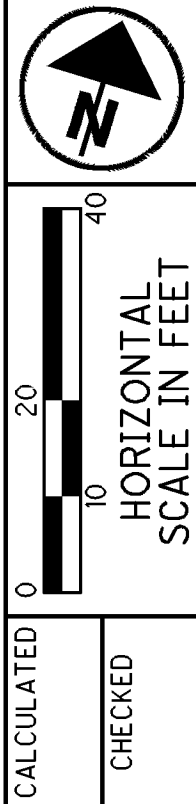
**DEL-36-7.28
DEL-521-1.76**

MATCHLINE STA 391+00
SEE SHEET 29.



MATCHLINE STA 396+00
SEE SHEET 31.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

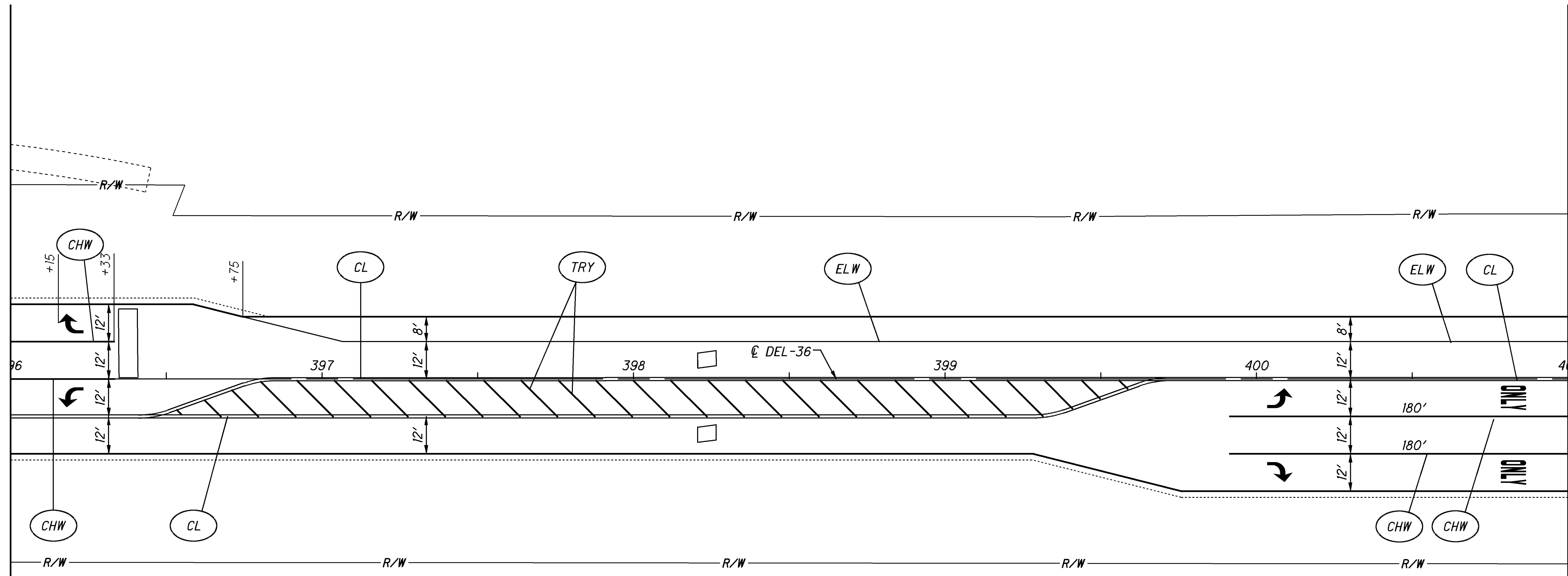


REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	REMARKS	
					SQ YD	CU YD		GAL	EACH												EACH
US-36	391+00.00	396+00.00	1	52	2,898	121	217	3	3												
US-36	391+00.00	396+00.00								0.04	0.09	640	72	99	25	51	3	3	4	PAVEMENT MARKING	
TOTALS CARRIED TO 19/93 & 22/93					2,898	121	217	3	3	0.04	0.09	640	72	99	25	51	3	3	4		

PAVEMENT PLAN DEL-36
STA 391+00 TO STA 396+00

DEL-36-7.28
DEL-521-1.76

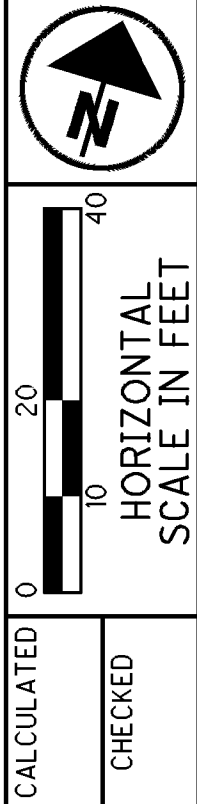
MATCHLINE STA 396+00
SEE SHEET 30.



MATCHLINE STA 401+00
SEE SHEET 32.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

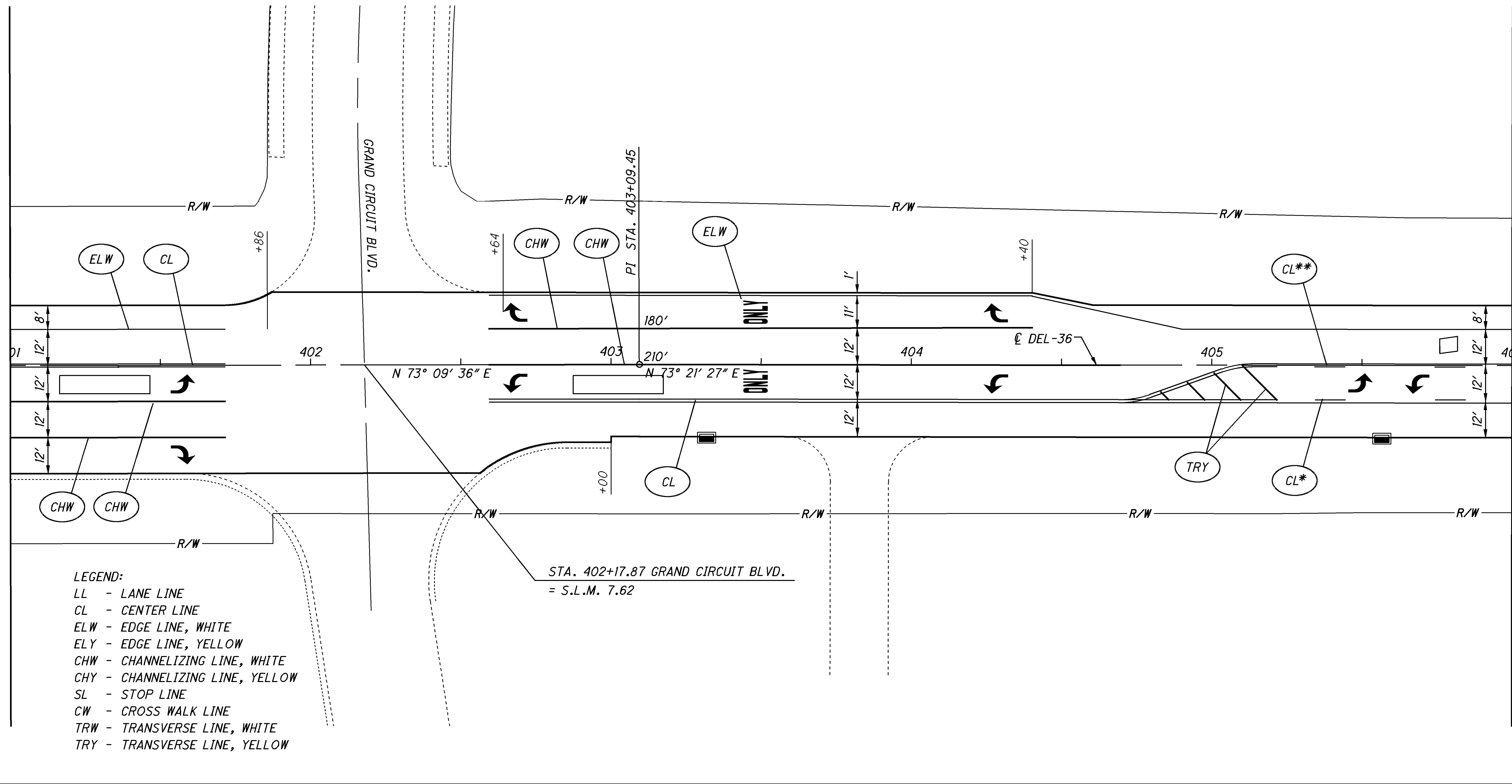
REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, "T", "ONLY"	REMARKS
					SQ YD	CU YD		GAL	EACH								
US-36	396+00.00	401+00.00	1	48	2,671	111	200	3	3								
US-36	396+00.00	401+00.00								0.09	0.16	360	387	2	2	2	PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,671	111	200	3	3	0.09	0.16	360	387	2	2	2	



PAVEMENT PLAN DEL-36
STA 396+00 TO STA 401+00

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 401+00
SEE SHEET 31.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 406+00
SEE SHEET 33.

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	REMARKS
					SQ YD	CU YD		GAL	EACH									
US-36	401+00.00	406+00.00	1	50	2,795	116	210	3	3									
US-36	401+00.00	406+00.00								0.06	0.09	0.03	390	40	5	3	2	PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,795	116	210	3	3	0.06	0.09	0.03	390	40	5	3	2	

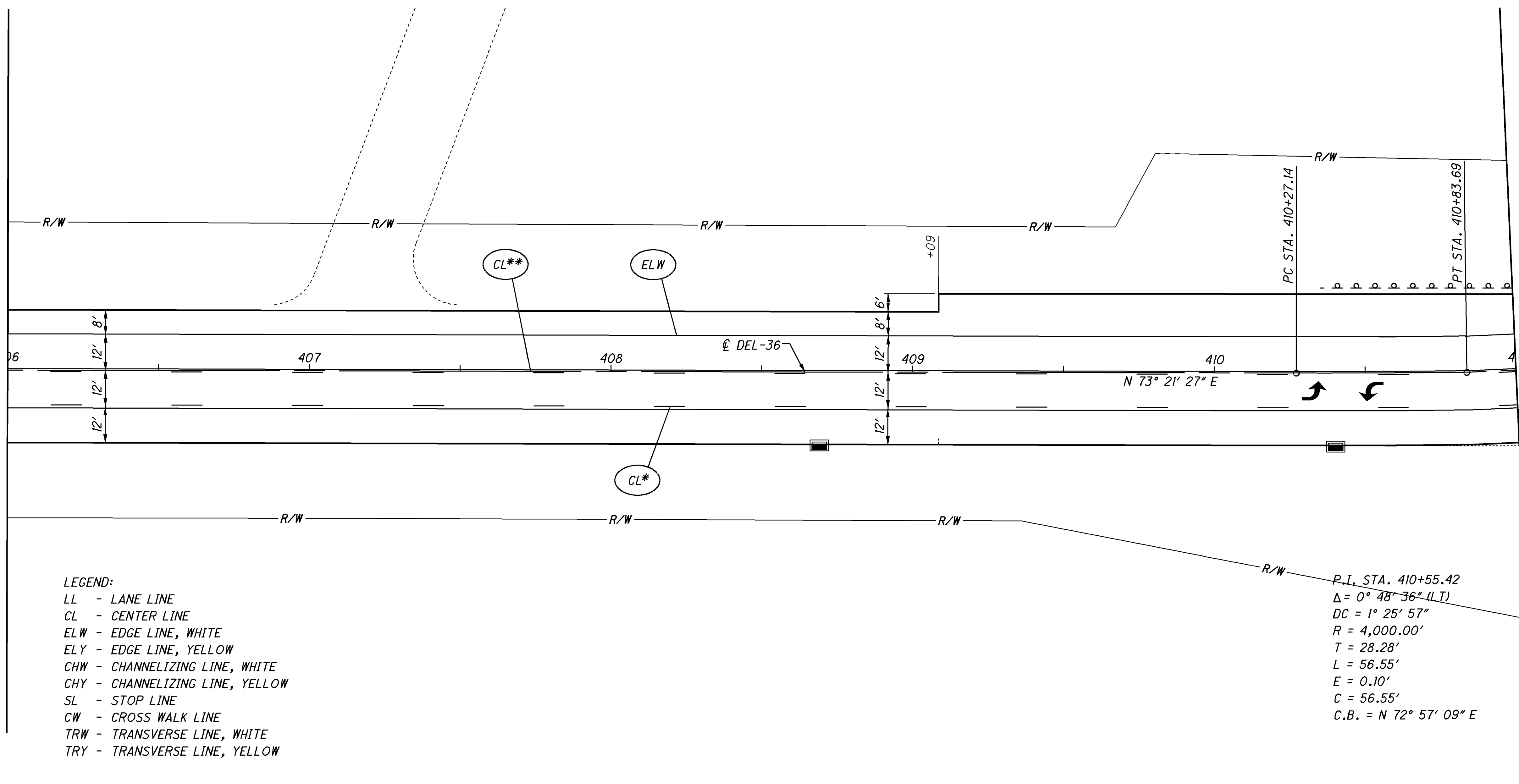
DEL-36-7.28
DEL-521-1.76

PAVEMENT PLAN DEL-36
STA 401+00 TO STA 406+00

CALCULATED
CHECKED

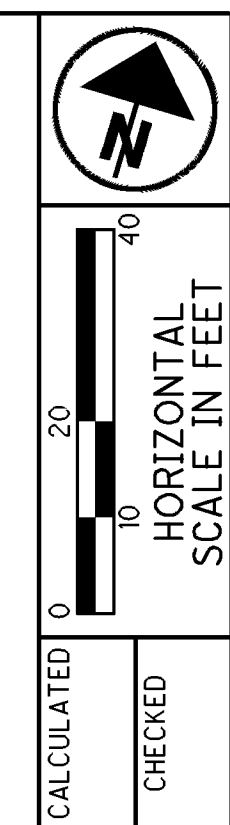
HORIZONTAL SCALE IN FEET

MATCHLINE STA 406+00
SEE SHEET 32.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

P.I. STA. 410+55.42
 $\Delta = 0^\circ 48' 36''$ (LT)
 $DC = 1^\circ 25' 57''$
 $R = 4,000.00'$
 $T = 28.28'$
 $E = 56.55'$
 $C = 56.55'$
 $C.B. = N 72^\circ 57' 09'' E$

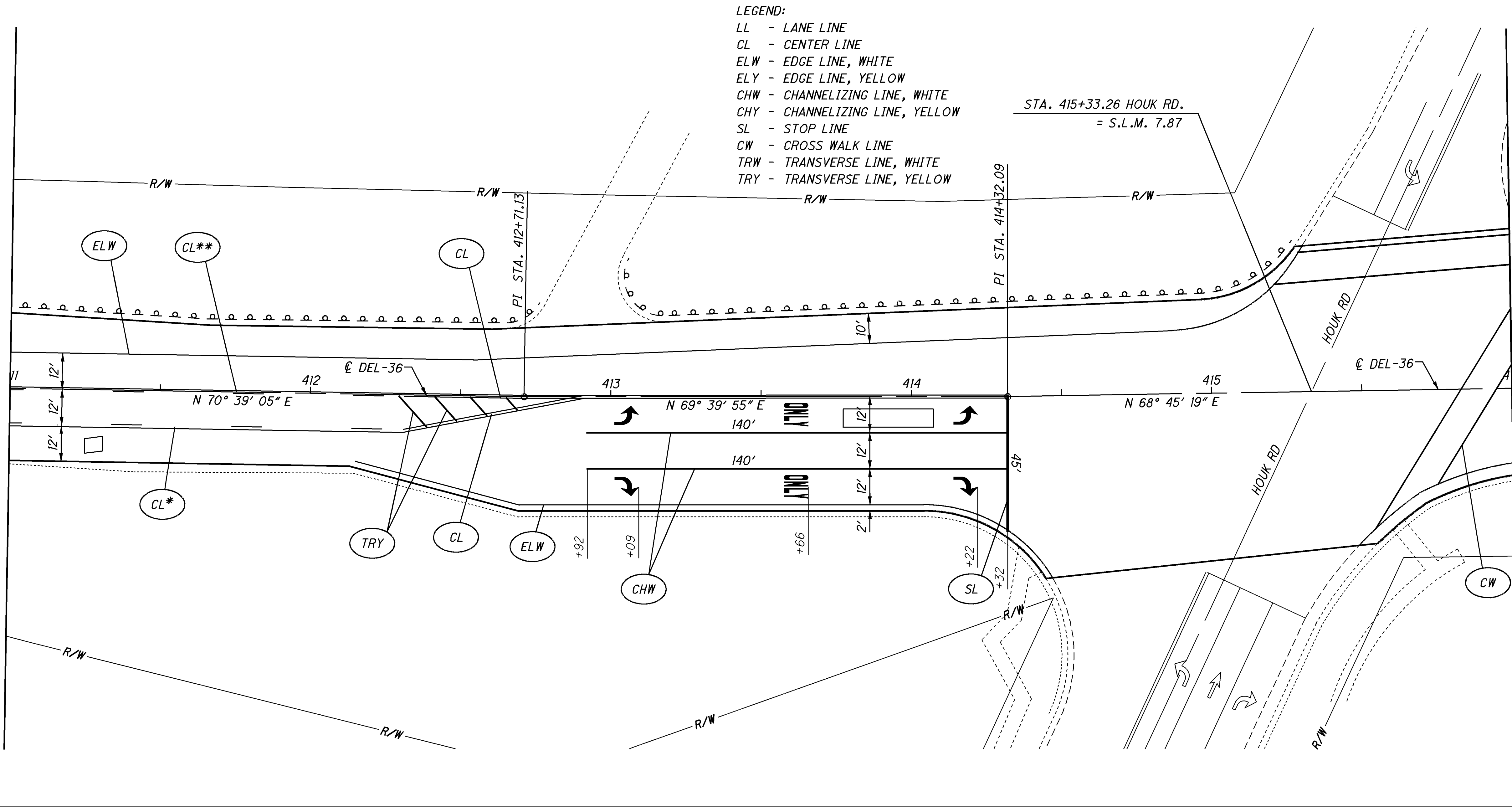


PAVEMENT PLAN DEL-36
 STA 406+00 TO STA 411+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254		442		690		644		644		644		REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	SQ YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	CU YD	TRACKLESS TACK COAT	GAL	EDGE LINE, WHITE	MILE	CENTER LINE (PASS / NO PASS)	MILE	LANE ARROW, LEFT	EACH	
US-36	406+00.00	411+00.00	1	46	2,573		107		193			0.09		0.19		2	
TOTALS CARRIED TO 19/93 & 22/93					2,573		107		193			0.09		0.19		2	PAVEMENT MARKING

DEL-36-7.28
 DEL-521-1.76

MATCHLINE STA 411+00
SEE SHEET 33.



- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

STA. 415+33.26 HOUK RD.
= S.L.M. 7.87

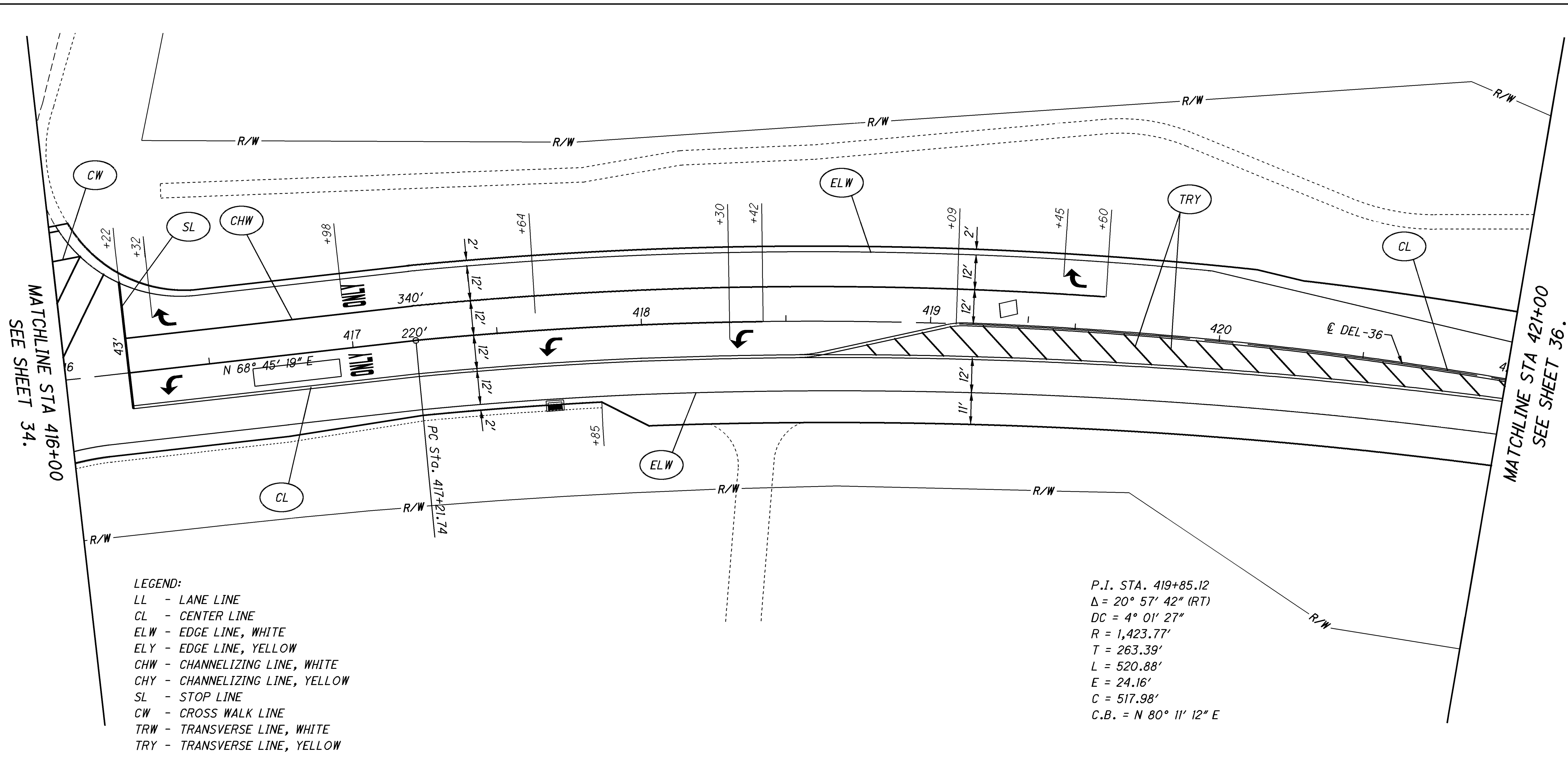
CALCULATED
CHECKED

HORIZONTAL SCALE IN FEET

PAVEMENT PLAN DEL-36
STA 411+00 TO STA 416+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLACING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	REMARKS	
					SQ YD	CU YD		GAL	EACH												EACH
US-36	411+00.00	416+00.00	1	68	3,791	158	284	2	2												
US-36	411+00.00	416+00.00								0.09	0.08	0.05	280	45	345	38	2	2	2	PAVEMENT MARKING	
TOTALS CARRIED TO 19/93 & 22/93					3,791	158	284	2	2	0.09	0.08	0.05	280	45	345	38	2	2	2		

DEL-36-7.28
DEL-521-1.76



LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

P.I. STA. 419+85.12
 $\Delta = 20^\circ 57' 42''$ (RT)
 $DC = 4^\circ 01' 27''$
 $R = 1,423.77'$
 $T = 263.39'$
 $L = 520.88'$
 $E = 24.16'$
 $C = 517.98'$
 $C.B. = N 80^\circ 11' 12'' E$

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		LOOP DETECTOR TIE IN	EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	STOP LINE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	REMARKS	
					SQ YD	CU YD		GAL	EACH											EACH
US-36	416+00.00	421+00.00	1	58	3,202	133	240	2	2											
US-36	416+00.00	421+00.00									0.19	0.14	560	43	219	3	2	2	PAVEMENT MARKING	
TOTALS CARRIED TO 19/93 & 22/93					3,202	133	240	2	2		0.19	0.14	560	43	219	3	2	2		



PAVEMENT PLAN DEL-36
 STA 416+00 TO STA 421+00

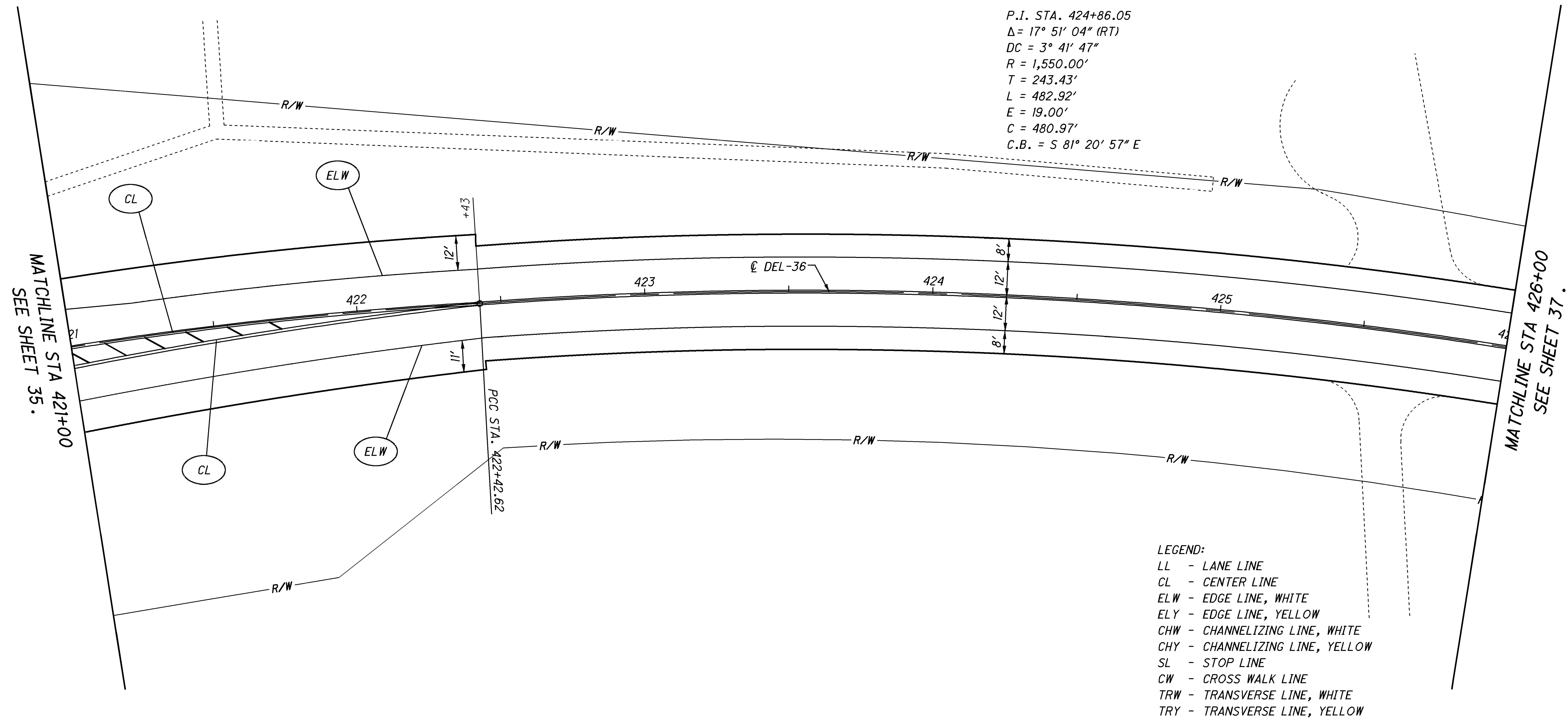
DEL-36-7.28
 DEL-521-1.76



CALCULATED
CHECKED

**PAVEMENT PLAN DEL-36
STA 421+00 TO STA 426+00**

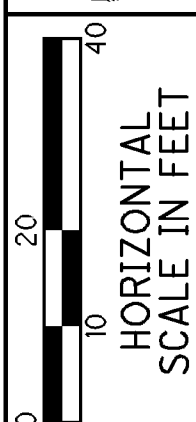
**DEL-36-7.28
DEL-521-1.76**



P.I. STA. 424+86.05
 $\Delta = 17^\circ 51' 04''$ (RT)
 $DC = 3^\circ 41' 47''$
 $R = 1,550.00'$
 $T = 243.43'$
 $L = 482.92'$
 $E = 19.00'$
 $C = 480.97'$
 $C.B. = S 81^\circ 20' 57'' E$

LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

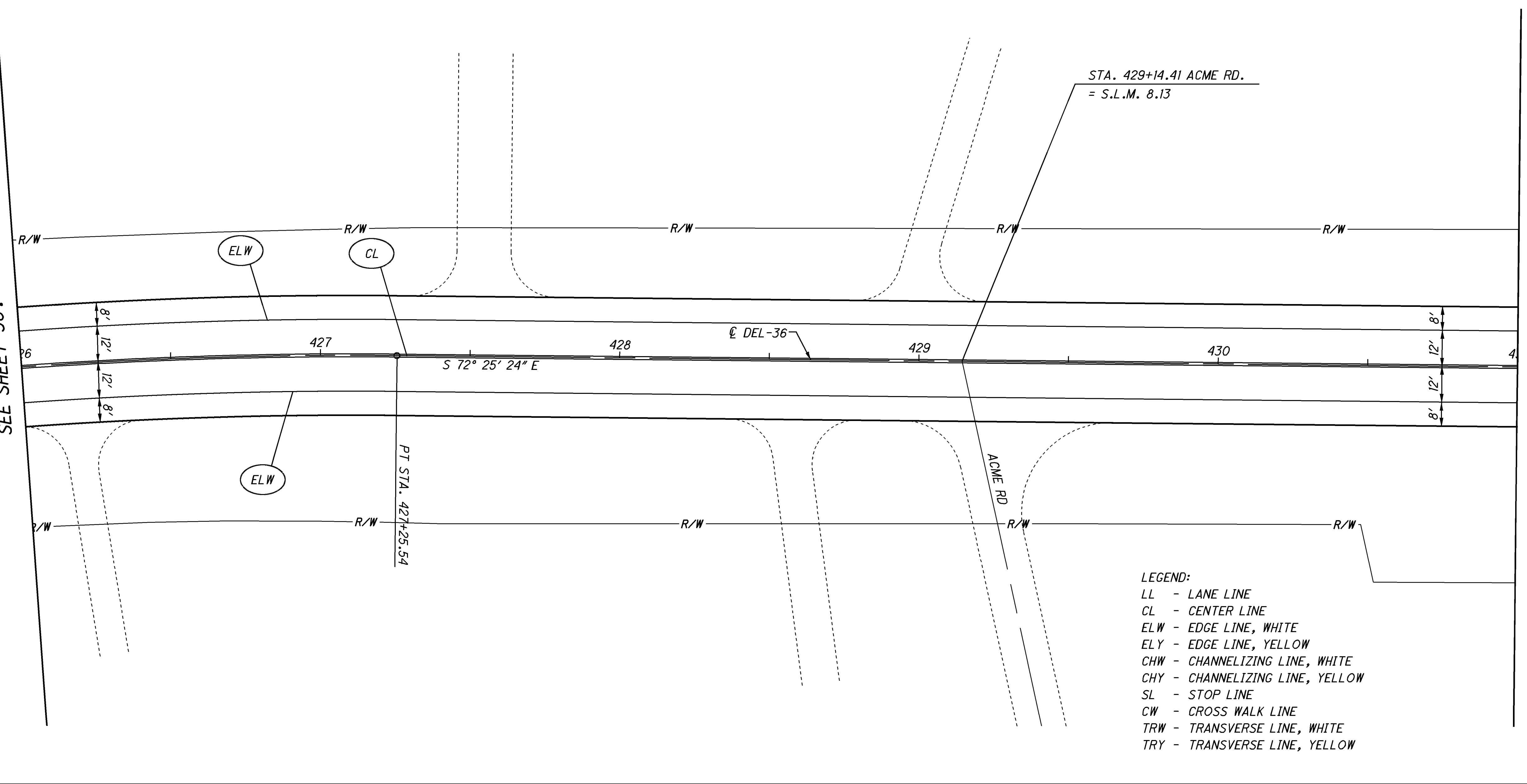
REF. NO.	BEGIN STATION	END STATION	TYPICAL		PAVEMENT PLANNING			MARKING			REMARKS
			AVG. PAVEMENT AND SHOULDER WIDTH		PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	TRANSVERSE/DIAGONAL LINE, YELLOW	
					SQ YD	CU YD	GAL	MILE	MILE	FT	
US-36	421+00.00	422+43.00	1	51	805	34	60				
US-36	422+43.00	426+00.00	1	40	1,587	66	119				
US-36	421+00.00	426+00.00						0.19	0.12	43	PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,392	100	179	0.19	0.12	43	



CALCULATED
CHECKED

MATCHLINE STA 426+00
SEE SHEET 36.

MATCHLINE STA 431+00
SEE SHEET 38.



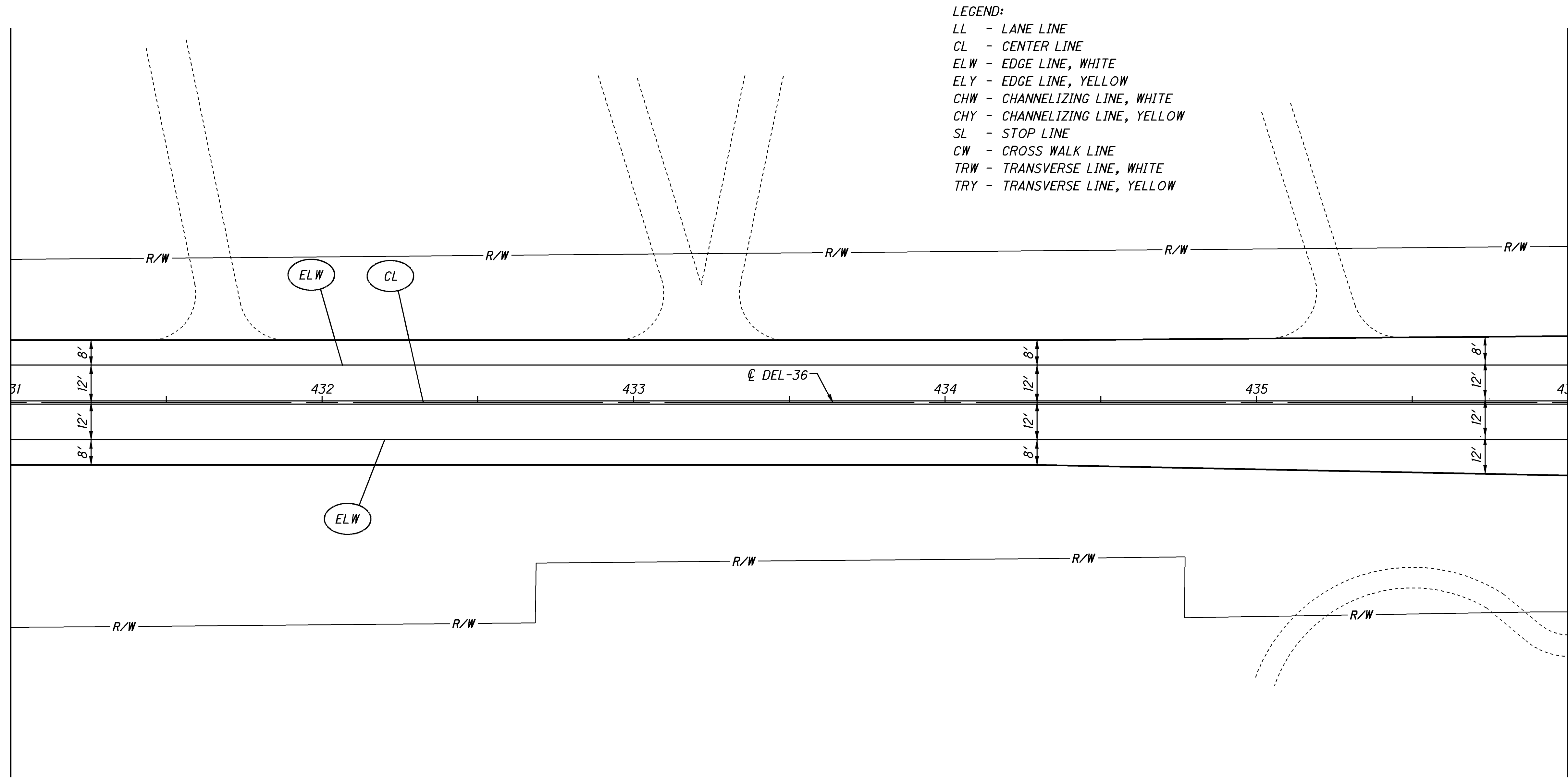
- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)			ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)			TRACKLESS TACK COAT			EDGE LINE, WHITE		CENTER LINE (DOUBLE SOLID)		REMARKS	
					SQ YD	CU YD													
US-36	426+00.00	431+00.00	1	40	2,222	93													
US-36	426+00.00	431+00.00												0.19	0.09				PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,222	93								0.19	0.09				

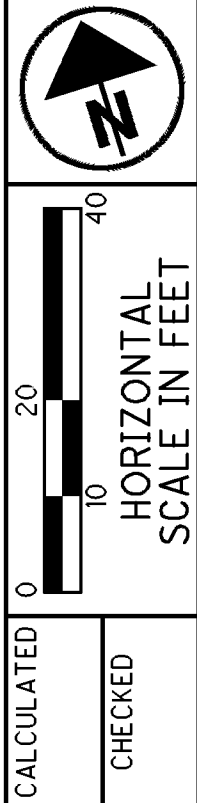
PAVEMENT PLAN DEL-36
STA 426+00 TO STA 431+00

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 431+00
SEE SHEET 37.



MATCHLINE STA 436+00
SEE SHEET 39.

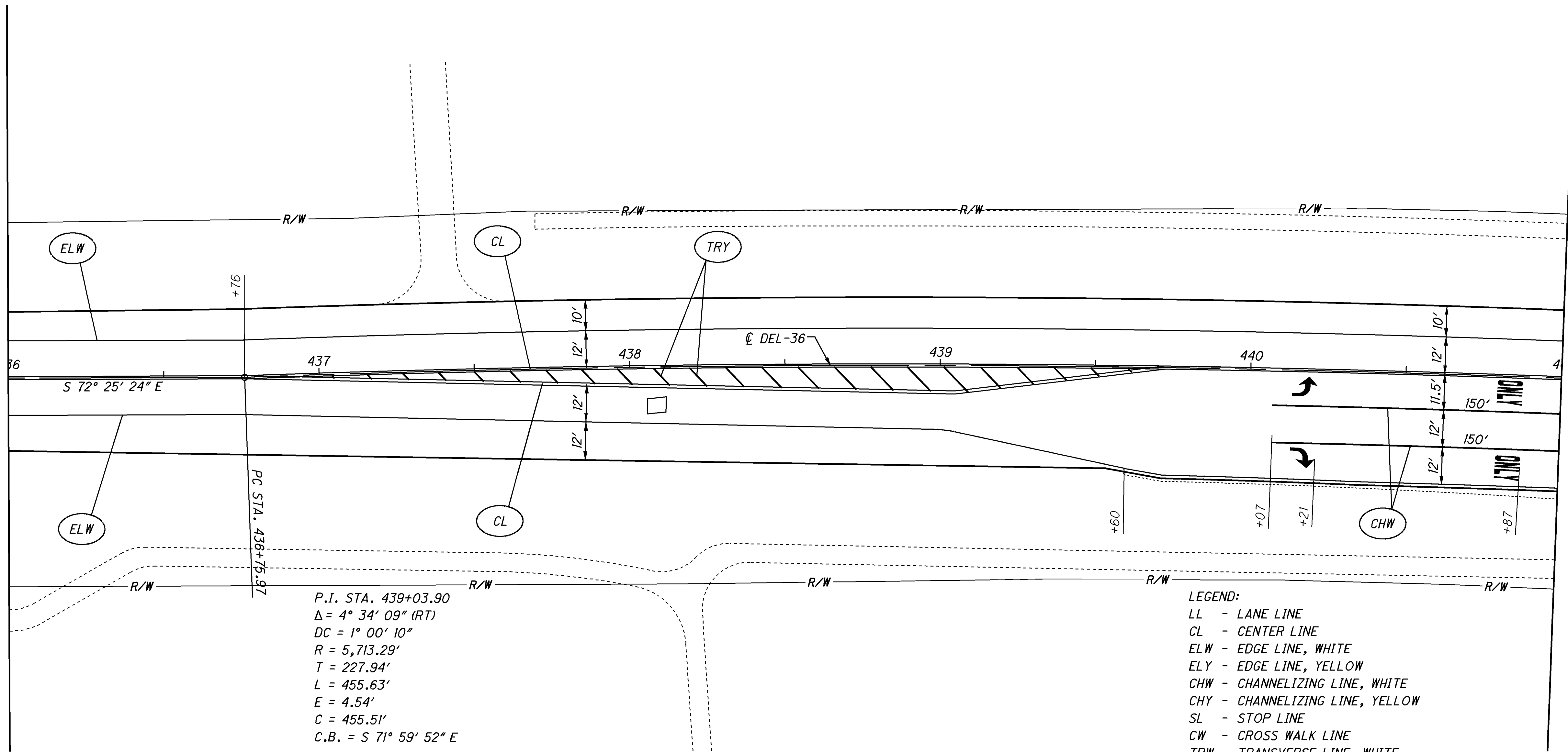


PAVEMENT PLAN DEL-36
STA 431+00 TO STA 436+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL AVG. PAVEMENT AND SHOULDER WIDTH	254			442			690			644			644			REMARKS		
				PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	SQ YD	2,267	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	CU YD	94	TRACKLESS TACK COAT	GAL	170	EDGE LINE, WHITE	MILE	0.19	CENTER LINE (DOUBLE SOLID)	MILE	0.09			
US-36	431+00.00	436+00.00	1 41																		
US-36	431+00.00	436+00.00																		PAVEMENT MARKING	
TOTALS CARRIED TO 19/93 & 22/93						2,267				94											

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 436+00
SEE SHEET 38.



MATCHLINE STA 441+00
SEE SHEET 40.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

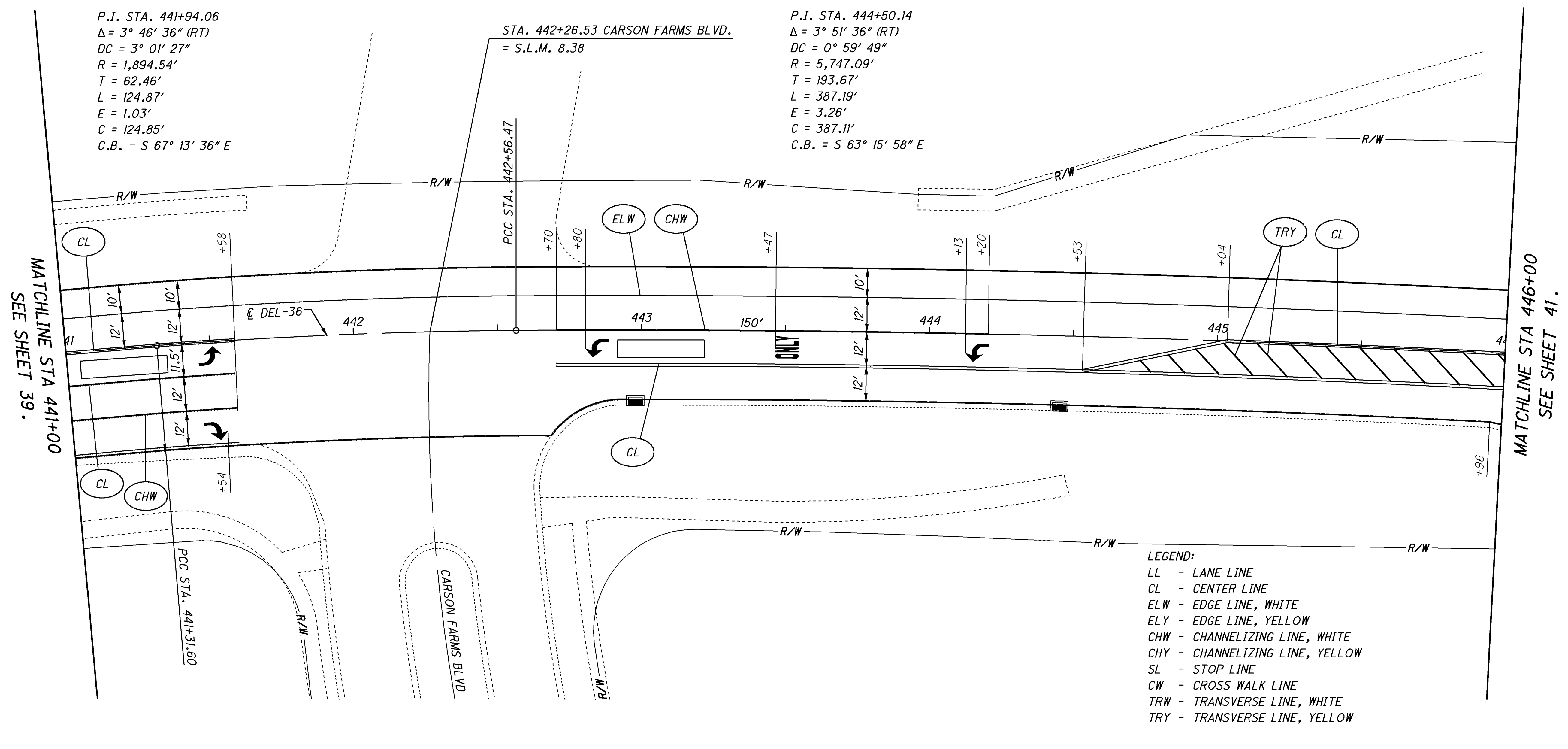
REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	690	632	632	644	644	644	644	644	644	644	REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, "2", "ONLY"	
					SQ YD	CU YD	GAL	EACH	EACH	MILE	MILE	FT	FT	EACH	EACH	EACH	
US-36	436+00.00	441+00.00	1	53	2,929	122	220	1	1								
US-36	436+00.00	441+00.00								0.19	0.15	300	142	1	1	2	PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,929	122	220	1	1	0.19	0.15	300	142	1	1	2	

CALCULATED 0
CHECKED 40

HORIZONTAL SCALE IN FEET

PAVEMENT PLAN DEL-36
STA 436+00 TO STA 441+00

DEL-36-7.28
DEL-521-1.76



P.I. STA. 441+94.06
 $\Delta = 3^\circ 46' 36''$ (RT)
 $DC = 3^\circ 01' 27''$
 $R = 1,894.54'$
 $T = 62.46'$
 $L = 124.87'$
 $E = 1.03'$
 $C = 124.85'$
 $C.B. = S 67^\circ 13' 36'' E$

STA. 442+26.53 CARSON FARMS BLVD.
 = S.L.M. 8.38

P.I. STA. 444+50.14
 $\Delta = 3^\circ 51' 36''$ (RT)
 $DC = 0^\circ 59' 49''$
 $R = 5,747.09'$
 $T = 193.67'$
 $L = 387.19'$
 $E = 3.26'$
 $C = 387.11'$
 $C.B. = S 63^\circ 15' 58'' E$

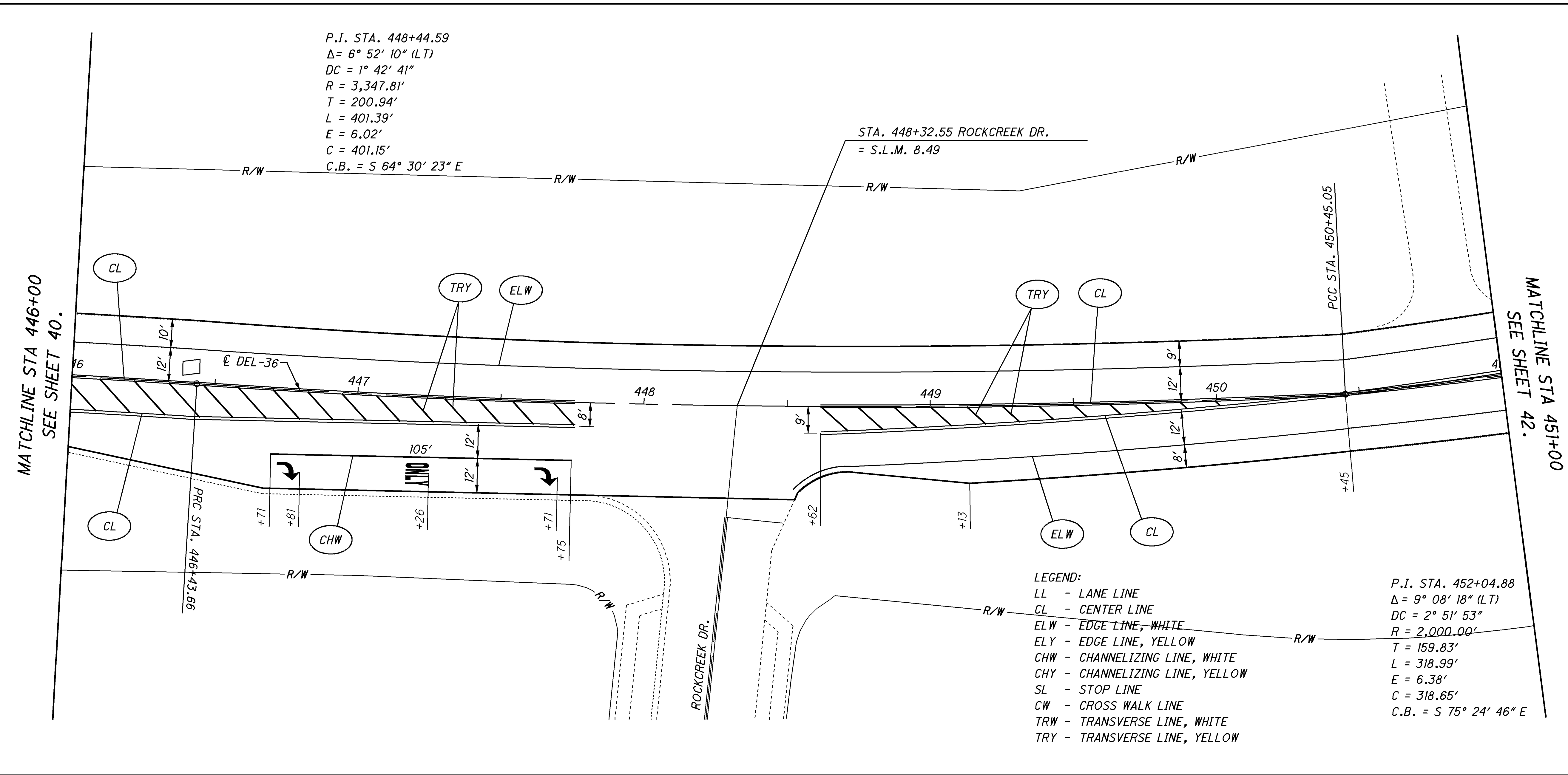
LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW



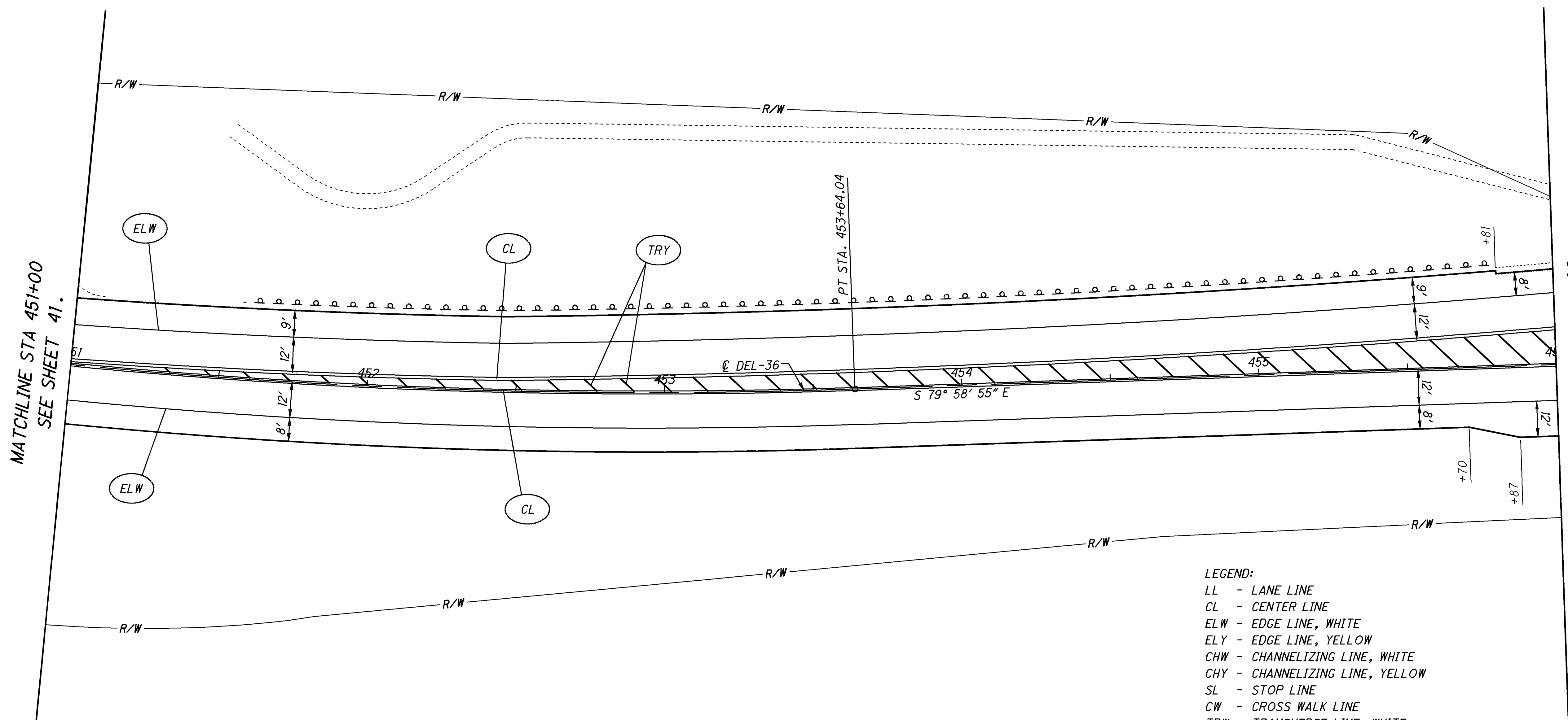
PAVEMENT PLAN DEL-36
 STA 441+00 TO STA 446+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	690	632	632	644	644	644	644	644	644	REMARKS	
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, RIGHT		WORD ON PAVEMENT, 72", "ONLY"
					SQ YD	CU YD	GAL	EACH	EACH	MILE	MILE	FT	FT	EACH	EACH	EACH	
US-36	441+00.00	446+00.00	1	50	2,796	117	210	2	2								
US-36	441+00.00	446+00.00								0.11	0.17	150	149	3	1	1	
TOTALS CARRIED TO 19/93 & 22/93					2,796	117	210	2	2	0.11	0.17	150	149	3	1	1	PAVEMENT MARKING

DEL-36-7.28
 DEL-521-1.76



REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	REMARKS
					SQ YD	CU YD		GAL	EACH							
US-36	446+00.00	451+00.00	1	49	2,723	113	204	1	1							
US-36	446+00.00	451+00.00								0.14	0.16	105	281	2	1	PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,723	113	204	1	1	0.14	0.16	105	281	2	1	



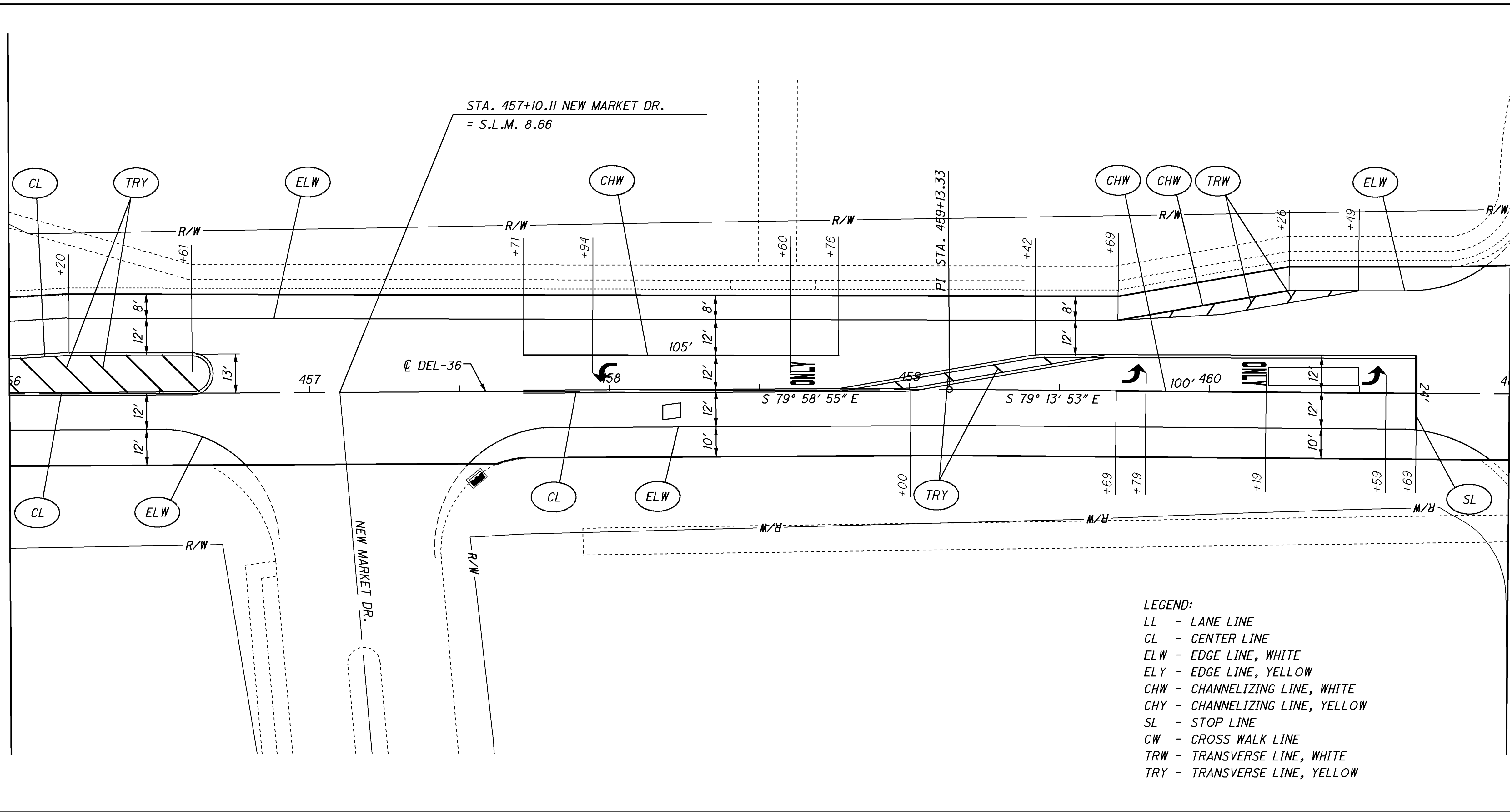
LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT												REMARKS	
					SQ YD	CU YD														GAL
US-36	451+00.00	456+00.00	1	47	2,615	109	196													
US-36	451+00.00	456+00.00																		PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,615	109	196													

MATCHLINE STA 451+00
SEE SHEET 41.

MATCHLINE STA 456+00
SEE SHEET 43.

MATCHLINE STA 456+00
SEE SHEET 42.



MATCHLINE STA 461+00
SEE SHEET 44.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL		254		442		690		632		632		644		644		644		644		644		REMARKS
			AVG. PAVEMENT AND SHOULDER WIDTH		PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	WORD ON PAVEMENT, 12", "ONLY"									
					SQ YD	CU YD	GAL	EACH	EACH	MILE	MILE	FT	FT	FT	EACH	EACH									
US-36	456+00.00	459+69.00	1	55	2,261	94	170	2	2																
US-36	459+69.00	461+00.00	1	62	896	37	67																		
US-36	456+00.00	461+00.00								0.19	0.12	205	20	99	3	2								PAVEMENT MARKING	
TOTALS CARRIED TO 19/93 & 22/93					3,157	131	237	2	2	0.19	0.12	205	20	99	3	2									



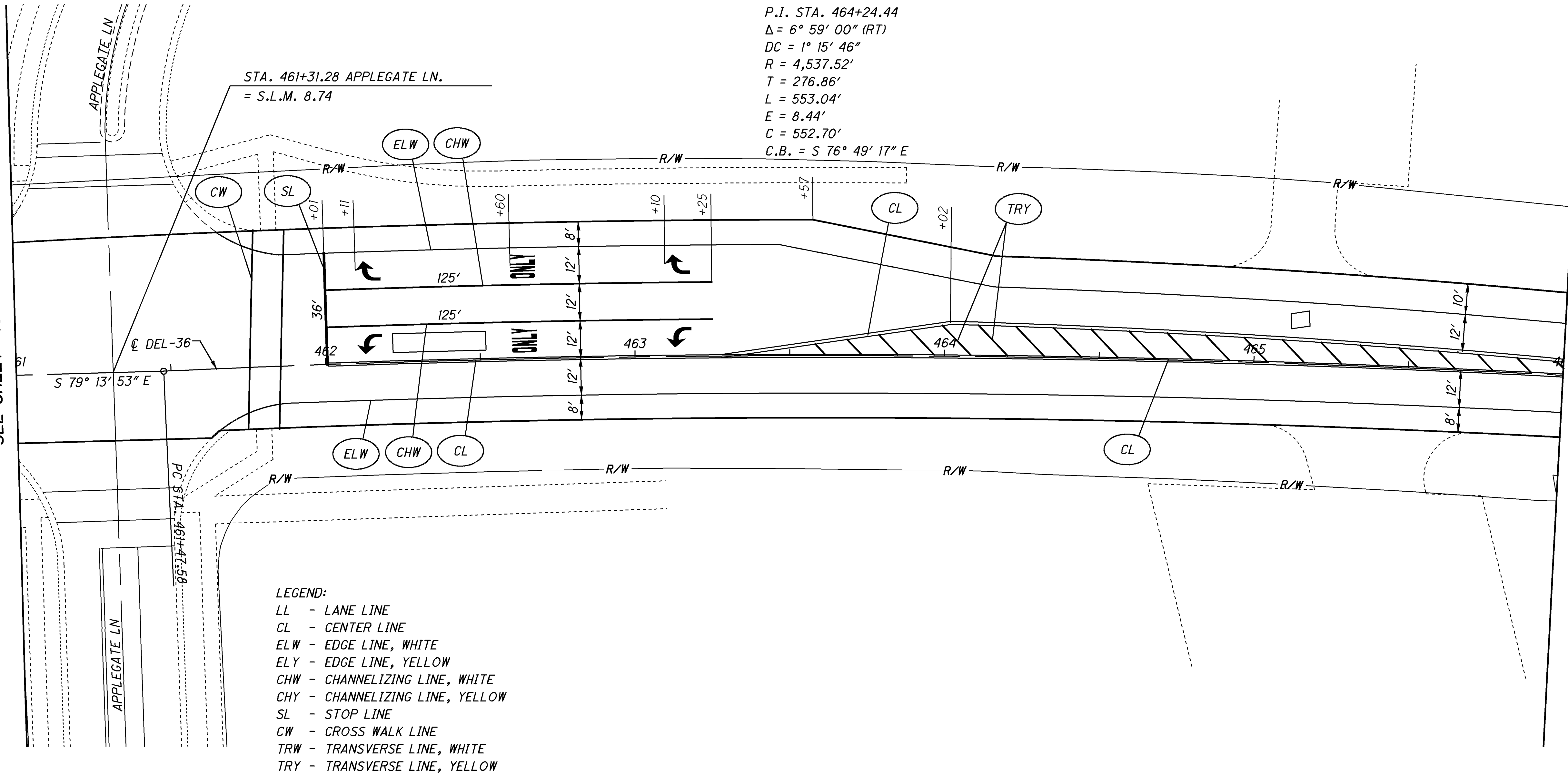
CALCULATED
CHECKED

PAVEMENT PLAN DEL-36
STA 456+00 TO STA 461+00

DEL-36-7.28
DEL-521-1.76

43
93

MATCHLINE STA 461+00
SEE SHEET 43.



MATCHLINE STA 466+00
SEE SHEET 45.

- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

P.I. STA. 464+24.44
 Δ = 6° 59' 00" (RT)
 DC = 1° 15' 46"
 R = 4,537.52'
 T = 276.86'
 L = 553.04'
 E = 8.44'
 C = 552.70'
 C.B. = S 76° 49' 17" E

CALCULATED
 CHECKED

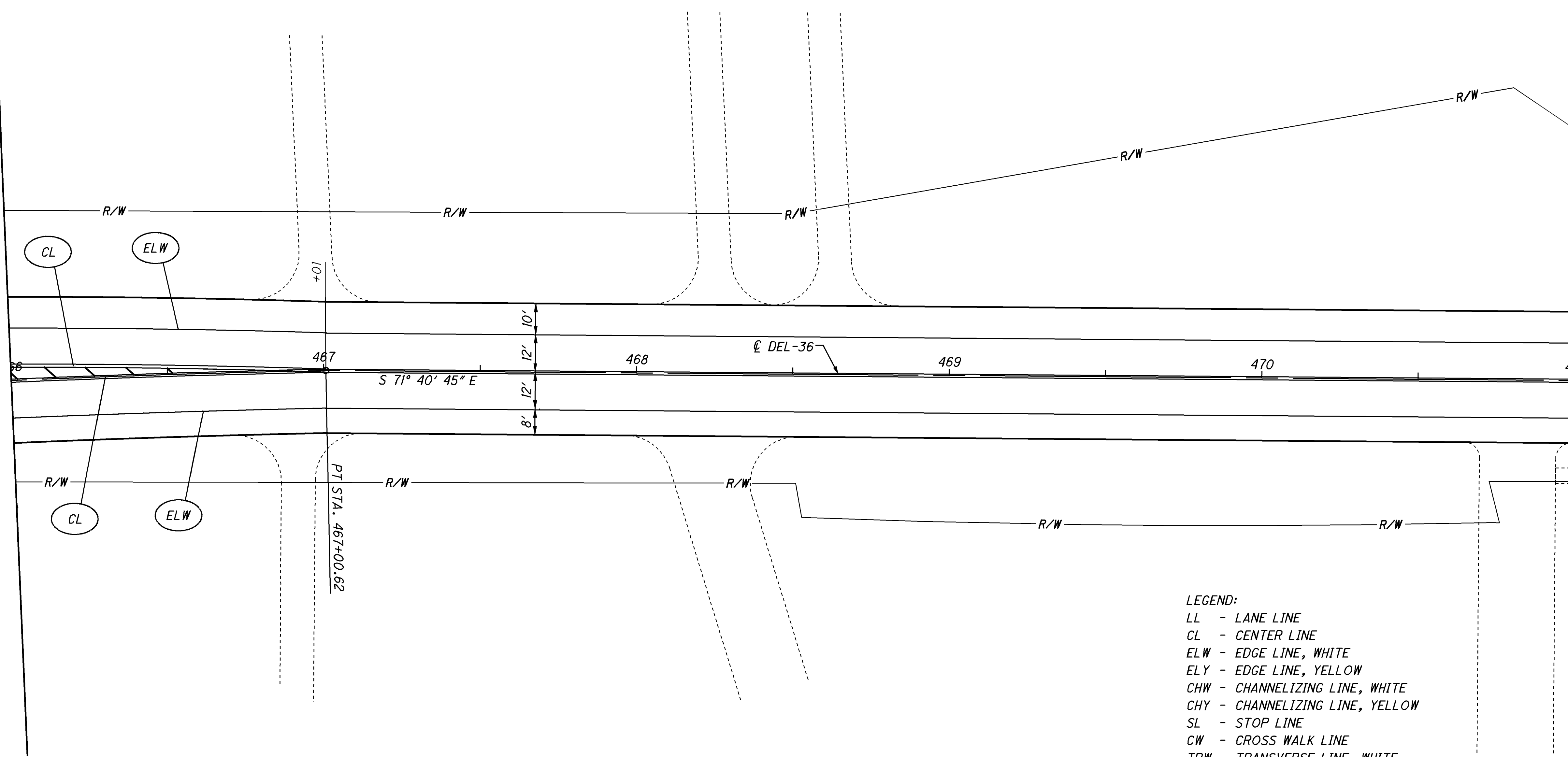
0 20 40
 HORIZONTAL
 SCALE IN FEET

PAVEMENT PLAN DEL-36
 STA 461+00 TO STA 466+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254		442		690		632		632		644		644		644		644		644		REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)																			
					SQ YD	CU YD			GAL			EACH	EACH		MILE	MILE	FT	FT	FT	FT	EACH	EACH	EACH		
US-36	461+00.00	463+57.00	1	65	1,845	77			138			2	2												
US-36	463+57.00	466+00.00	1	52	1,402	58			105																
US-36	461+00.00	466+00.00													0.19	0.15	250	36	128	200	2	2	2	PAVEMENT MARKING	
TOTALS CARRIED TO 19/93 & 22/93					3,247	135			243			2	2		0.19	0.15	250	36	128	200	2	2	2		

DEL-36-7.28
 DEL-521-1.76

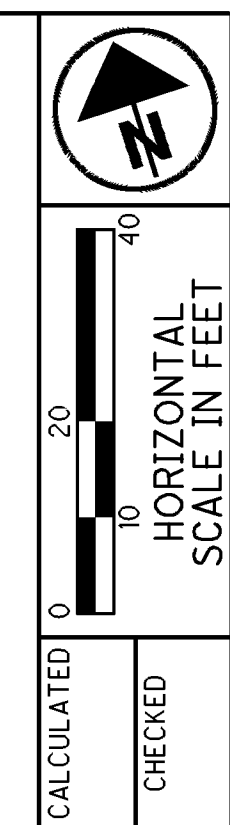
MATCHLINE STA 466+00
SEE SHEET 44.



MATCHLINE STA 471+00
SEE SHEET 46.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	MARKING			REMARKS
					SQ YD	CU YD		GAL	MILE	MILE	
US-36	466+00.00	467+01.00	1	44	498	21	37				
US-36	467+01.00	471+00.00	1	42	1,863	78	140				
US-36	466+00.00	471+00.00						0.19	0.11	20	PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,361	99	177	0.19	0.11	20	



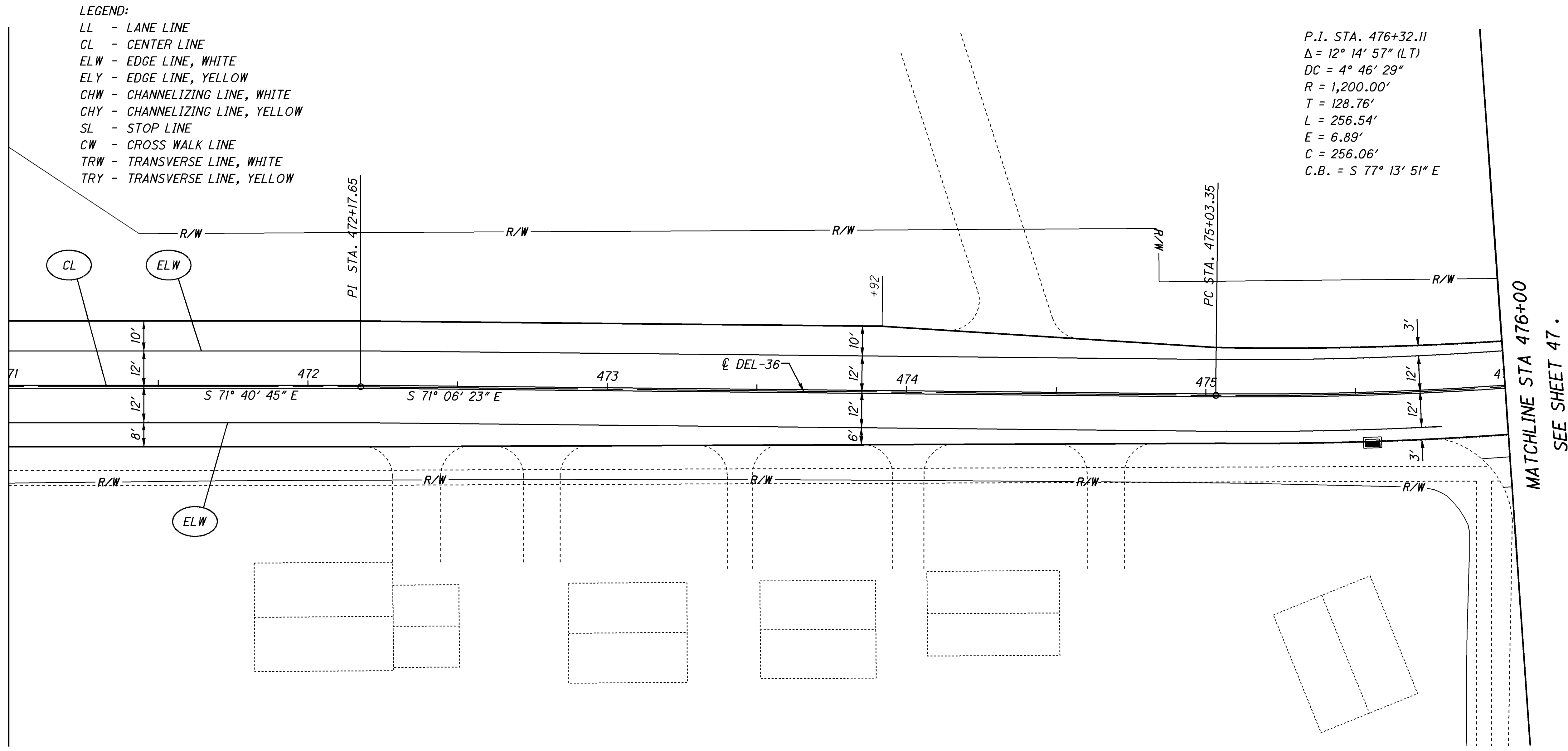
CALCULATED
CHECKED

PAVEMENT PLAN DEL-36
STA 466+00 TO STA 471+00

DEL-36-7.28
DEL-521-1.76

45
93

MATCHLINE STA 471+00
SEE SHEET 45.



P.I. STA. 476+32.11
 $\Delta = 12^\circ 14' 57''$ (LT)
 $DC = 4^\circ 46' 29''$
 $R = 1,200.00'$
 $T = 128.76'$
 $L = 256.54'$
 $E = 6.89'$
 $C = 256.06'$
 $C.B. = S 77^\circ 13' 51'' E$

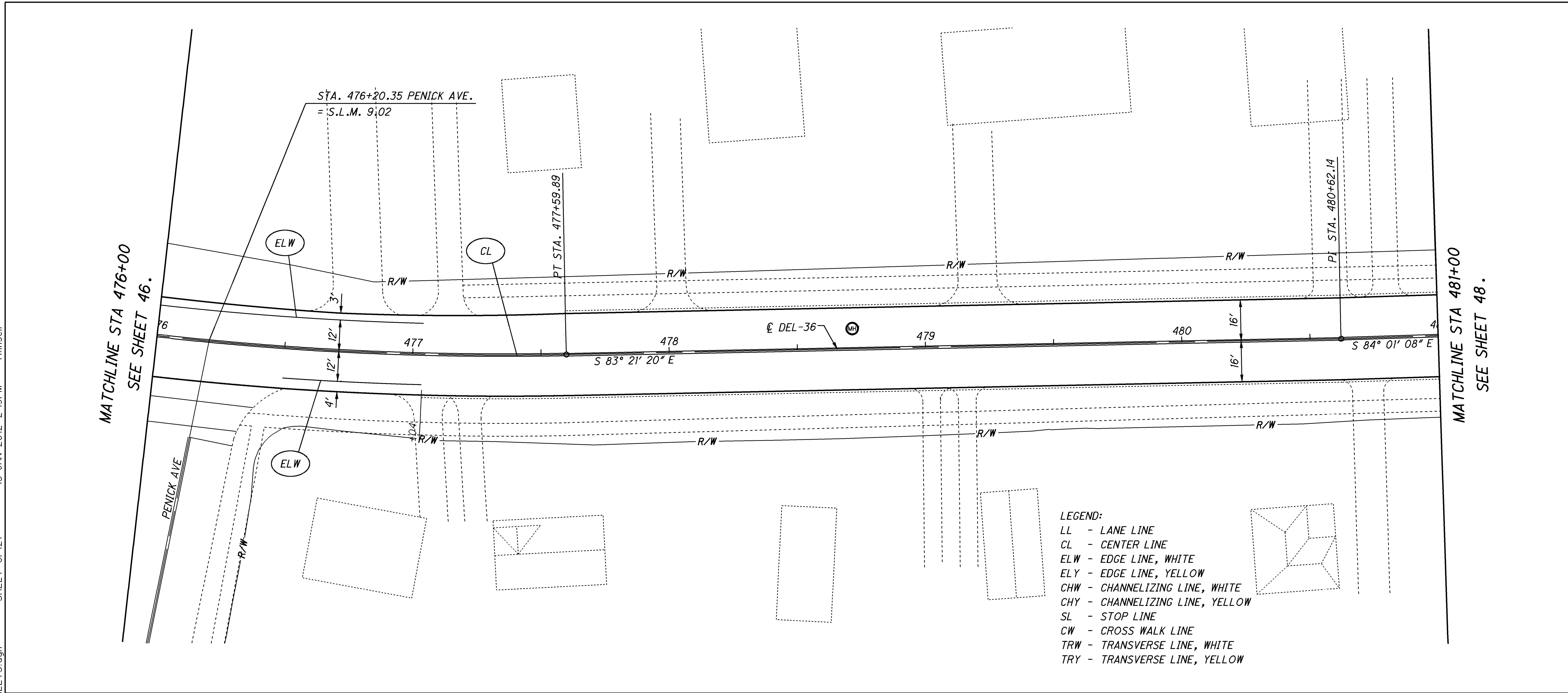
CALCULATED
 CHECKED

0 20 40
 HORIZONTAL
 SCALE IN FEET

PAVEMENT PLAN DEL-36
 STA 471+00 TO STA 476+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING			MATERIAL QUANTITIES		REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	
					SQ YD	CU YD	GAL	MILE	MILE	
US-36	471+00.00	476+00.00	1	38	2,121	88	159			
US-36	471+00.00	476+00.00						0.19	0.09	PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,121	88	159	0.19	0.09	

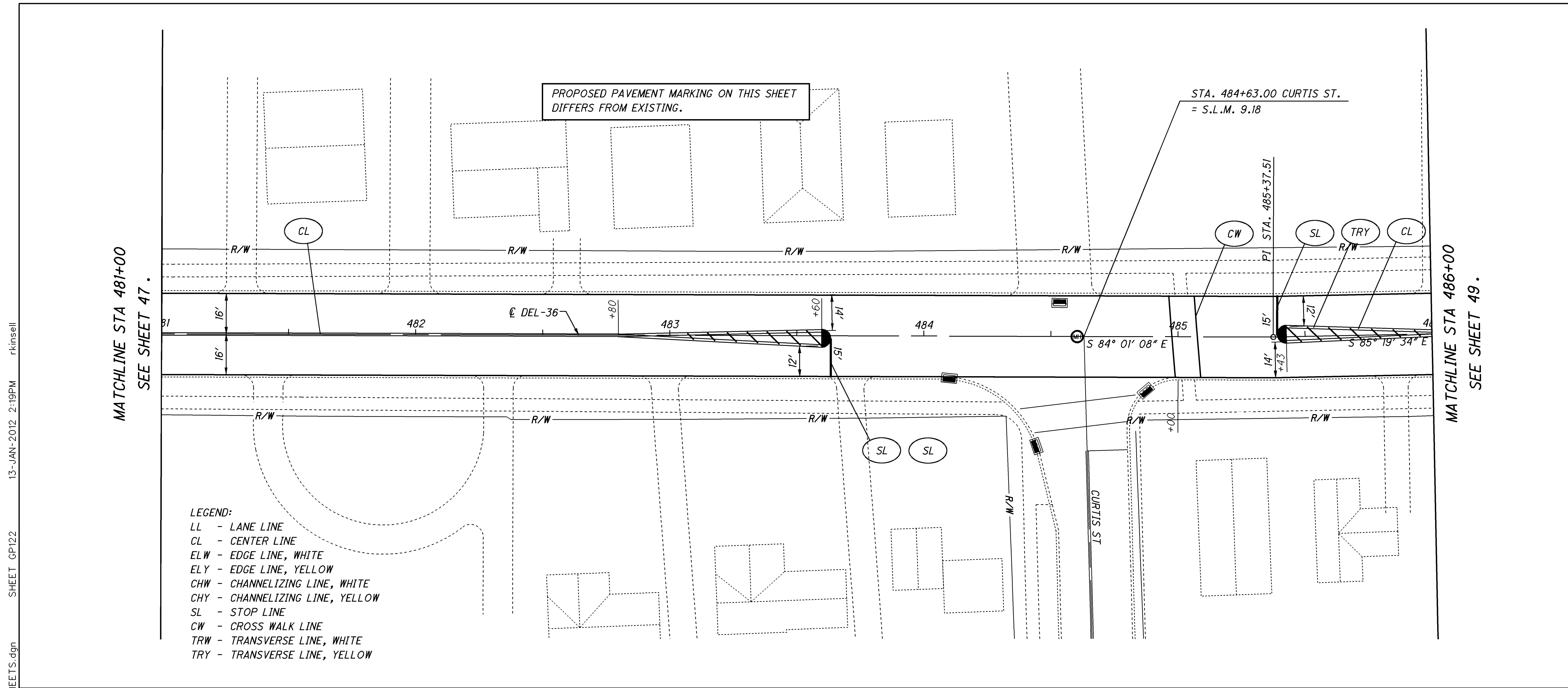
DEL-36-7.28
 DEL-521-1.76



PAVEMENT PLAN DEL-36
STA 476+00 TO STA 481+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT												REMARKS
					SQ YD	CU YD													
US-36	476+00.00	481+00.00	1	32	1,763	73	132												
US-36	476+00.00	481+00.00									0.03	0.09							PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					1,763	73	132				0.03	0.09							

DEL-36-7.28
DEL-521-1.76



CALCULATED
CHECKED

0 20 40
HORIZONTAL SCALE IN FEET

**PAVEMENT PLAN DEL-36
STA 481+00 TO STA 486+00**

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254			442			690			644			644			REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	SQ YD	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	CU YD	TRACKLESS TACK COAT	GAL	CENTER LINE (DOUBLE SOLID)	MILE	STOP LINE	FT	CROSSWALK LINE	FT	TRANSVERSE/DIAGONAL LINE, YELLOW	FT	
US-36	481+00.00	486+00.00	1	32	1,778		74		133				0.12	30	65	80				PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					1,778		74		133				0.12	30	65	80				

**DEL-36-7.28
DEL-521-1.76**

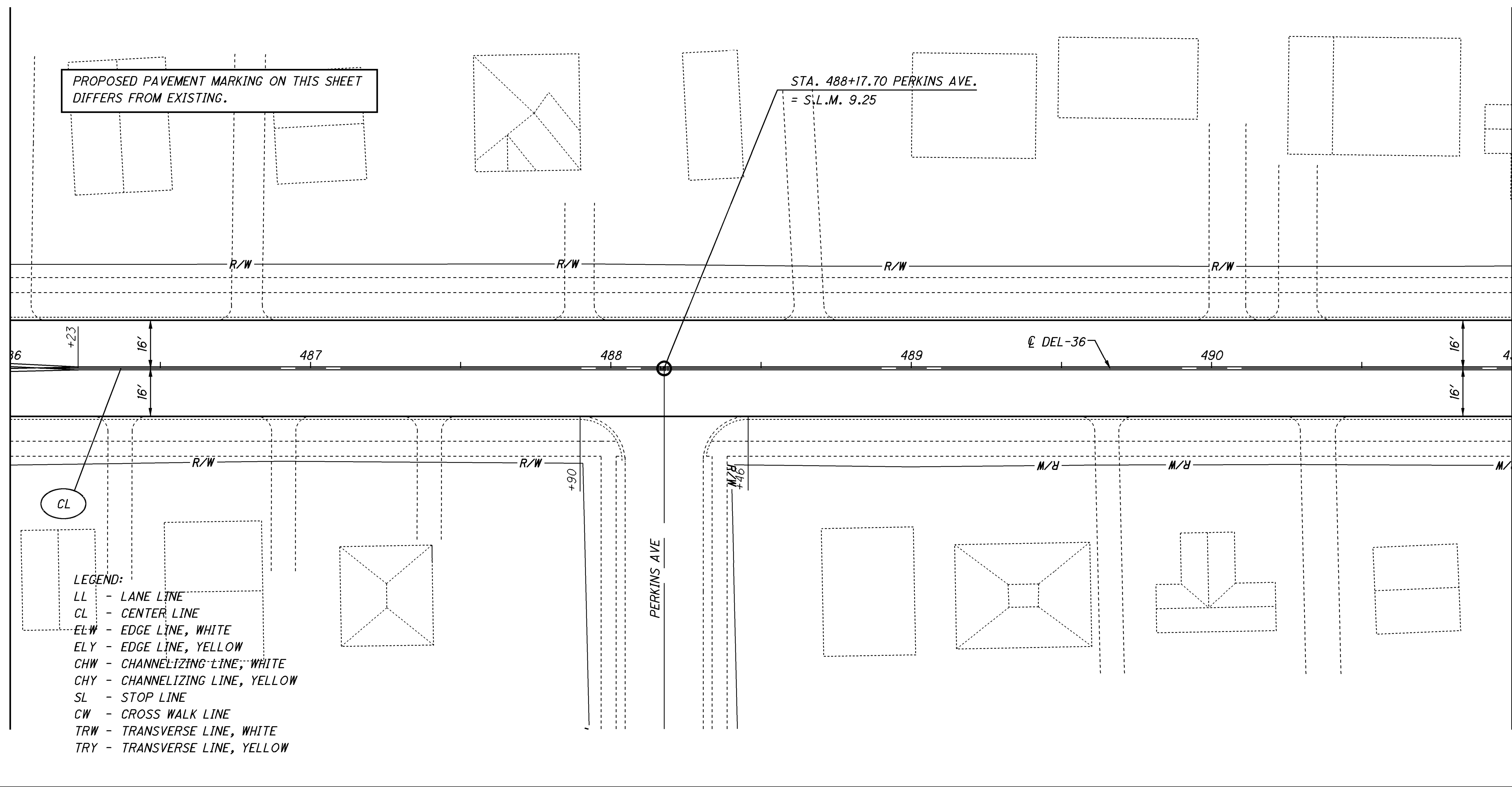
48
93

I:\Projects\del\036\0728\013\88636\production\roadway\sheet\PLAN SHEETS.dgn SHEET_GP122 13-JAN-2012 2:19PM rkinsell

MATCHLINE STA 481+00
SEE SHEET 47.

MATCHLINE STA 486+00
SEE SHEET 49.

MATCHLINE STA 486+00
SEE SHEET 48.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

CALCULATED
CHECKED

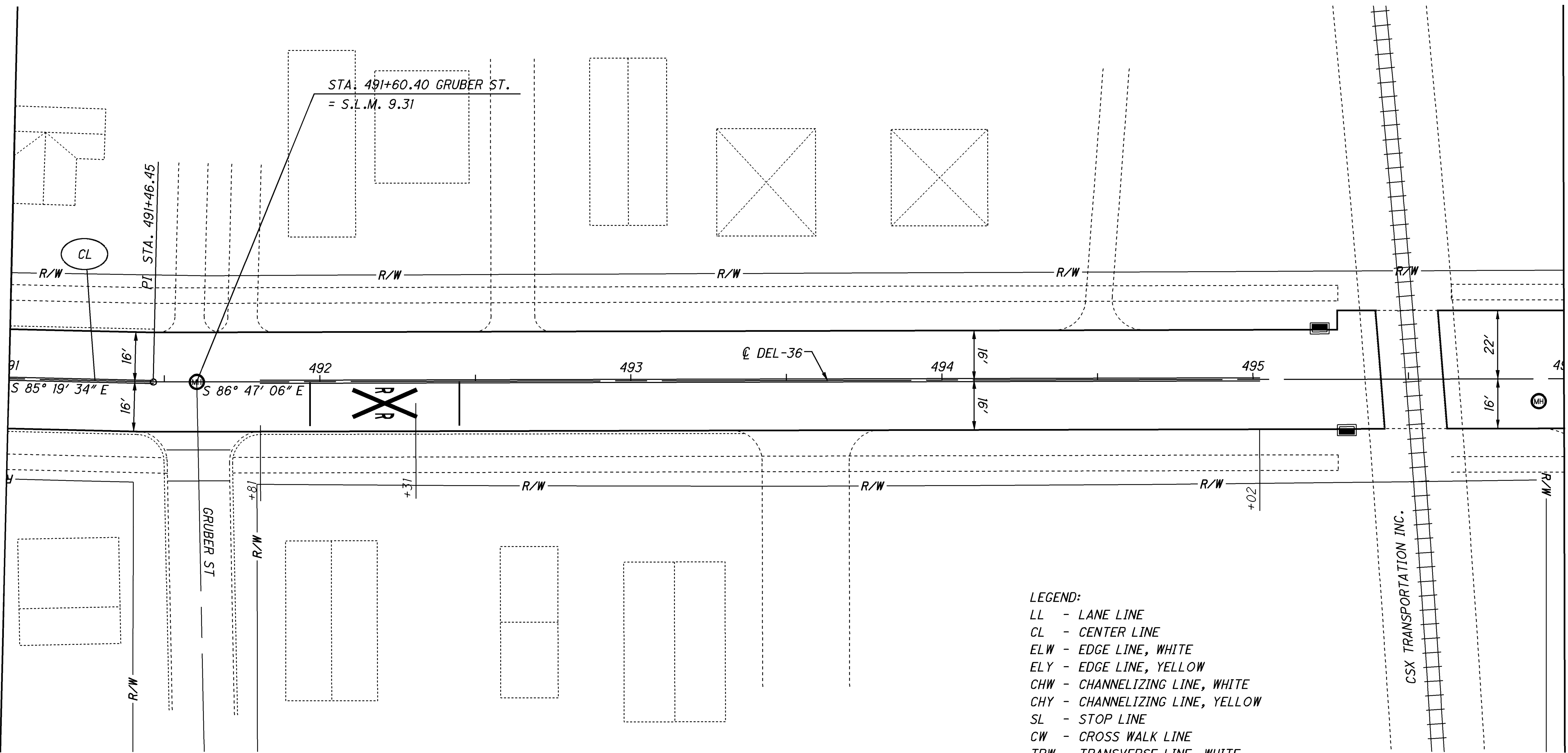
HORIZONTAL SCALE IN FEET

PAVEMENT PLAN DEL-36
STA 486+00 TO STA 491+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT												REMARKS
					SQ YD	CU YD													
US-36	486+00.00	491+00.00	1	32	1,778	74	133												
US-36	486+00.00	491+00.00											0.09						PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					1,778	74	133						0.09						

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 491+00
SEE SHEET 49.



MATCHLINE STA 496+00
SEE SHEET 51.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT												REMARKS
					SQ YD	CU YD													
					254	442	690					644	644						
US-36	491+00.00	495+41.08	1	32	1,577	66	118												
US-36	495+41.08	495+61.14	1																SKIP OVER RAILROAD
US-36	495+61.14	496+00.00	1	38	165	7	12												
US-36	491+00.00	496+00.00										0.09	1						PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					1,742	73	130					0.09	1						

CALCULATED
CHECKED

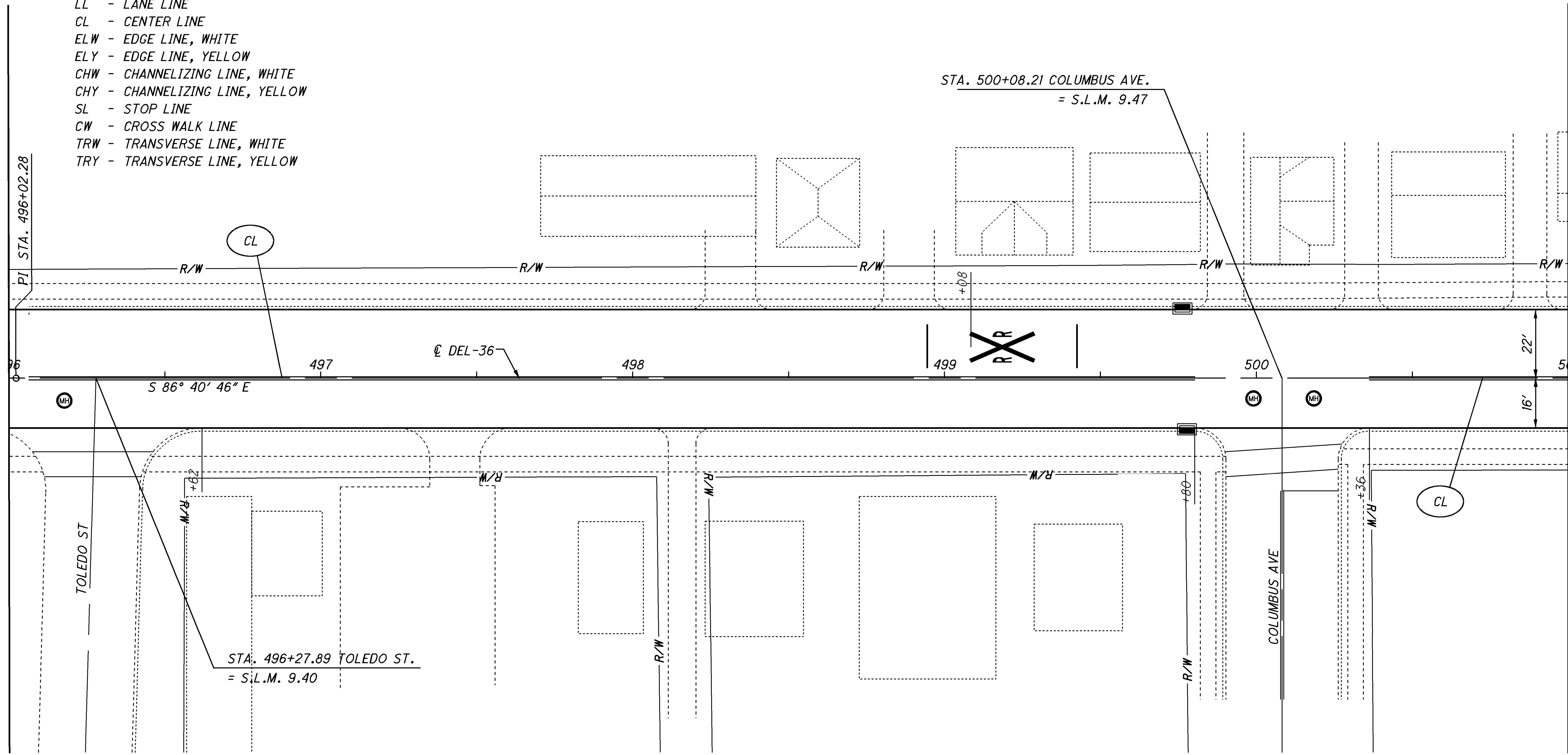
0 20 40
HORIZONTAL SCALE IN FEET

PAVEMENT PLAN DEL-36
STA 491+00 TO STA 496+00

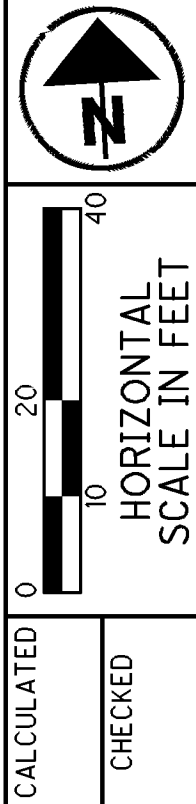
DEL-36-7.28
DEL-521-1.76

- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 496+00
SEE SHEET 50.



MATCHLINE STA 501+00
SEE SHEET 52.

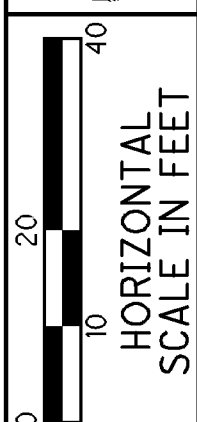


CALCULATED
CHECKED

PAVEMENT PLAN DEL-36
STA 496+00 TO STA 501+00

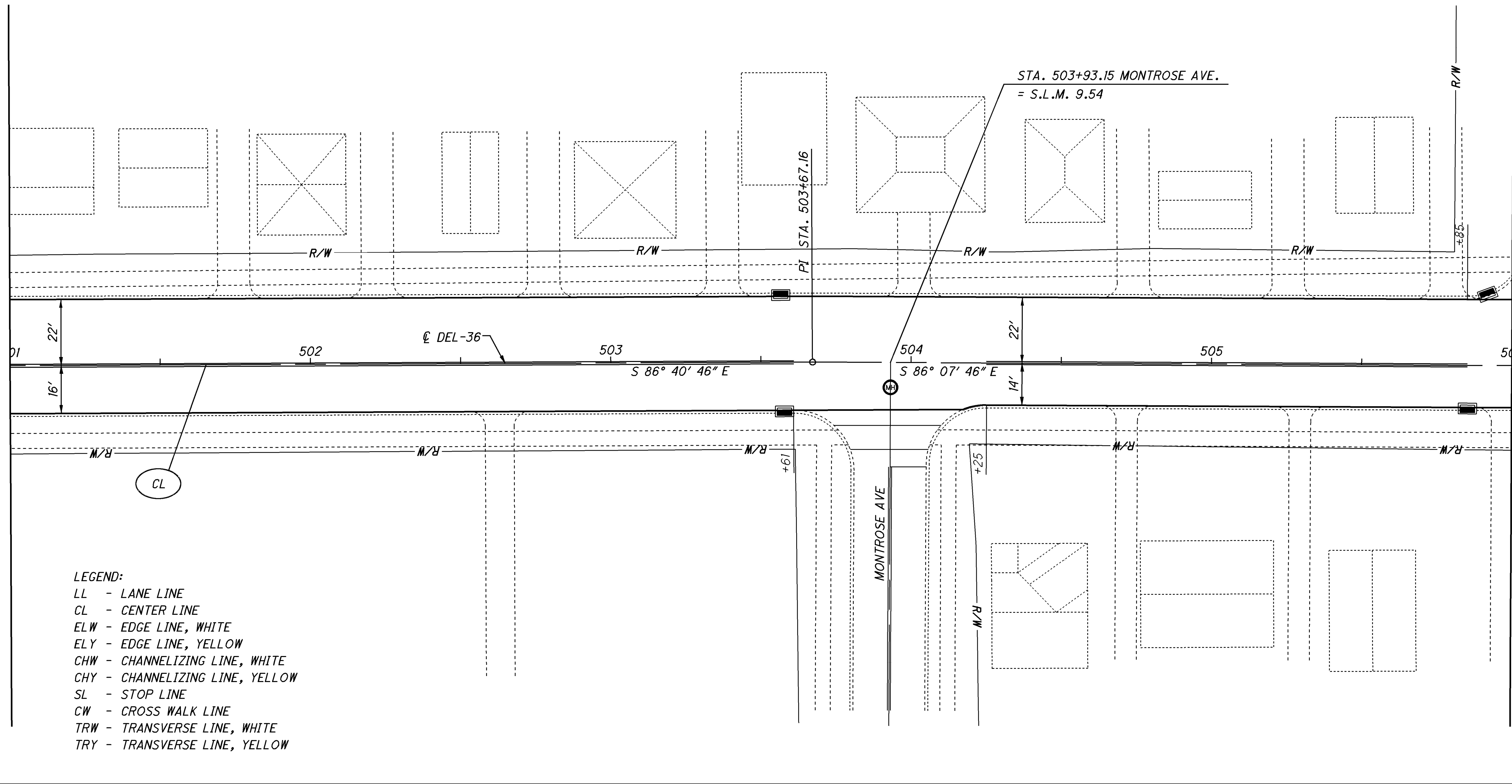
REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)			ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)			TRACKLESS TACK COAT			CENTER LINE (DOUBLE SOLID)		RAILROAD SYMBOL MARKING		REMARKS
					SQ YD	CU YD			GAL			MILE	EACH					
US-36	496+00.00	501+00.00	1	38	2,111	88			158				0.09	1				
US-36	496+00.00	501+00.00																PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,111	88			158				0.09	1				

DEL-36-7.28
DEL-521-1.76



CALCULATED
CHECKED

MATCHLINE STA 501+00
SEE SHEET 51.



MATCHLINE STA 506+00
SEE SHEET 53.

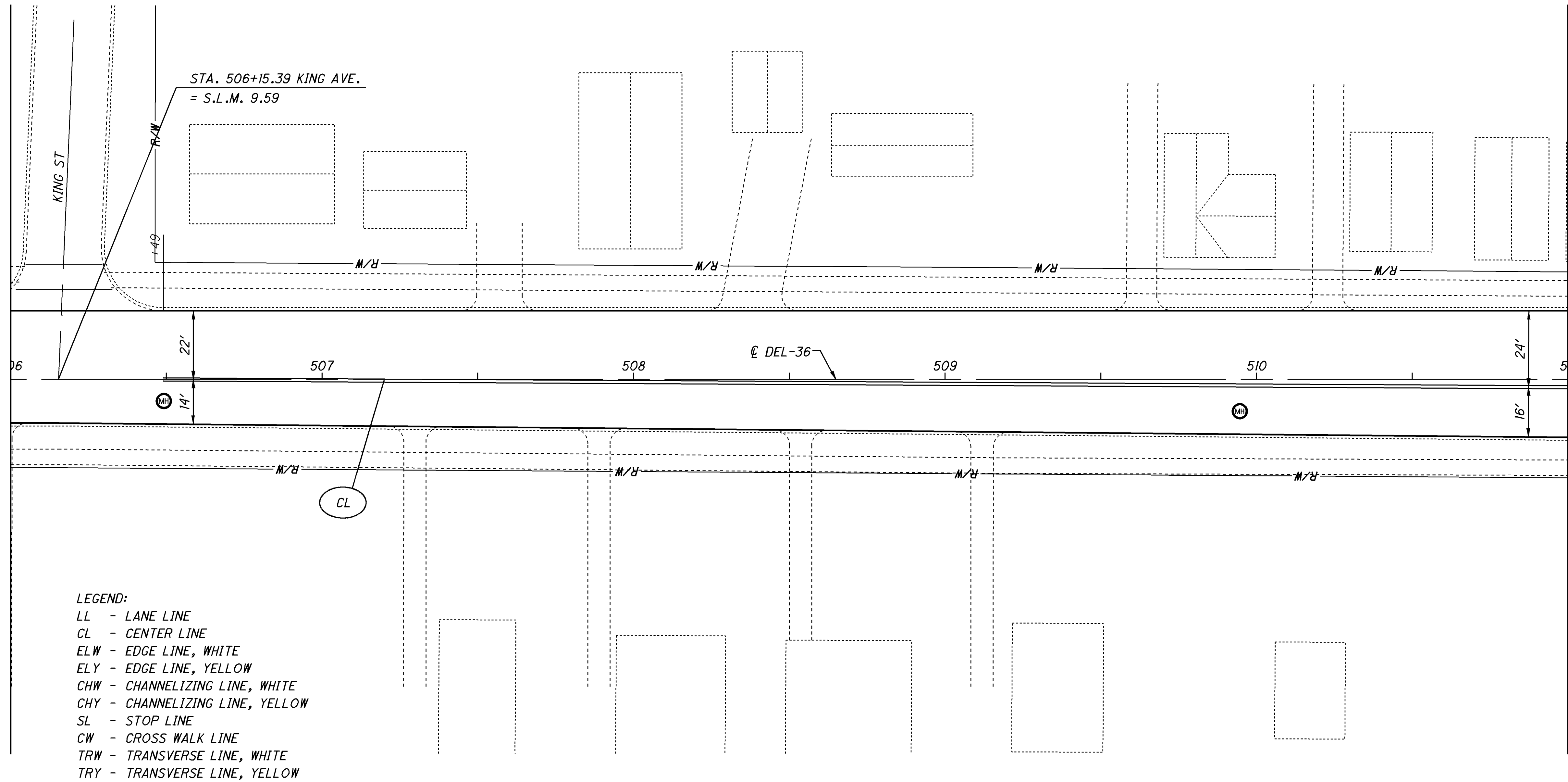
- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT												REMARKS
					SQ YD	CU YD													
US-36	501+00.00	506+00.00	1	37	2,070	86	155												
US-36	501+00.00	506+00.00										0.09							PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,070	86	155					0.09							

PAVEMENT PLAN DEL-36
STA 501+00 TO STA 506+00

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 506+00
SEE SHEET 52.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254		442		690		644		REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	SQ YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	CU YD	TRACKLESS TACK COAT	GAL	CENTER LINE (DOUBLE SOLID)	MILE	
US-36	506+00.00	511+00.00	1	38	2,123		88		159				
US-36	506+00.00	511+00.00									0.09		PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,123		88		159		0.09		

CALCULATED
CHECKED

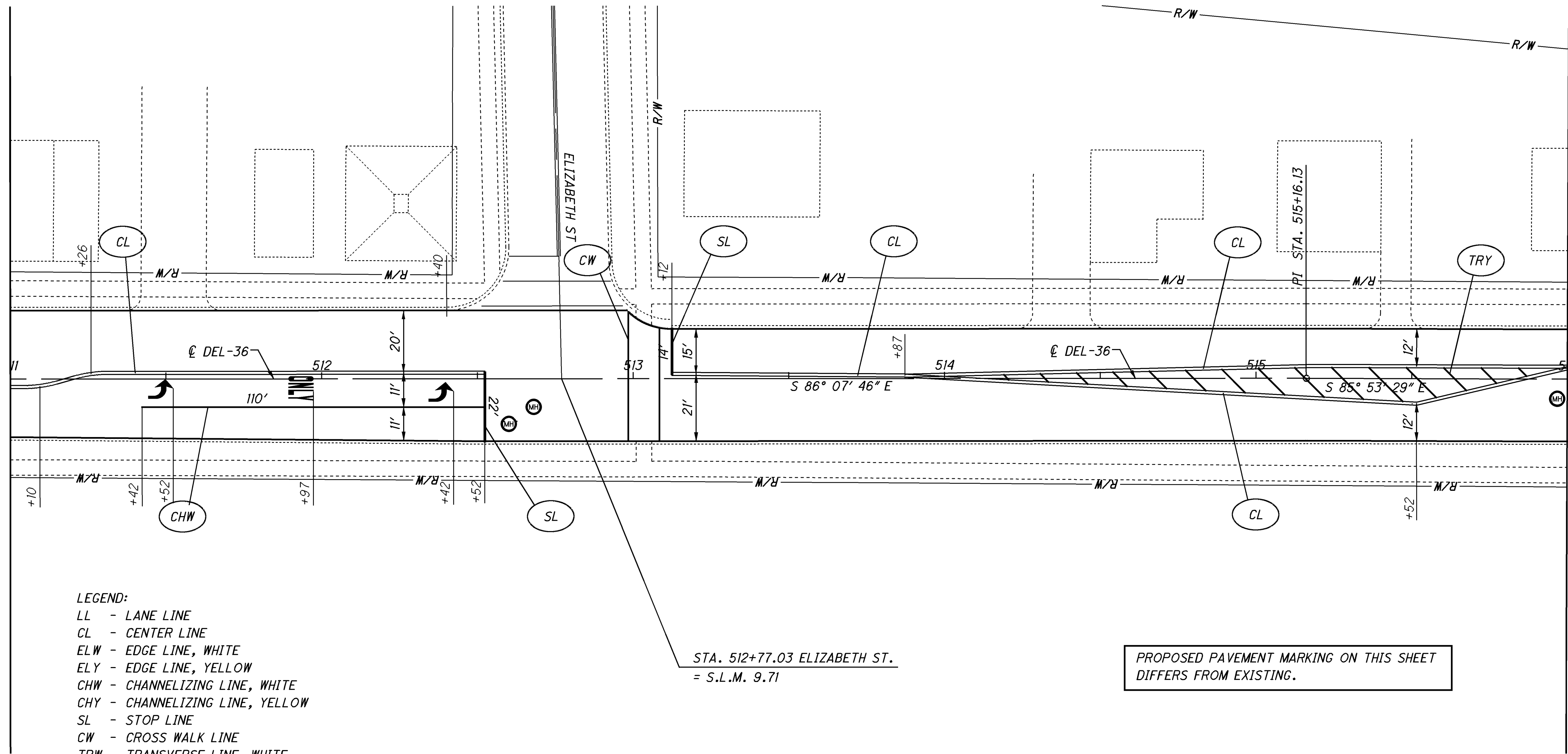
HORIZONTAL SCALE IN FEET

PAVEMENT PLAN DEL-36
STA 506+00 TO STA 511+00

DEL-36-7.28
DEL-521-1.76

53
93

MATCHLINE STA 511+00
SEE SHEET 53.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

STA. 512+77.03 ELIZABETH ST.
= S.L.M. 9.71

PROPOSED PAVEMENT MARKING ON THIS SHEET
DIFFERS FROM EXISTING.

MATCHLINE STA 516+00
SEE SHEET 55.



CALCULATED
CHECKED

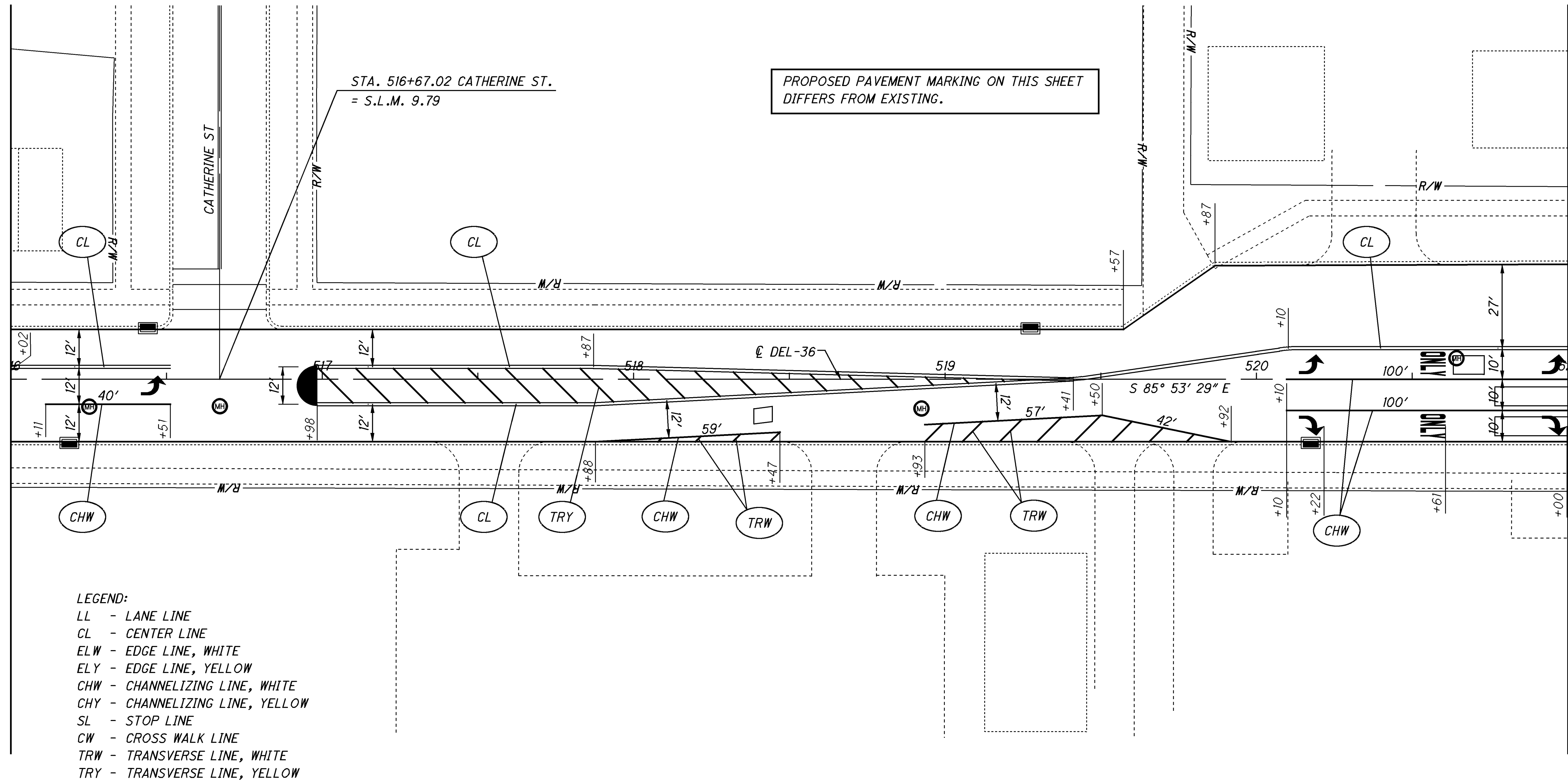
PAVEMENT PLAN DEL-36
STA 511+00 TO STA 516+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT												REMARKS
					SQ YD	CU YD													
US-36	511+00.00	513+12.00	1	41'	972	41	73												
US-36	513+12.00	516+00.00	1	36'	1,151	48	86												
US-36	511+00.00	516+00.00							0.14	110	37	78	133	2	1				PAVEMENT MARKING
TOTALS CARRIED TO 19/93 & 22/93					2,123	89	159		0.14	110	37	78	133	2	1				

DEL-36-7.28
DEL-521-1.76

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MATCHLINE STA 516+00
SEE SHEET 54.



MATCHLINE STA 521+00
SEE SHEET 56.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

PROPOSED PAVEMENT MARKING ON THIS SHEET
DIFFERS FROM EXISTING.



CALCULATED

CHECKED

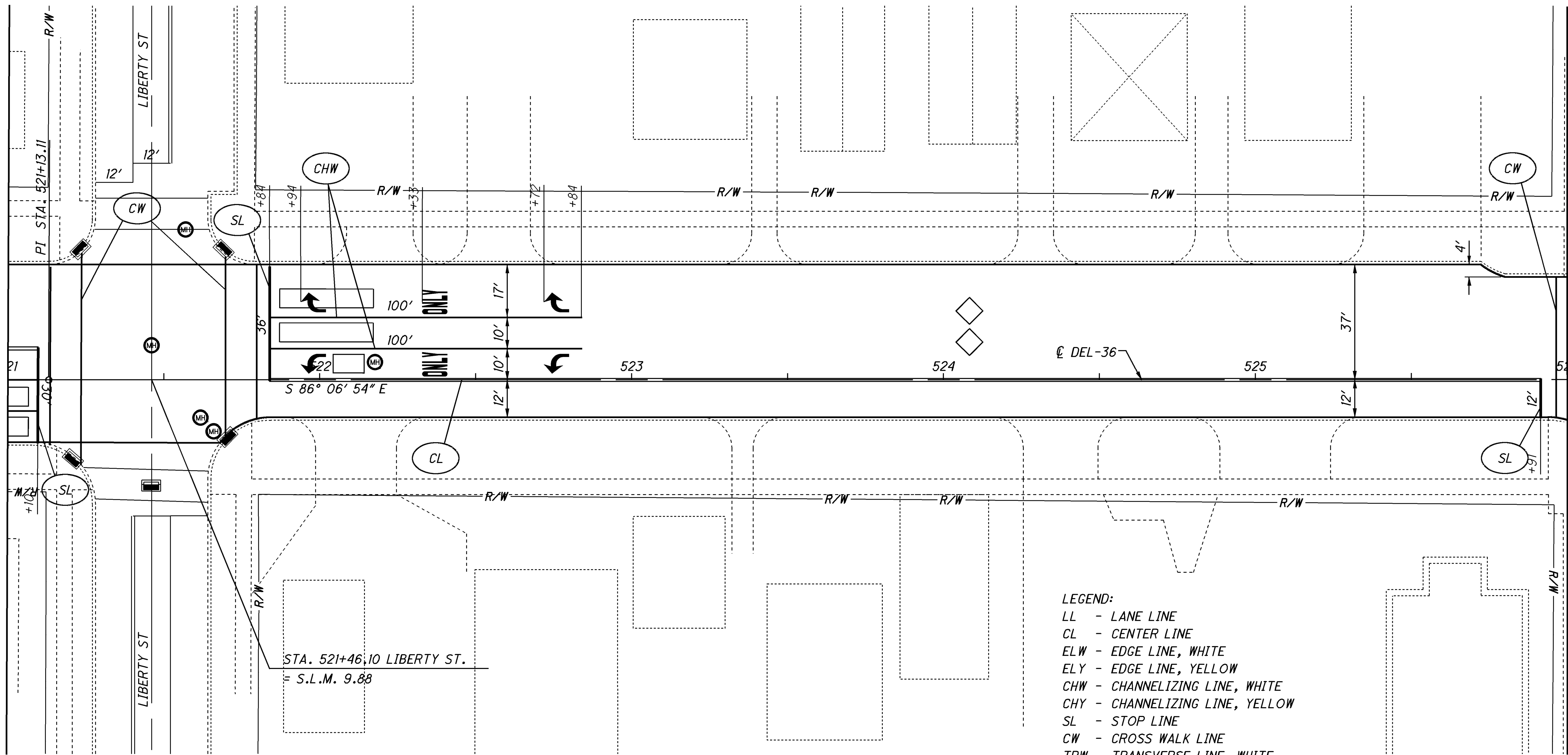
PAVEMENT PLAN DEL-36
STA 516+00 TO STA 521+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	REMARKS
					SQ YD	CU YD		GAL	EACH								
US-36	516+00.00	519+57.00	1	36'	1,429	60	107	4	4								
US-36	519+57.00	519+87.00	1	45'	151	6	11										
US-36	519+87.00	521+00.00	1	57'	715	30	54										
US-36	516+00.00	521+00.00								0.14	398	82	207	3	2	2	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					2,295	96	172	4	4	0.14	398	82	207	3	2	2	

DEL-36-7.28
DEL-521-1.76

55
93

MATCHLINE STA 521+00
SEE SHEET 55.



MATCHLINE STA 526+00
SEE SHEET 57.

LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, "T", "ONLY"	REMARKS
					SQ YD	CU YD		GAL	EACH								
US-36	521+00.00	521+84.00	1	56'	523	22	39	5	5								
US-36	521+84.00	526+00.00	1	49'	2,254	94	169										
US-36	521+00.00	526+00.00								0.09	200	78	277	2	2	2	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					2,777	116	208	5	5	0.09	200	78	277	2	2	2	

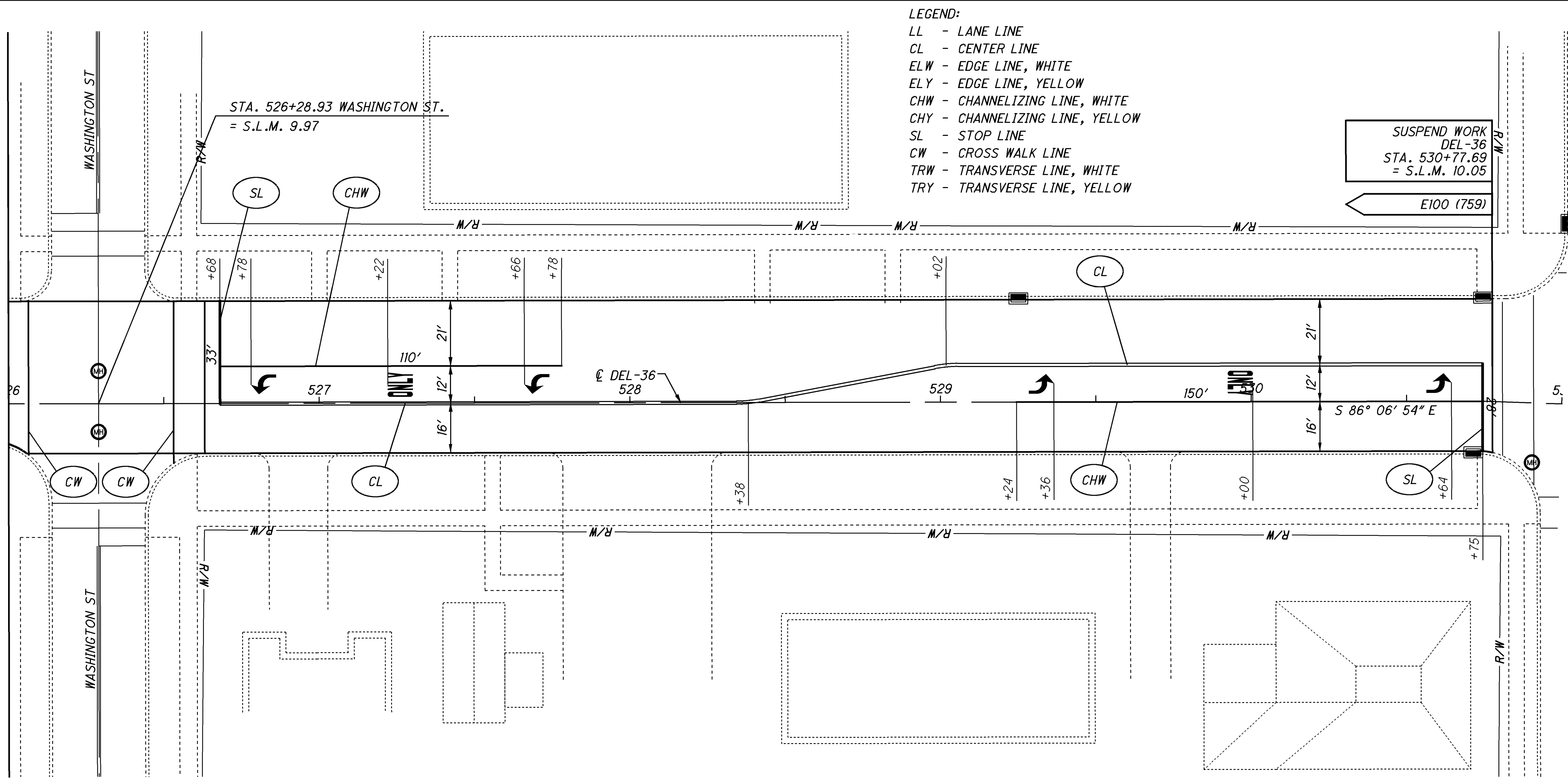
DEL-36-7.28
DEL-521-1.76

CALCULATED
CHECKED

0 20 40
HORIZONTAL SCALE IN FEET

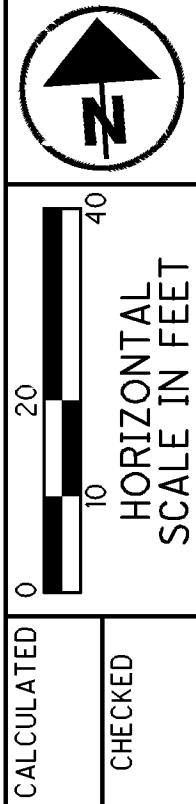
56
93

MATCHLINE STA 526+00
SEE SHEET 56.



- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

SUSPEND WORK
 DEL-36
 STA. 530+77.69
 = S.L.M. 10.05



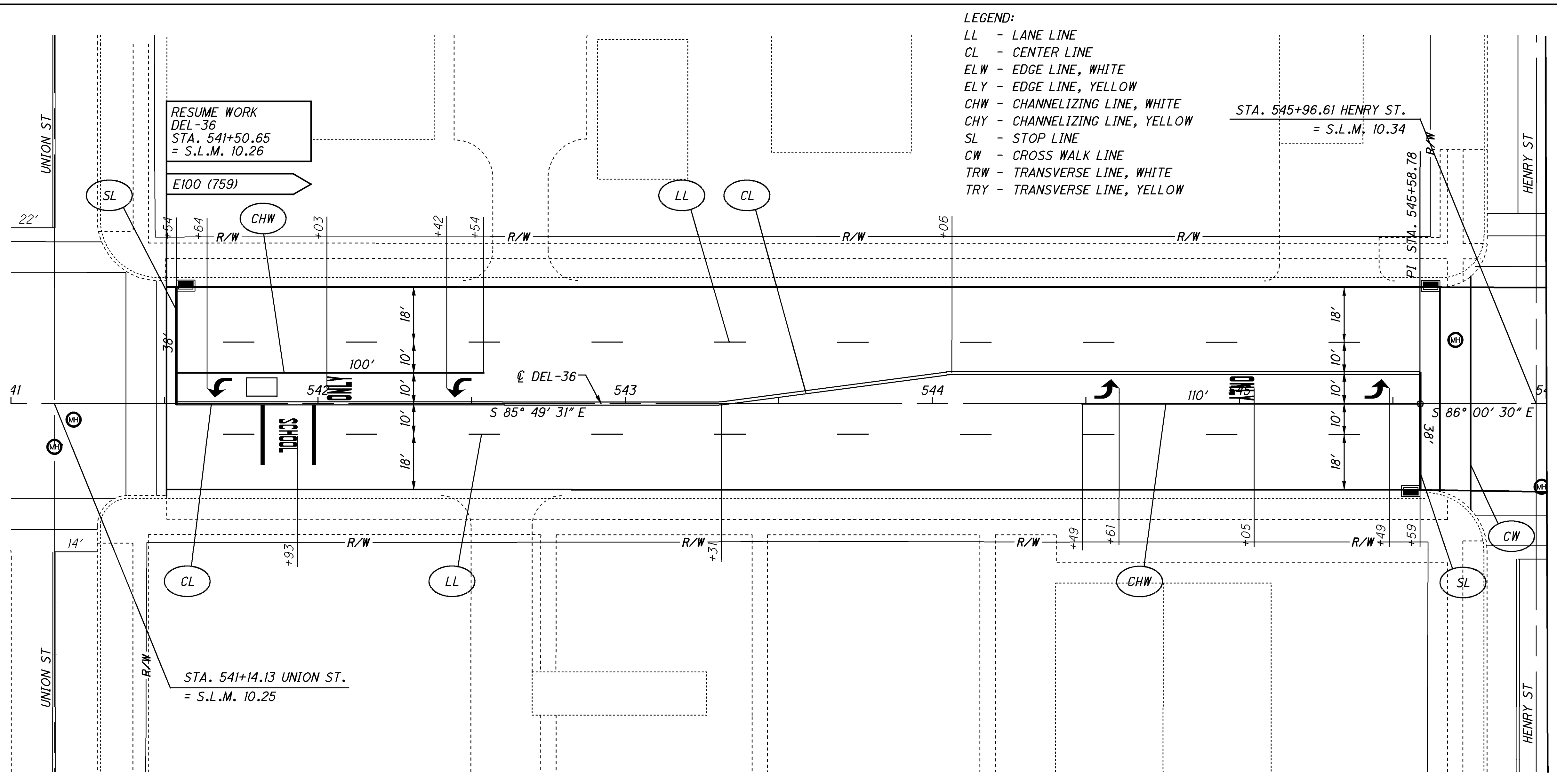
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PAVEMENT PLAN DEL-36
 STA 526+00 TO STA 530+77.69

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)			PAVEMENT MARKING			REMARKS								
					SQ YD	CU YD	GAL	MILE	FT	FT		FT	EACH	EACH					
US-36	526+00.00	530+77.69	1	49'	2,614	109	196												SUSPEND WORK
US-36	526+00.00	530+77.69						0.09	260	61	152	4	2						PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					2,614	109	196	0.09	260	61	152	4	2						

DEL-36-7.28
 DEL-521-1.76

- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW



MATCHLINE STA 546+00
SEE SHEET 59.

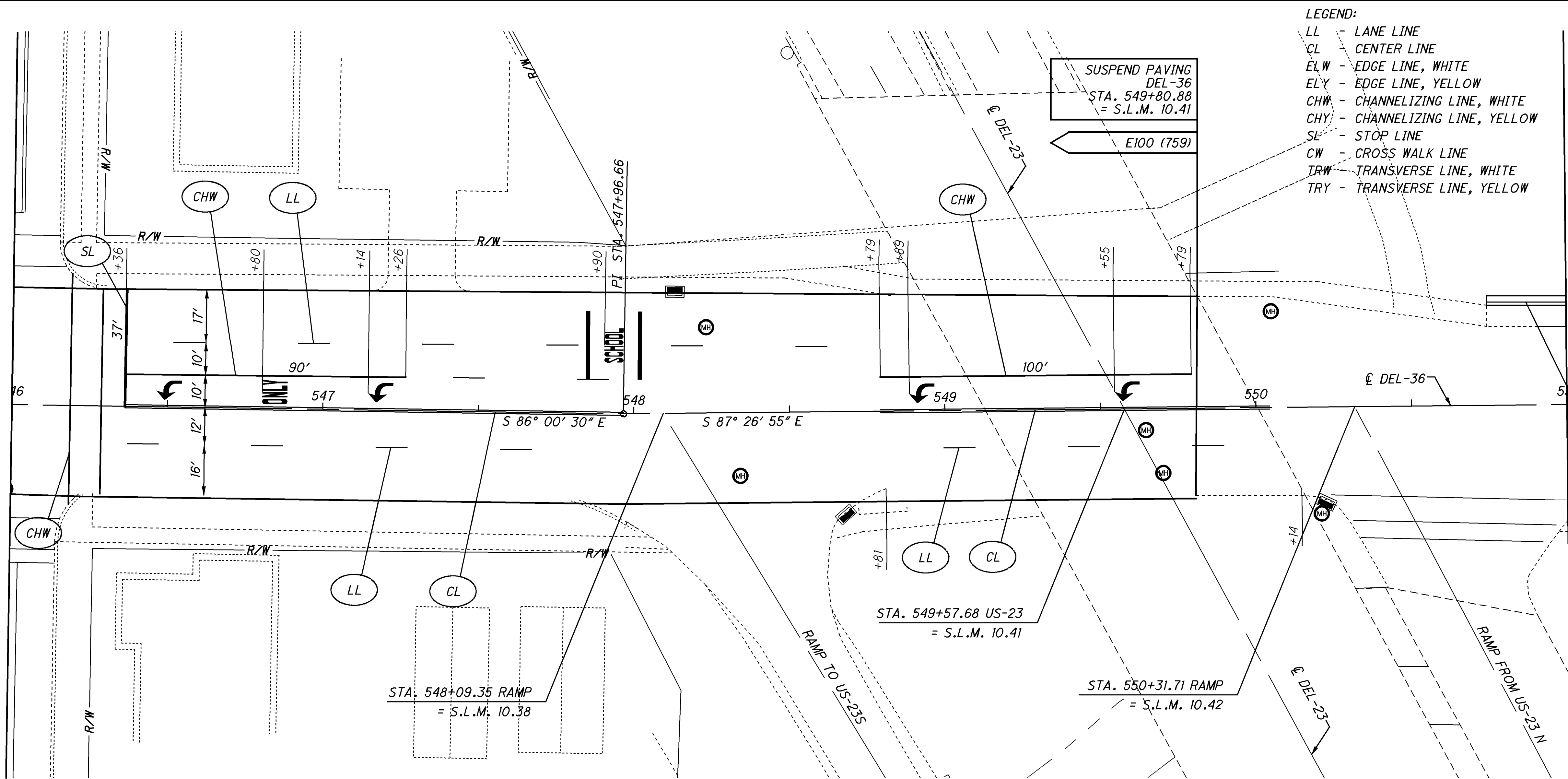
REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)		TRACKLESS TACK COAT		SCHOOL SYMBOL MARKING, 72"	LANE LINE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	LANE ARROW, LEFT	WORD ON PAVEMENT, 72", "ONLY"	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	REMARKS
					SQ YD	SQ YD	CU YD	CU YD	GAL	GAL											
US-36	541+50.65	545+58.78	2	66'	2,993		125		224		1								1	1	RESUME
US-36	541+50.65	545+58.78	2	66'		2,358		98		118											*INTERMEDIATE COURSE, SEE TYPICAL
US-36	545+58.78	546+00.00	1	66'	303		13		23												SUSPEND WORK
US-36	541+50.65	546+00.00										0.15	0.09	210	76	142	4	2			PAVEMENT MARKING
TOTALS CARRIED TO 21/93 & 24/93					3,296	2,358	138	98	247	118	1	0.15	0.09	210	76	142	4	2	1	1	

**PAVEMENT PLAN DEL-36
STA 541+50.65 TO STA 546+00**

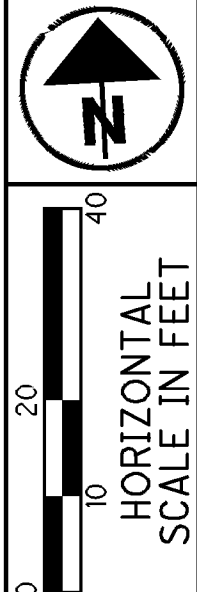
**DEL-36-7.28
DEL-521-1.76**

58
93

MATCHLINE STA 546+00
SEE SHEET



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW



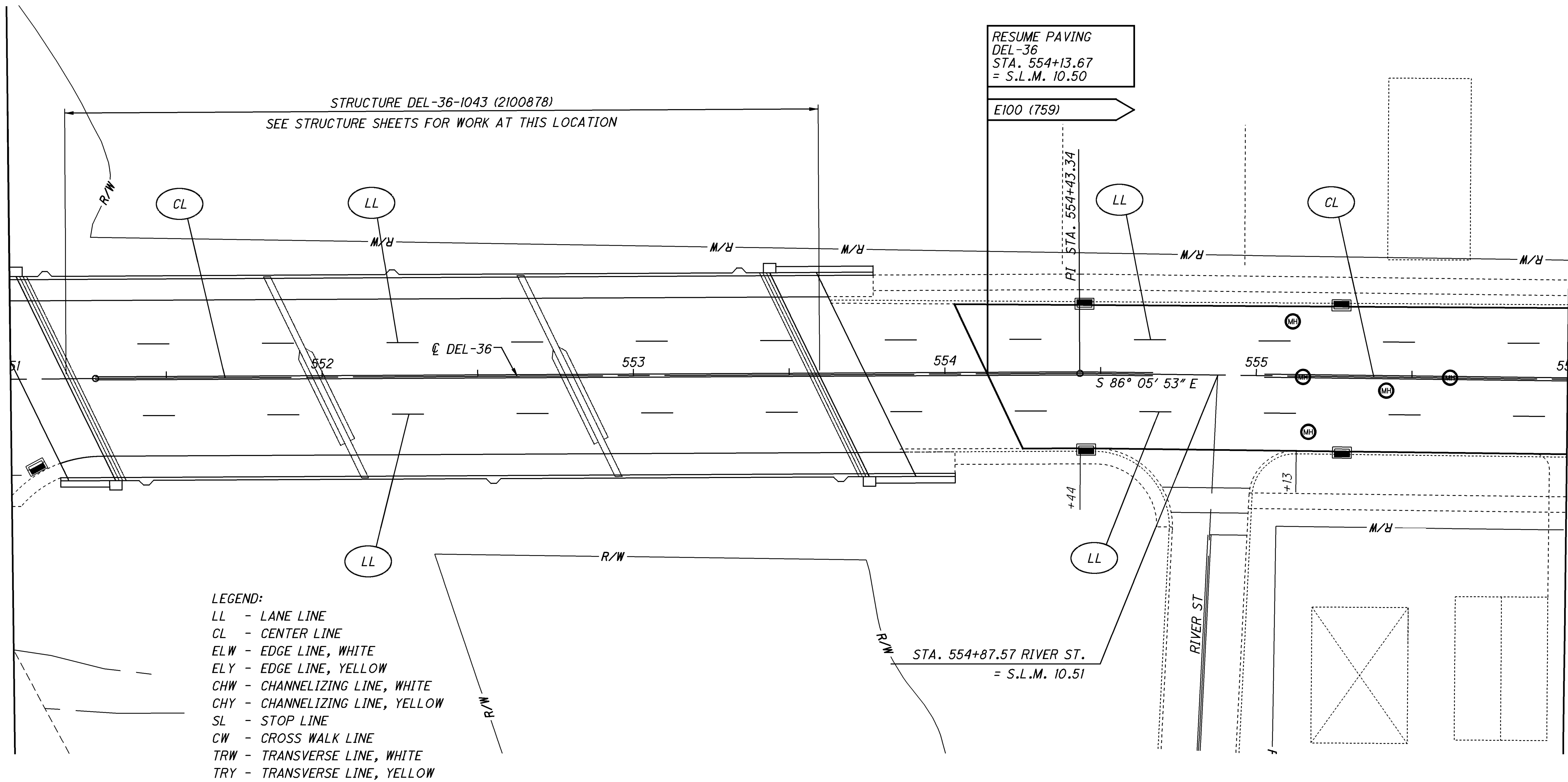
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PAVEMENT PLAN DEL-36
STA 546+00 TO STA 551+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)			PAVEMENT MARKING			REMARKS					
					SQ YD	CU YD	GAL	MILE	FT	FT		EACH	EACH	EACH		
US-36	546+00.00	549+80.88	1	67'	2,830	118	212	0.11	0.09	190	37	140	1	4	1	SUSPEND WORK
US-36	549+80.88	551+00.00	1	67'	887	37	67									SKIP OVER CONCRETE SECTION
US-36	546+00.00	551+00.00														PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					3,717	155	279	0.11	0.09	190	37	140	1	4	1	

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 551+00
SEE SHEET 59.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

RESUME PAVING
DEL-36
STA. 554+13.67
= S.L.M. 10.50

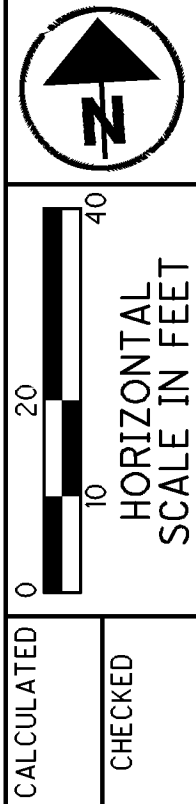
E100 (759)

PI STA. 554+43.34

STA. 554+87.57 RIVER ST.
= S.L.M. 10.51

RIVER ST

MATCHLINE STA 556+00
SEE SHEET 61.



CALCULATED
CHECKED

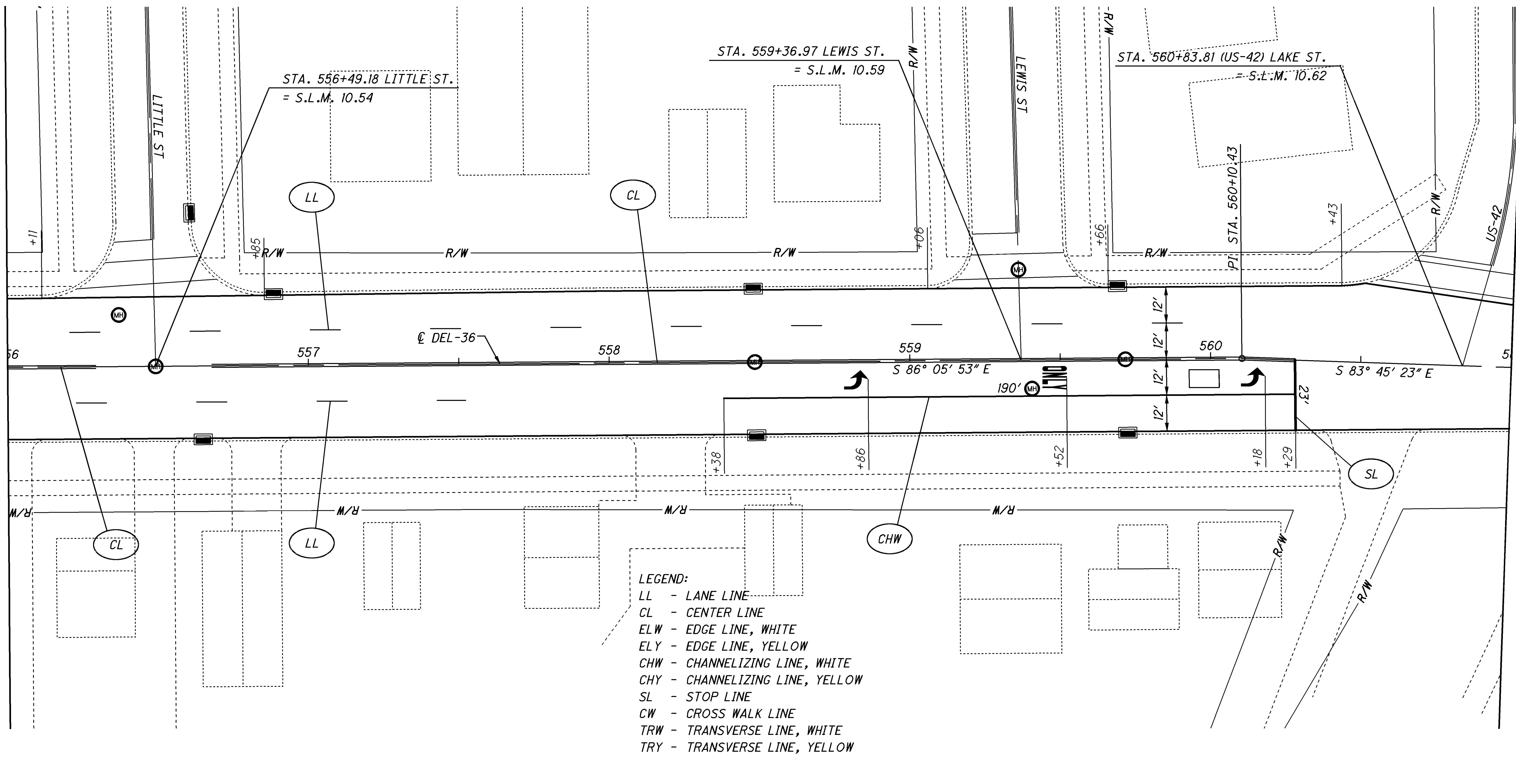
PAVEMENT PLAN DEL-36
STA 551+00 TO STA 556+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING			MARKING					REMARKS
				PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	LANE LINE	CENTER LINE (DOUBLE SOLID)	LANE LINE	CENTER LINE (DOUBLE SOLID)	STOP LINE	
				SQ YD	CU YD	GAL	MILE	MILE	MILE	MILE	FT	
US-36	551+00.00	554+13.67										SUSPEND WORK
US-36	554+13.67	556+00.00	1 46'	959	40	72						
US-36	551+00.00	556+00.00					0.19	0.09	0.08	0.08	25	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93				959	40	72	0.19	0.09	0.08	0.08	25	

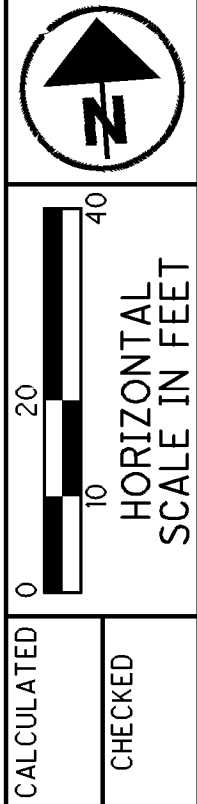
DEL-36-7.28
DEL-521-1.76

60
93

MATCHLINE STA 556+00
SEE SHEET 60.



MATCHLINE STA 561+00
SEE SHEET 62.

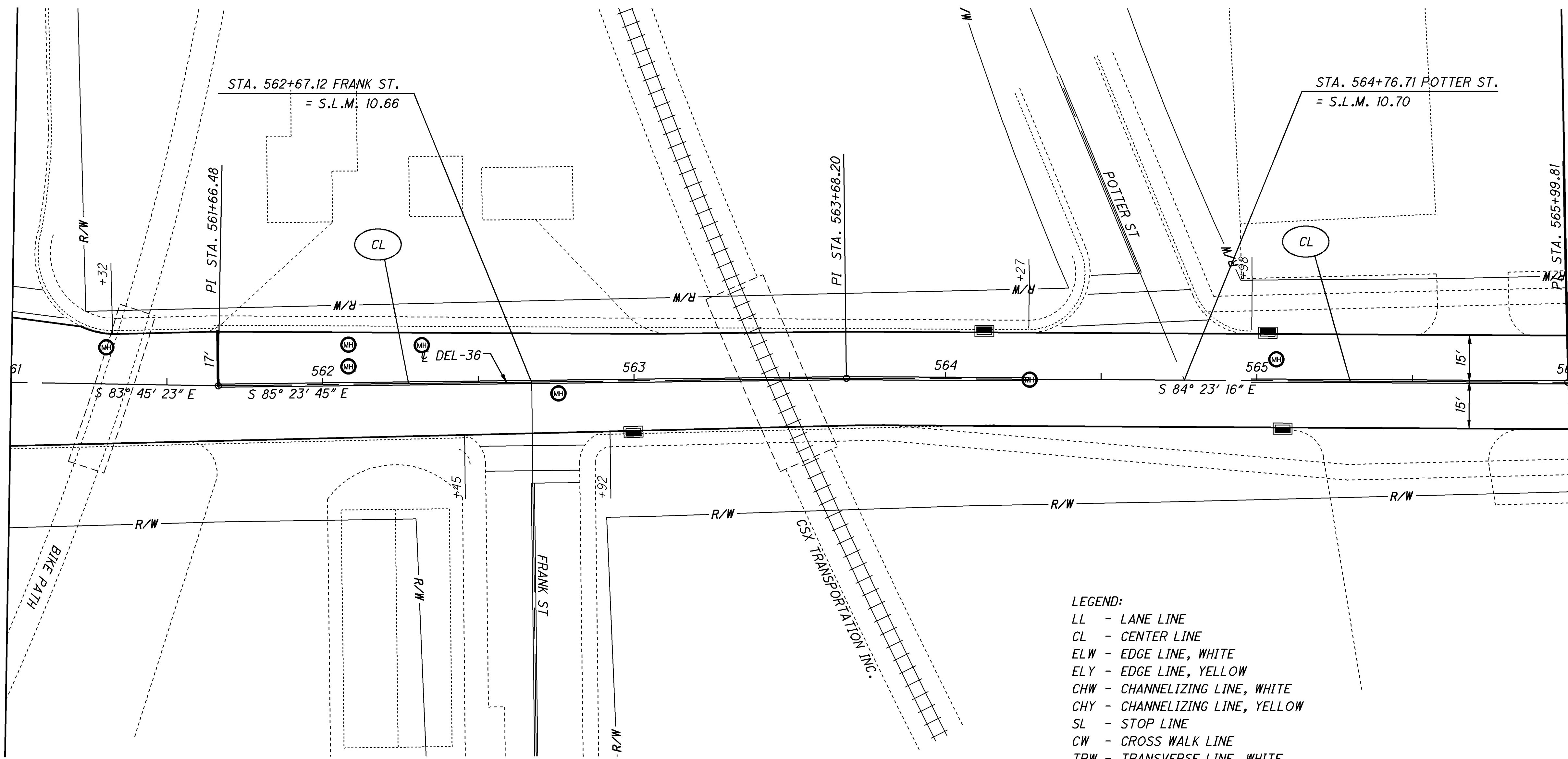


**PAVEMENT PLAN DEL-36
STA 556+00 TO STA 561+00**

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		LOOP DETECTOR TIE IN	LANE LINE		CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	STOP LINE	LANE ARROW, LEFT	WORD ON PAVEMENT, 12", "ONLY"	REMARKS
					SQ YD	CU YD		GAL	EACH		EACH	MILE						
US-36	556+00.00	561+00.00	1	47'	2,638	110	198	1	1		0.11	0.09	190	23	2	1		
US-36	556+00.00	561+00.00																PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					2,638	110	198	1	1		0.11	0.09	190	23	2	1		

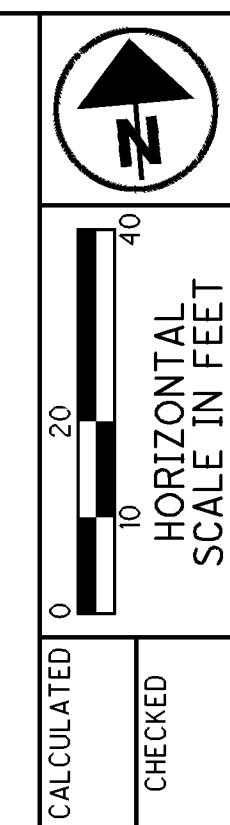
**DEL-36-7.28
DEL-521-1.76**

MATCHLINE STA 561+00
SEE SHEET 61.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 566+00
SEE SHEET 63.

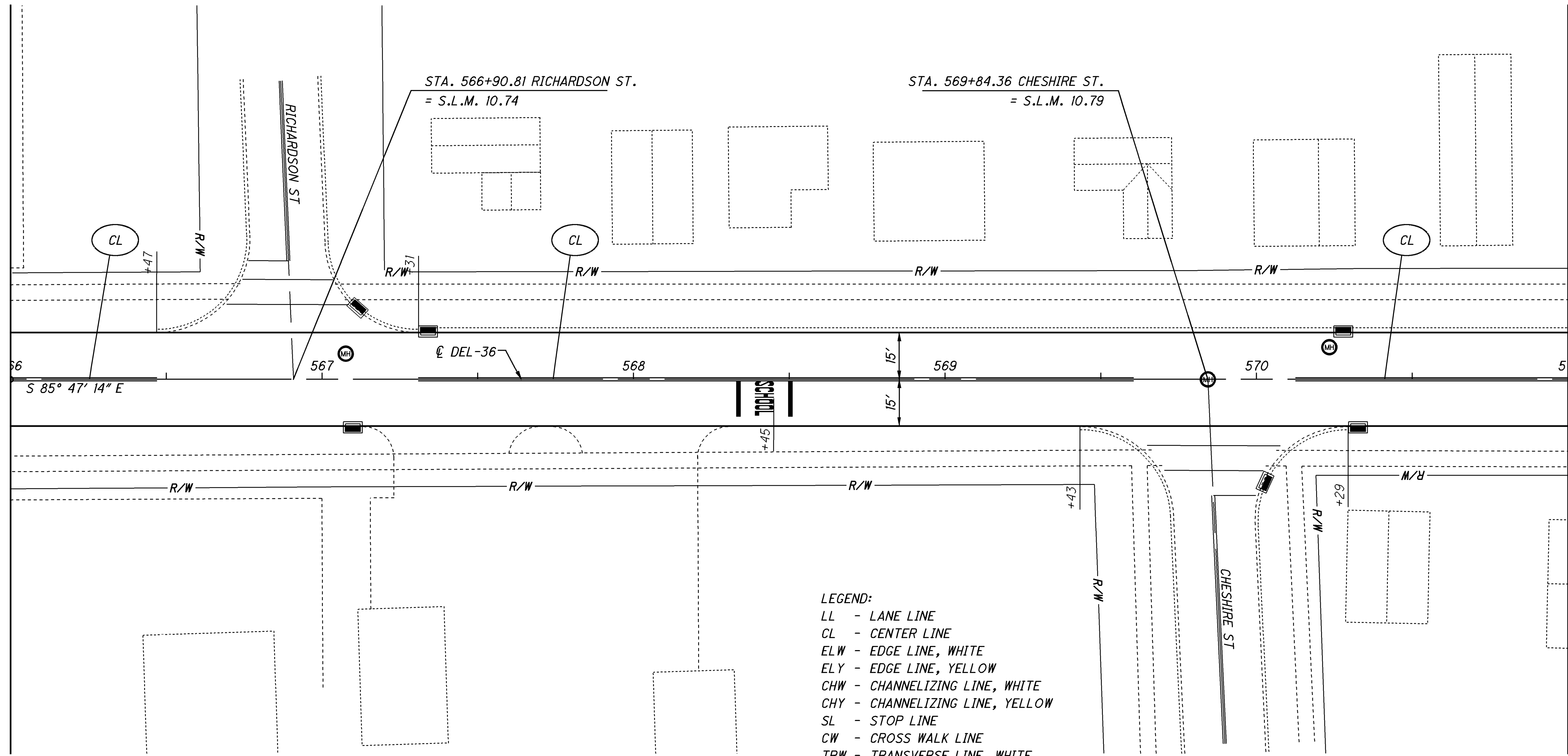


PAVEMENT PLAN DEL-36
STA 561+00 TO STA 566+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING			MARKING		REMARKS
				PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	CENTER LINE (DOUBLE SOLID)	STOP LINE	
				SQ YD	CU YD	GAL	MILE	FT	
US-36	561+00.00	566+00.00	1 32'	1,766	74	132			
US-36	561+00.00	566+00.00					0.09	17	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93				1,766	74	132	0.09	17	

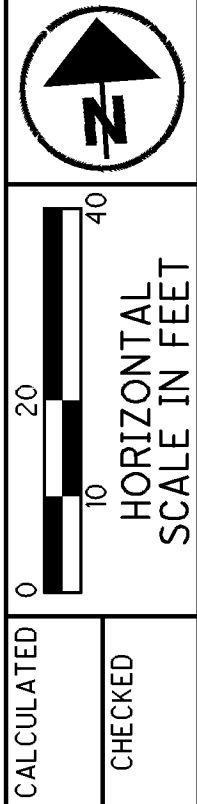
DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 566+00
SEE SHEET 62.



MATCHLINE STA 571+00
SEE SHEET 64.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW



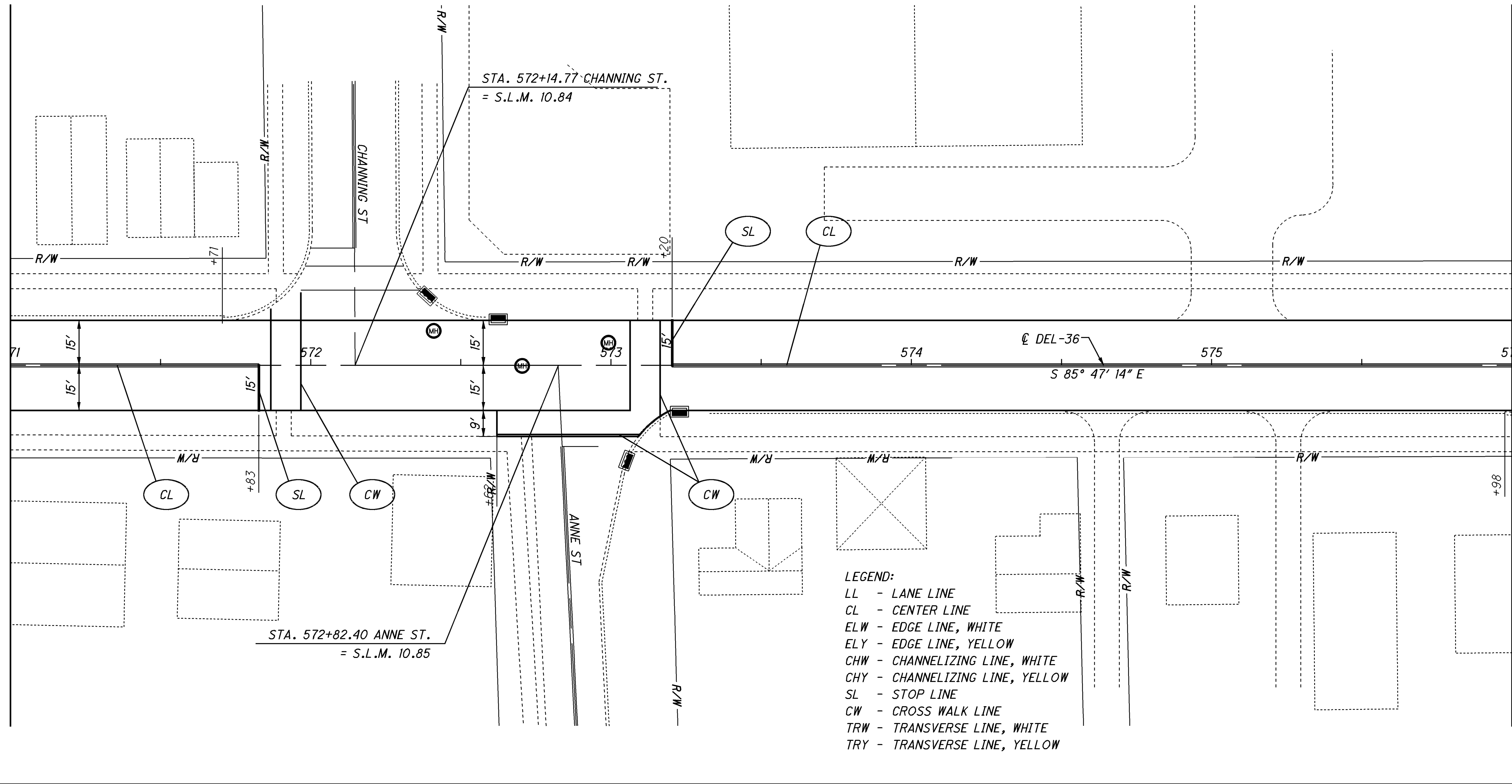
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PAVEMENT PLAN DEL-36
STA 566+00 TO STA 571+00

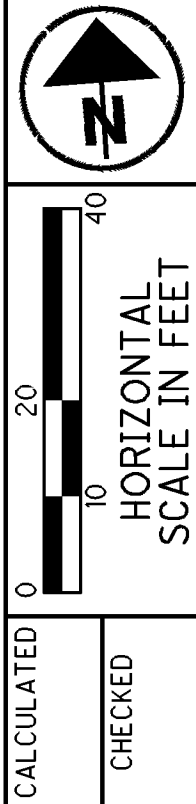
REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)			ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)			TRACKLESS TACK COAT			CENTER LINE (DOUBLE SOLID)		SCHOOL SYMBOL MARKING, 72"		REMARKS
					SQ YD	CU YD							MILE	EACH				
US-36	566+00.00	571+00.00	1	30'	1,667	69									0.09	1		
US-36	566+00.00	571+00.00													0.09	1		PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					1,667	69									0.09	1		

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 571+00
SEE SHEET 63.



MATCHLINE STA 576+00
SEE SHEET 65.

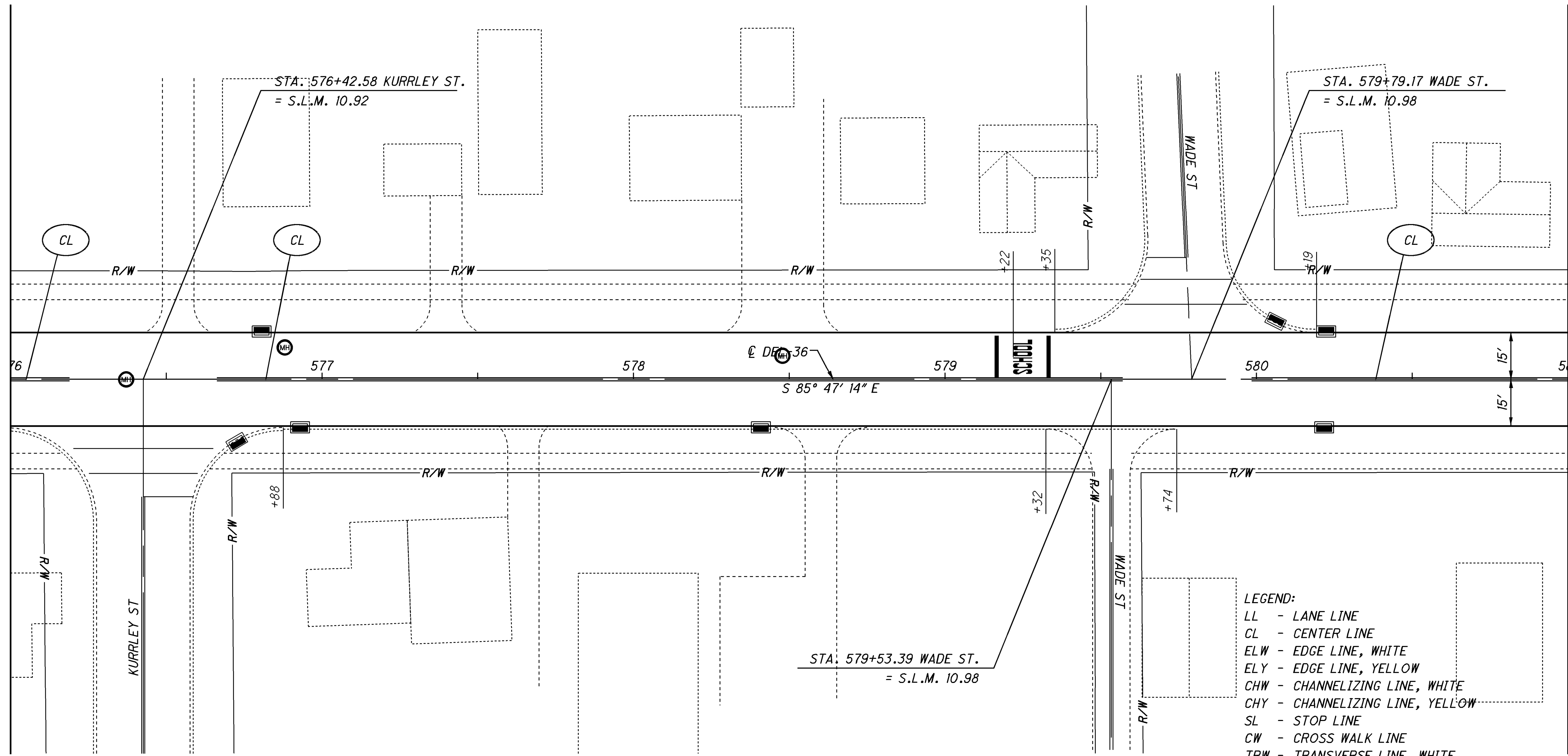


PAVEMENT PLAN DEL-36
STA 571+00 TO STA 576+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)			ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)			TRACKLESS TACK COAT			CENTER LINE (DOUBLE SOLID)			STOP LINE			CROSSWALK LINE			REMARKS
					SQ YD	CU YD		SQ YD	CU YD		MILE	FT	FT										
US-36	571+00.00	576+00.00	1	31'	1,716	72							0.09	30	227								
US-36	571+00.00	576+00.00																					PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					1,716	72							0.09	30	227								

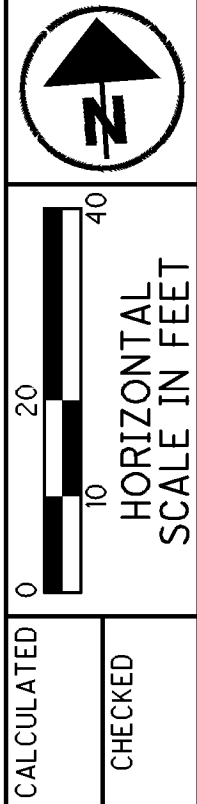
DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 576+00
SEE SHEET 64.



MATCHLINE STA 581+00
SEE SHEET 66.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

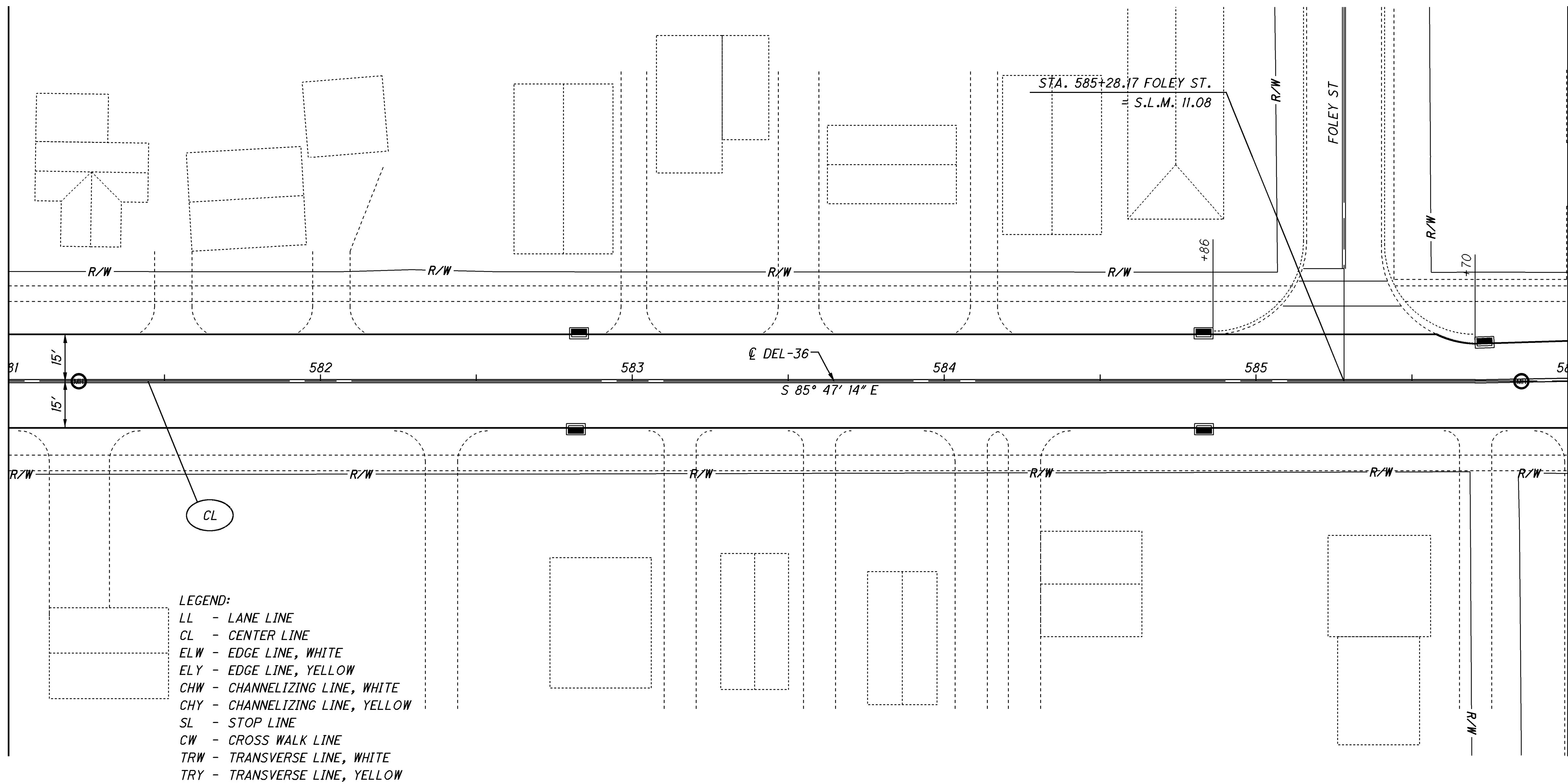


REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)			PAVEMENT MARKING			REMARKS
					254	442	690	644	644		
					SQ YD	CU YD	GAL	MILE	EACH		
US-36	576+00.00	581+00.00	1	30'	1,667	69	125				
US-36	576+00.00	581+00.00						0.09	1	PAVEMENT MARKING	
TOTALS CARRIED TO 20/93 & 23/93					1,667	69	125	0.09	1		

PAVEMENT PLAN DEL-36
STA 576+00 TO STA 581+00

DEL-36-7.28
DEL-521-1.76

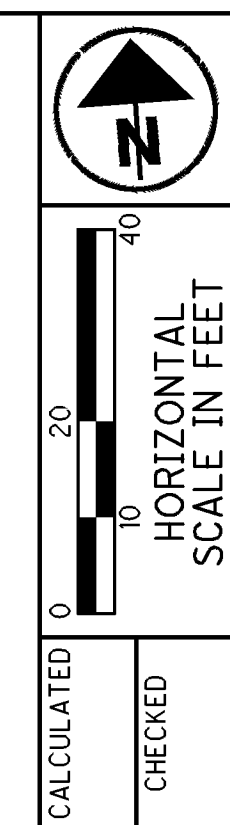
MATCHLINE STA 581+00
SEE SHEET 65.



MATCHLINE STA 586+00
SEE SHEET 67.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT												REMARKS
					SQ YD	CU YD													
US-36	581+00.00	586+00.00	1	30'	1,656	69	124												
US-36	581+00.00	586+00.00																	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					1,656	69	124												



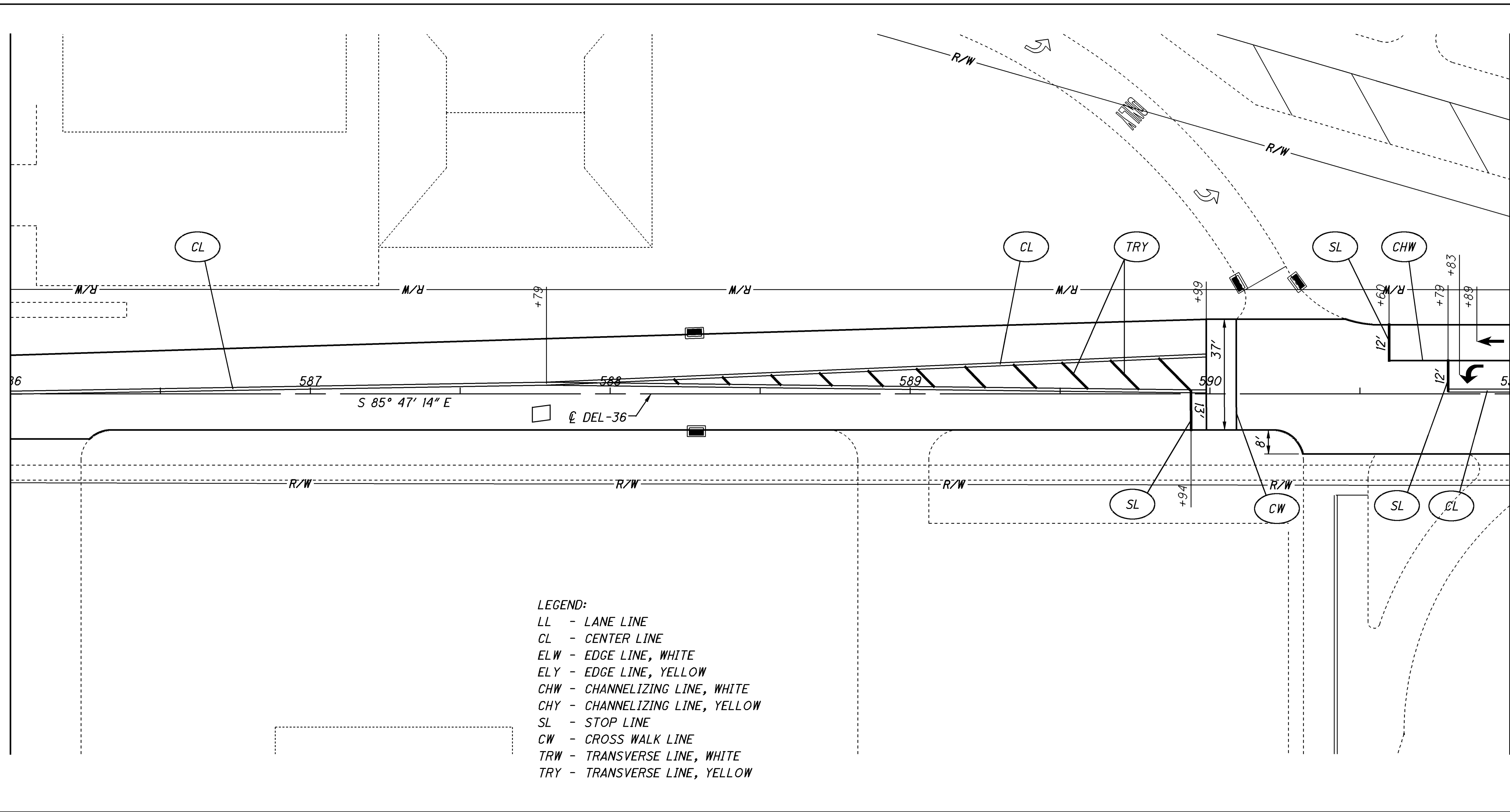
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PAVEMENT PLAN DEL-36
STA 581+00 TO STA 586+00

DEL-36-7.28
DEL-521-1.76

66
93

MATCHLINE STA 586+00
SEE SHEET 66.



MATCHLINE STA 591+00
SEE SHEET 68.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

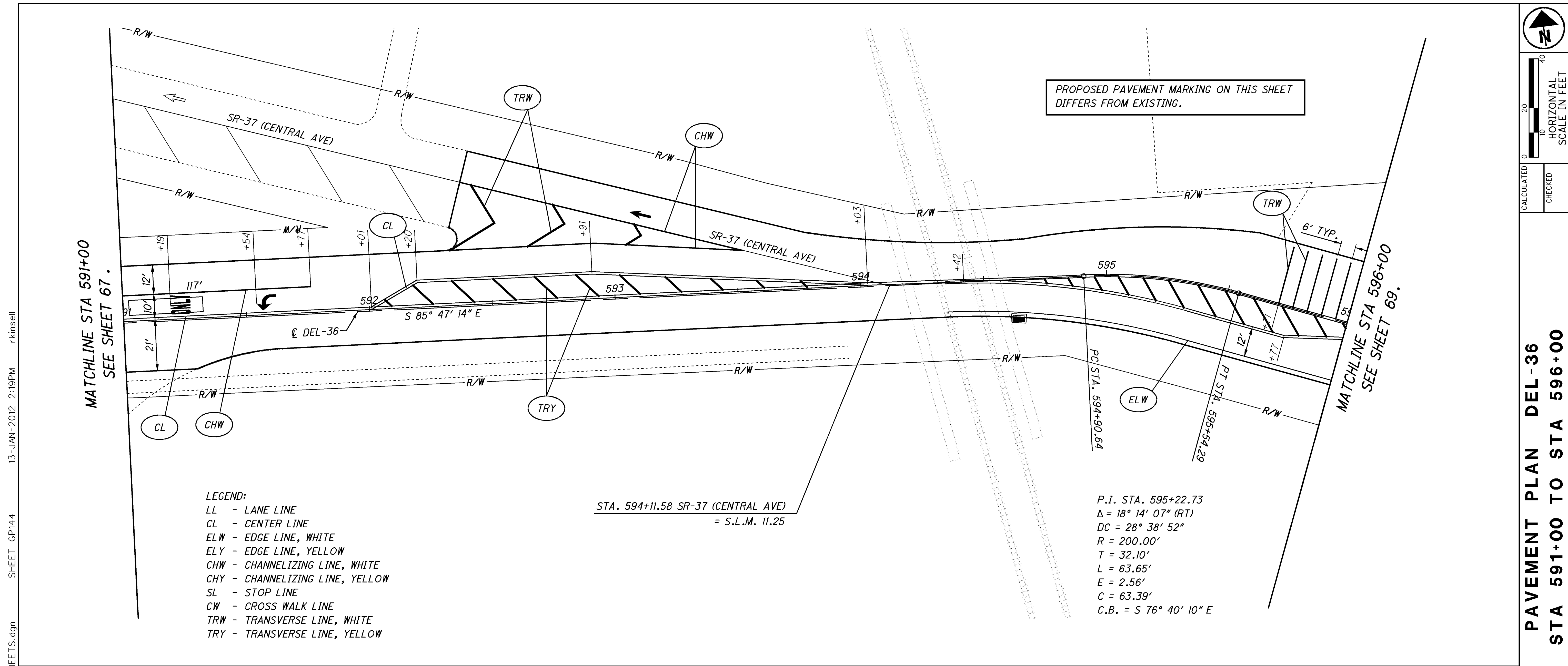
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CHECKED

HORIZONTAL SCALE IN FEET

PAVEMENT PLAN DEL-36
STA 586+00 TO STA 591+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		LOOP DETECTOR TIE IN	CENTER LINE (DOUBLE SOLID)	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, THROUGH	REMARKS
					SQ YD	CU YD		GAL	EACH								
US-36	586+00.00	591+00.00	1	33'	1,854	77	139	1	1								
US-36	586+00.00	591+00.00									0.17	25	62	90	1	1	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					1,854	77	139	1	1		0.17	25	62	90	1	1	

DEL-36-7.28
DEL-521-1.76



PAVEMENT PLAN DEL-36
 STA 591+00 TO STA 596+00

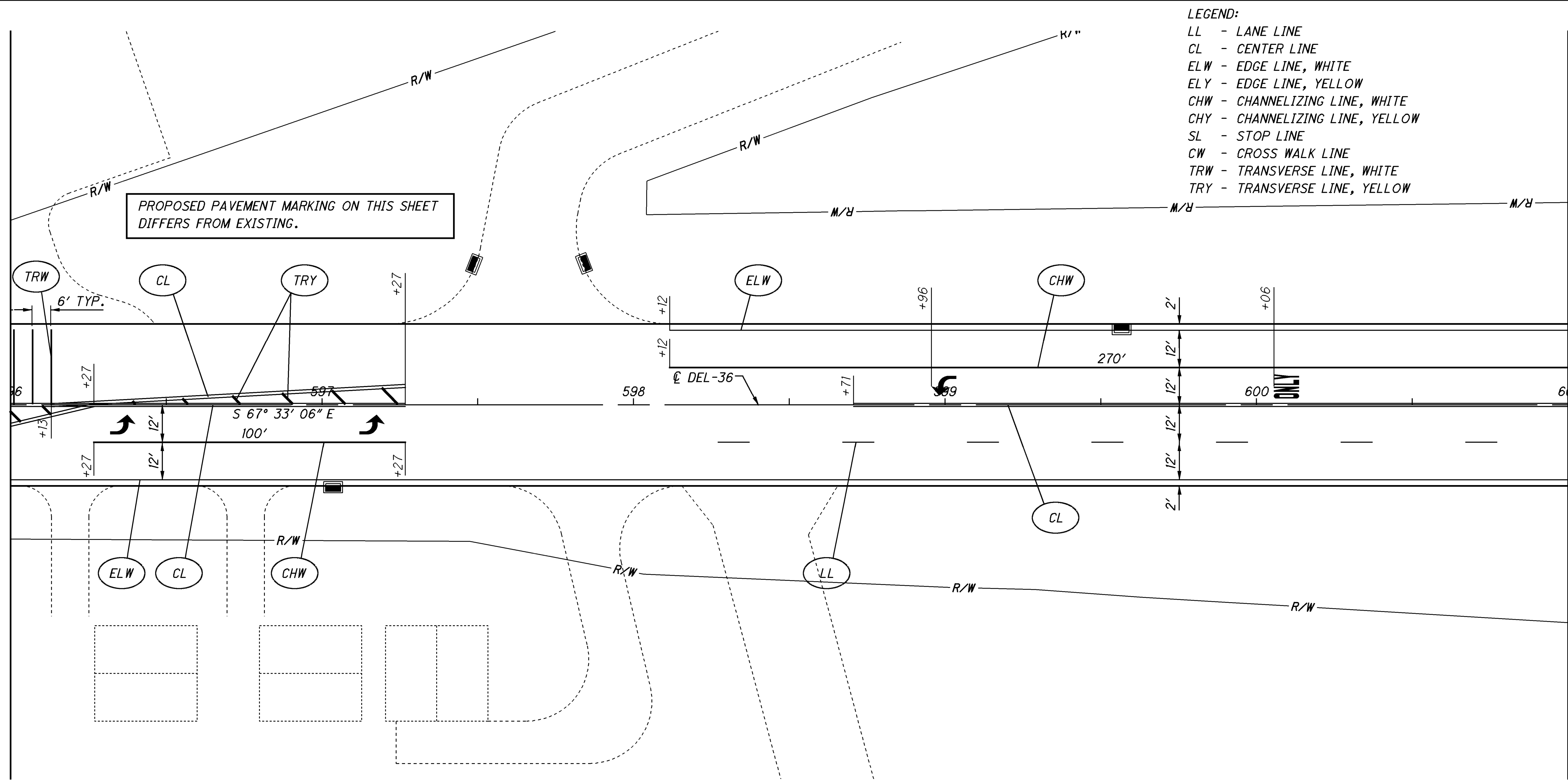
REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)		TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN		CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	LANE ARROW, LEFT	LANE ARROW, THROUGH	WORD ON PAVEMENT, 72", "ONLY"	REMARKS
					SQ YD	CU YD		GAL	EACH								
US-36	591+00.00	596+00.00	1	45'	2,475	103	186	1	1								
US-36	591+00.00	596+00.00								0.16	356	196	214	1	1	1	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					2,475	103	186	1	1	0.16	356	196	214	1	1	1	

DEL-36-7.28
 DEL-521-1.76

68
93

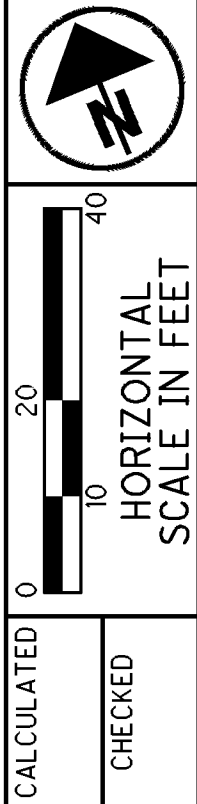
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MATCHLINE STA 596+00
SEE SHEET 68.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 601+00
SEE SHEET 70.

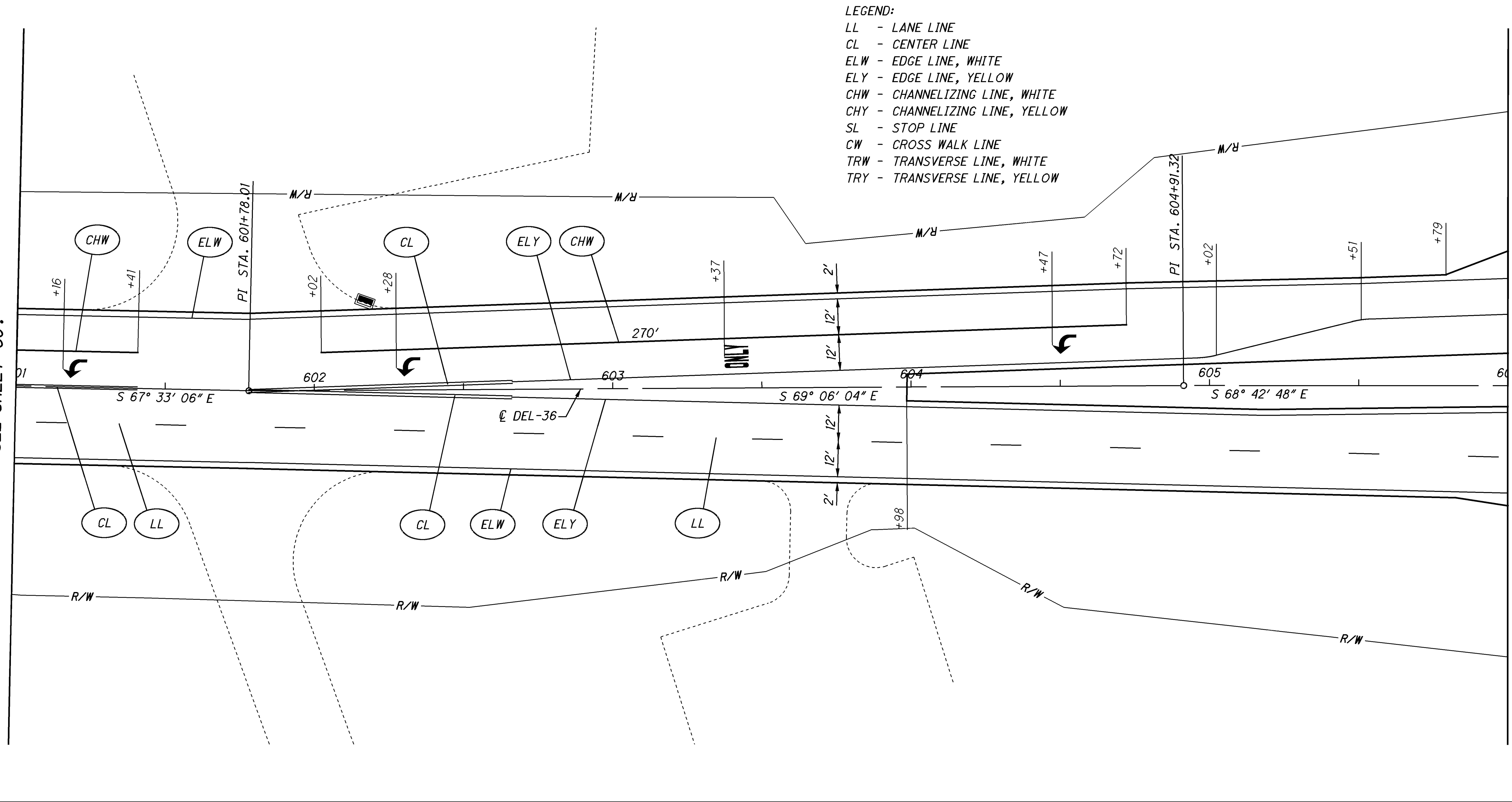


PAVEMENT PLAN DEL-36
STA 596+00 TO STA 601+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)			PAVEMENT PLANNING, ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)			TRACKLESS TACK COAT			PAVEMENT MARKING			REMARKS					
					SQ YD	CU YD		SQ YD	CU YD		MILE	MILE	MILE	FT	FT	FT		EACH	EACH			
US-36	596+00.00	601+00.00	1	52'	2,889	120		2,889	120		217											
US-36	596+00.00	601+00.00											0.15	0.05	0.09	370	70	31	3	1	PAVEMENT MARKING	
TOTALS CARRIED TO 20/93 & 23/93					2,889	120		2,889	120		217			0.15	0.05	0.09	370	70	31	3	1	

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 601+00
SEE SHEET 69.



- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

CALCULATED
 CHECKED

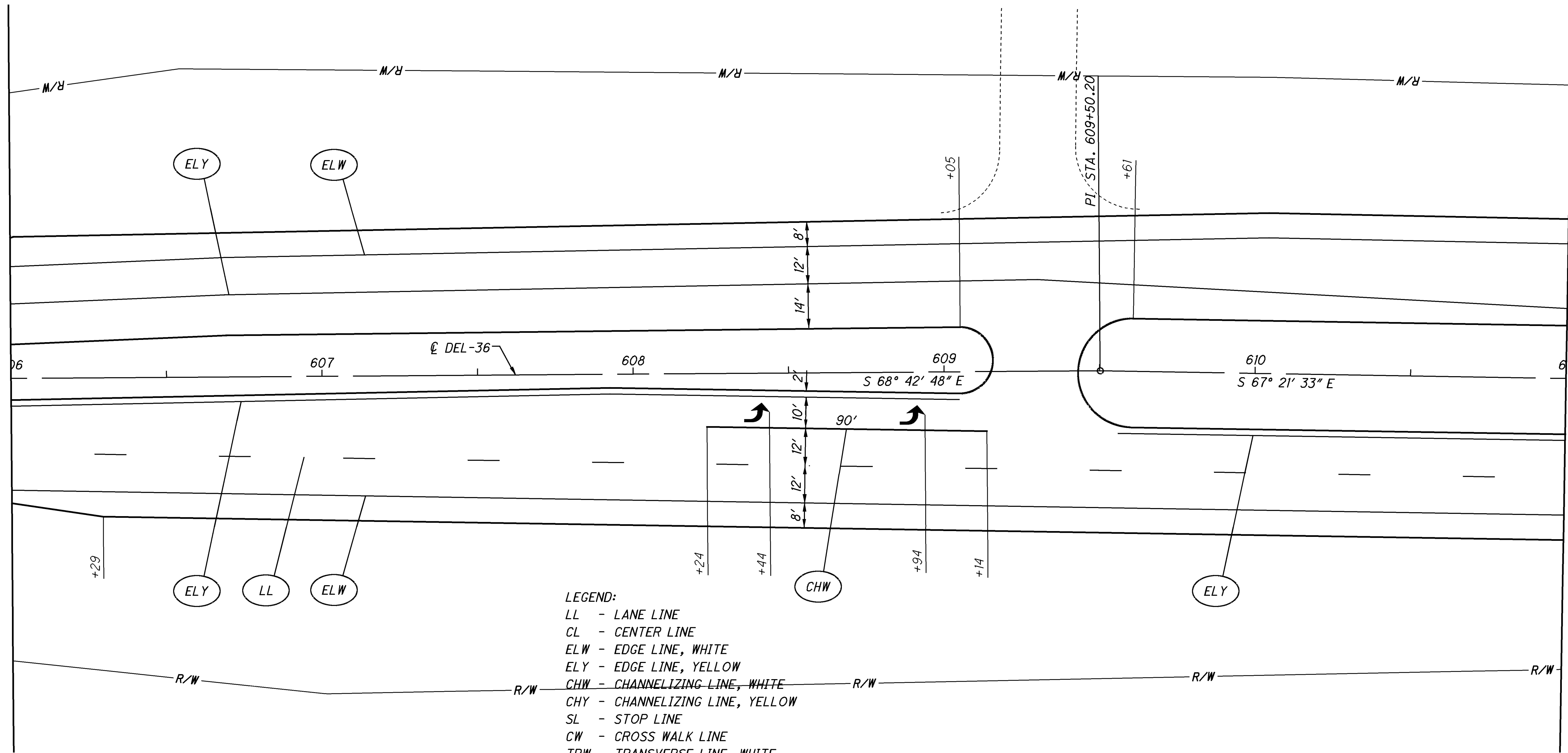
0 20 40
 HORIZONTAL
 SCALE IN FEET

PAVEMENT PLAN DEL-36
 STA 601+00 TO STA 606+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT MATERIALS				MARKINGS							REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE	LANE ARROW, LEFT	WORD ON PAVEMENT, "ONLY"	
					SQ YD	CU YD	CU YD	GAL	MILE	MILE	MILE	MILE	FT	EACH	EACH	
US-36	601+00.00	603+98.00	1	57'	1,884	79		141								
US-36	603+98.00	606+00.00	3	56'	1,256	52	7	94								
US-36	601+00.00	606+00.00							0.19	0.13	0.09	0.04	270	3	1	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					3,140	131	7	235	0.19	0.13	0.09	0.04	270	3	1	

DEL-36-7.28
 DEL-521-1.76

MATCHLINE STA 606+00
SEE SHEET 70.



LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 611+00
SEE SHEET 72.



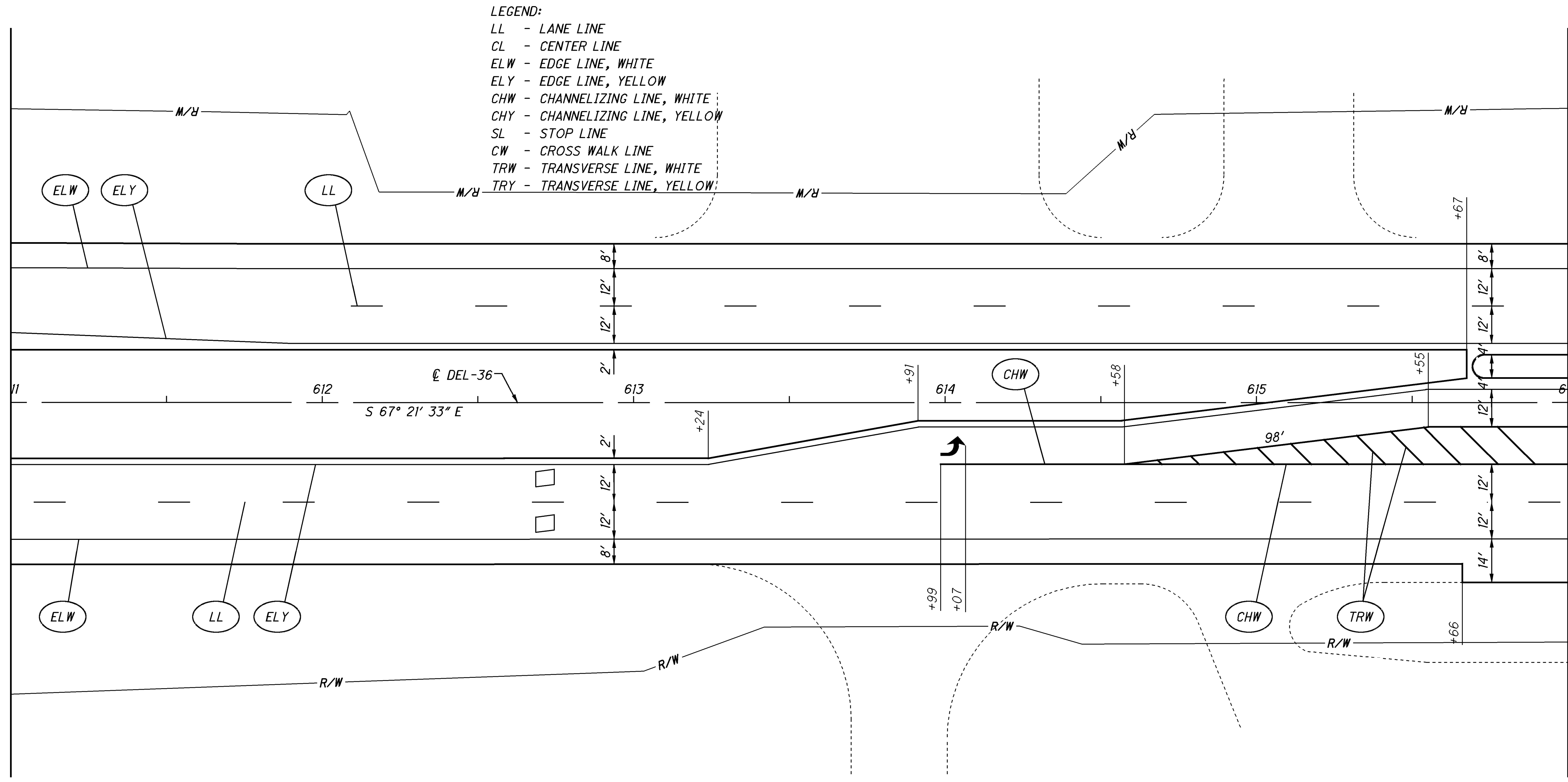
PAVEMENT PLAN DEL-36
 STA 606+00 TO STA 611+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	617	690						REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CHANNELIZING LINE	LANE ARROW, LEFT	
					SQ YD	CU YD	CU YD	GAL	MILE	MILE	MILE	FT	EACH	
US-36	606+00.00	611+00.00	3	75'	4,167	174	19	313						
US-36	606+00.00	611+00.00							0.19	0.18	0.09	90	2	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					4,167	174	19	313	0.19	0.18	0.09	90	2	

DEL-36-7.28
 DEL-521-1.76

71
 93

MATCHLINE STA 611+00
SEE SHEET 71.



MATCHLINE STA 616+00
SEE SHEET 73.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

CALCULATED 0
CHECKED

0 20 40
HORIZONTAL SCALE IN FEET

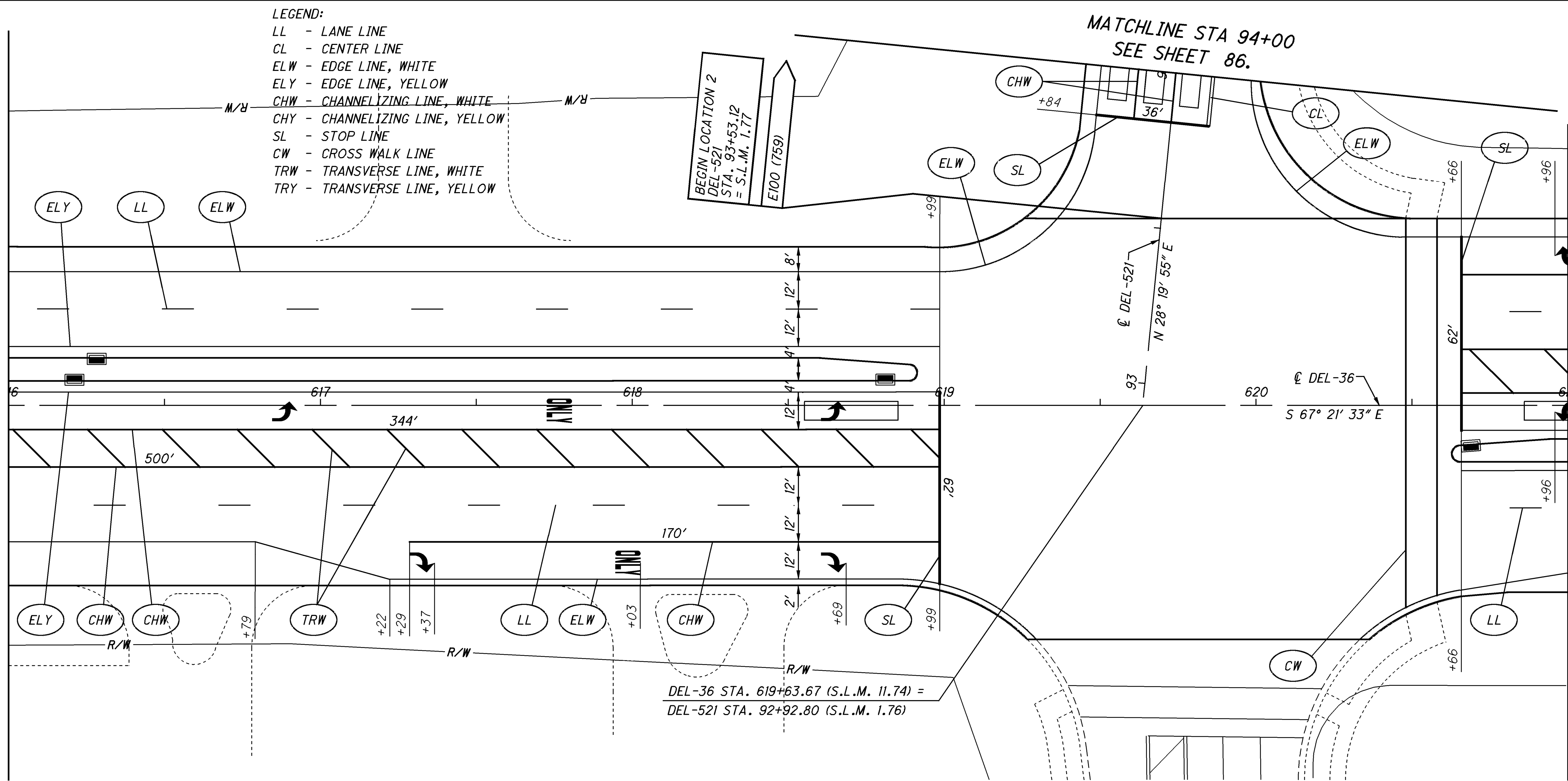
REF. NO.	BEGIN STATION	END STATION	TYPICAL		254	442	617	690	632	632	644	644	644	644	644	644	REMARKS
			AVG. PAVEMENT AND SHOULDER WIDTH														
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	MILE	FT	FT	EACH	
US-36	611+00.00	615+67.45	3	75'	3,893	162	17	292	2	2							
US-36	615+67.45	616+00.00	4	103'	374	16	1	28									
US-36	611+00.00	616+00.00									0.19	0.19	0.17	98	118	1	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					4,267	178	18	320	2	2	0.19	0.19	0.17	98	118	1	

PAVEMENT PLAN DEL-36
STA 611+00 TO STA 616+00

DEL-36-7.28
DEL-521-1.76

72
93

MATCHLINE STA 616+00
SEE SHEET 72.

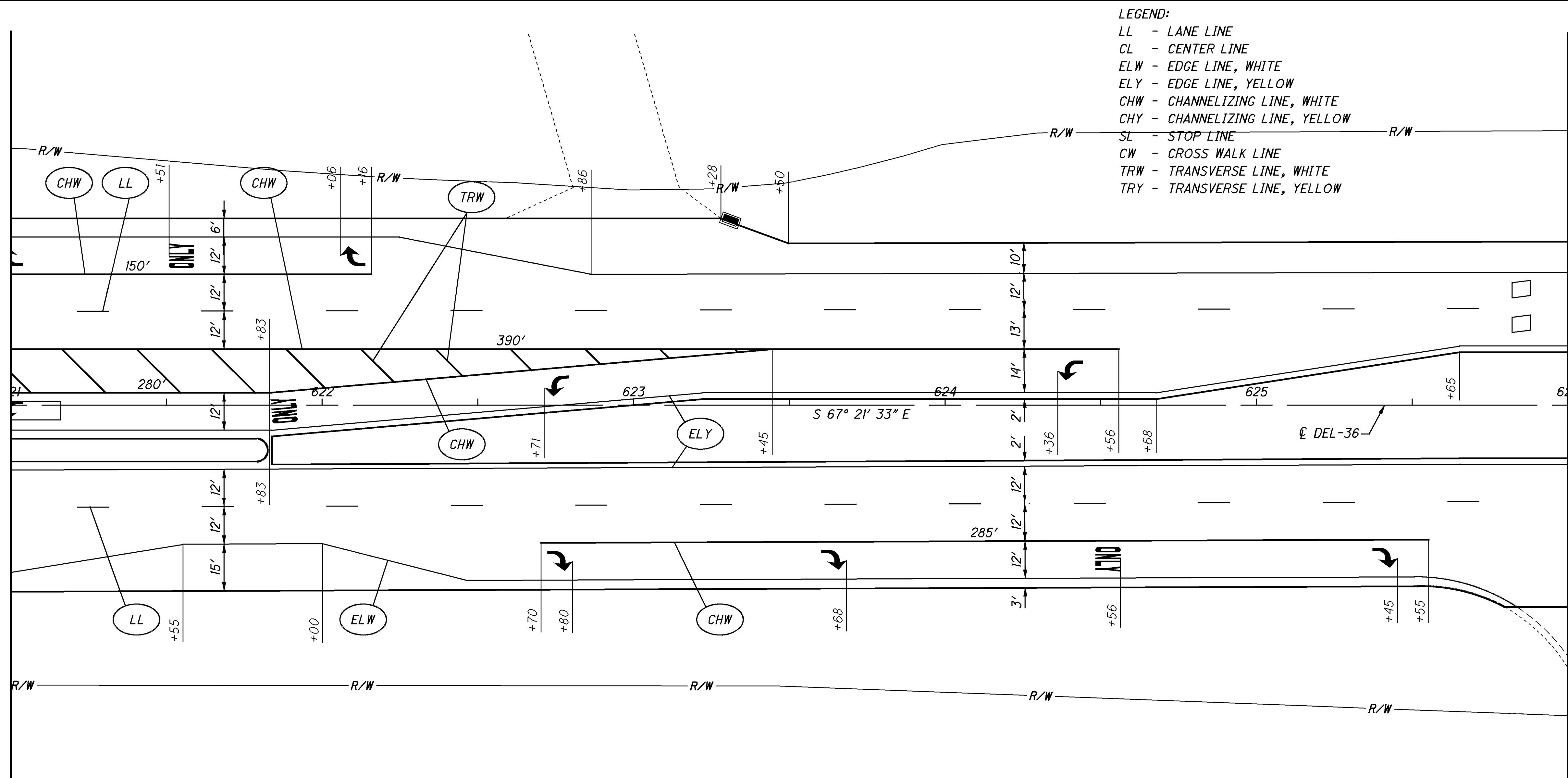


**PAVEMENT PLAN DEL-36
STA 616+00 TO STA 621+00**

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)		COMPACTED AGGREGATE (1.5")		TRACKLESS TACK COAT		DETECTOR LOOP, AS PER PLAN		LOOP DETECTOR TIE IN		EDGE LINE, WHITE		EDGE LINE, YELLOW		LANE LINE		CHANNELIZING LINE		STOP LINE		CROSSWALK LINE		TRANSVERSE/DIAGONAL LINE, WHITE		LANE ARROW, LEFT		LANE ARROW, RIGHT		WORD ON PAVEMENT, 72", "ONLY"		REMARKS
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	FT	EACH	EACH	EACH																	
US-36	616+00.00	618+91.00	4	111'	3,604	150	5	270	2	2																											
US-36	618+91.00	621+00.00	4	124'	2,888	120	4	217																													
SR-521	93+53.12	94+00.00	5	72'	377	16		28																													
US-36	616+00.00	621+00.00																0.16	0.13	0.13	1,014	124	246	256	3	3	2									PAVEMENT MARKING	
SR-521	93+53.12	94+00.00																0.02			36															PAVEMENT MARKING	
TOTALS CARRIED TO 20/93 & 23/93					6,869	286	9	515	2	2								0.18	0.13	0.13	1,014	160	246	256	3	3	2										

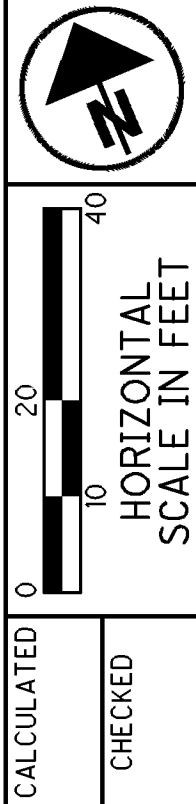
**DEL-36-7.28
DEL-521-1.76**

MATCHLINE STA 621+00
SEE SHEET 73.



MATCHLINE STA 626+00
SEE SHEET 75.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

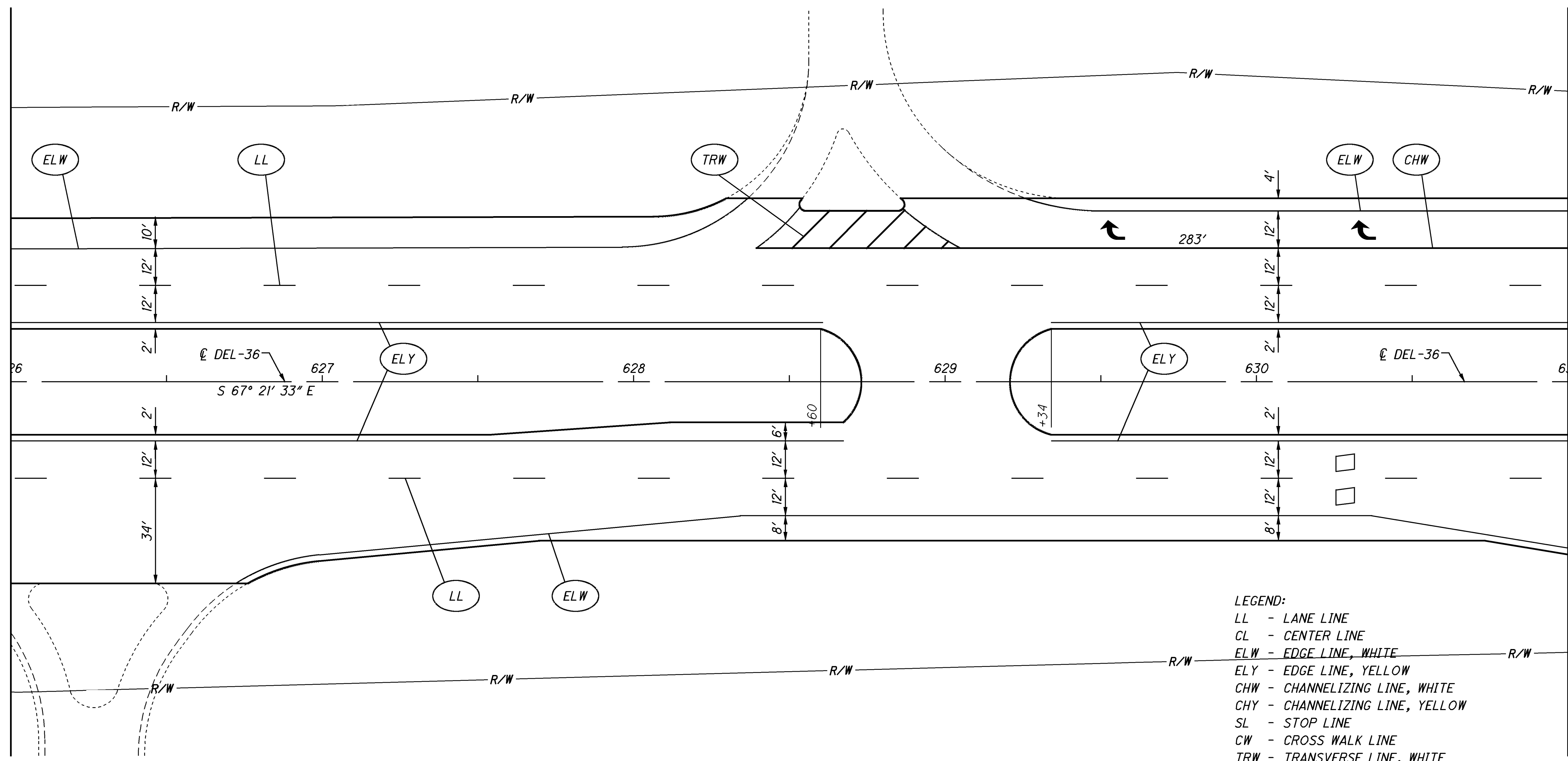


REF. NO.	BEGIN STATION	END STATION	TYPICAL		254	442	617	690	632	632	644	644	644	644	644	644	644	644	REMARKS
			AVG. PAVEMENT AND SHOULDER WIDTH																
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	MILE	FT	FT	EACH	EACH	EACH	
US-36	621+00.00	621+83.00	4	113'	1,038	43	2	78	2	2									
US-36	621+83.00	626+00.00	3	94'	4,335	181	15	325											
US-36	621+00.00	626+00.00									0.19	0.19	0.19	1,105	145	2	4	3	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					5,373	224	17	403	2	2	0.19	0.19	0.19	1,105	145	2	4	3	

PAVEMENT PLAN DEL-36
STA 621+00 TO STA 626+00

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 626+00
 SEE SHEET 74.



MATCHLINE STA 631+00
 SEE SHEET 76.

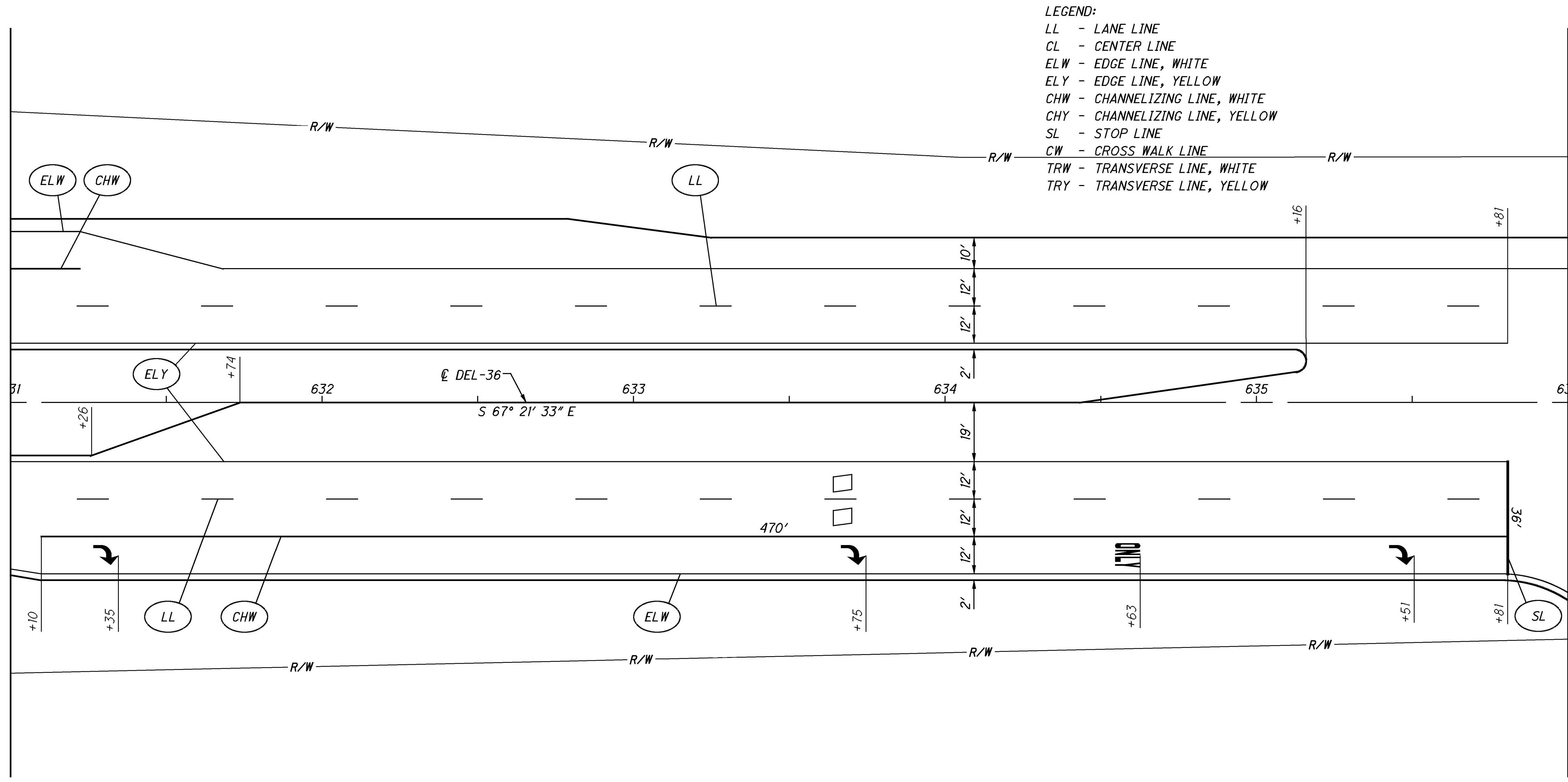
- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	617	690	632	632	644	644	644	644	644	644	REMARKS						
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, WHITE	LANE ARROW, RIGHT		SQ YD	CU YD	CU YD	GAL	EACH	EACH
US-36	626+00.00	631+00.00	3	80'	4,470	186	19	335	2	2													
US-36	626+00.00	631+00.00									0.16	0.16	0.19	283	64	2	PAVEMENT MARKING						
TOTALS CARRIED TO 20/93 & 23/93					4,470	186	19	335	2	2	0.16	0.16	0.19	283	64	2							

PAVEMENT PLAN DEL-36
 STA 626+00 TO STA 631+00

DEL-36-7.28
 DEL-521-1.76

MATCHLINE STA 631+00
SEE SHEET 75.



- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 636+00
SEE SHEET 77.

CALCULATED
 CHECKED

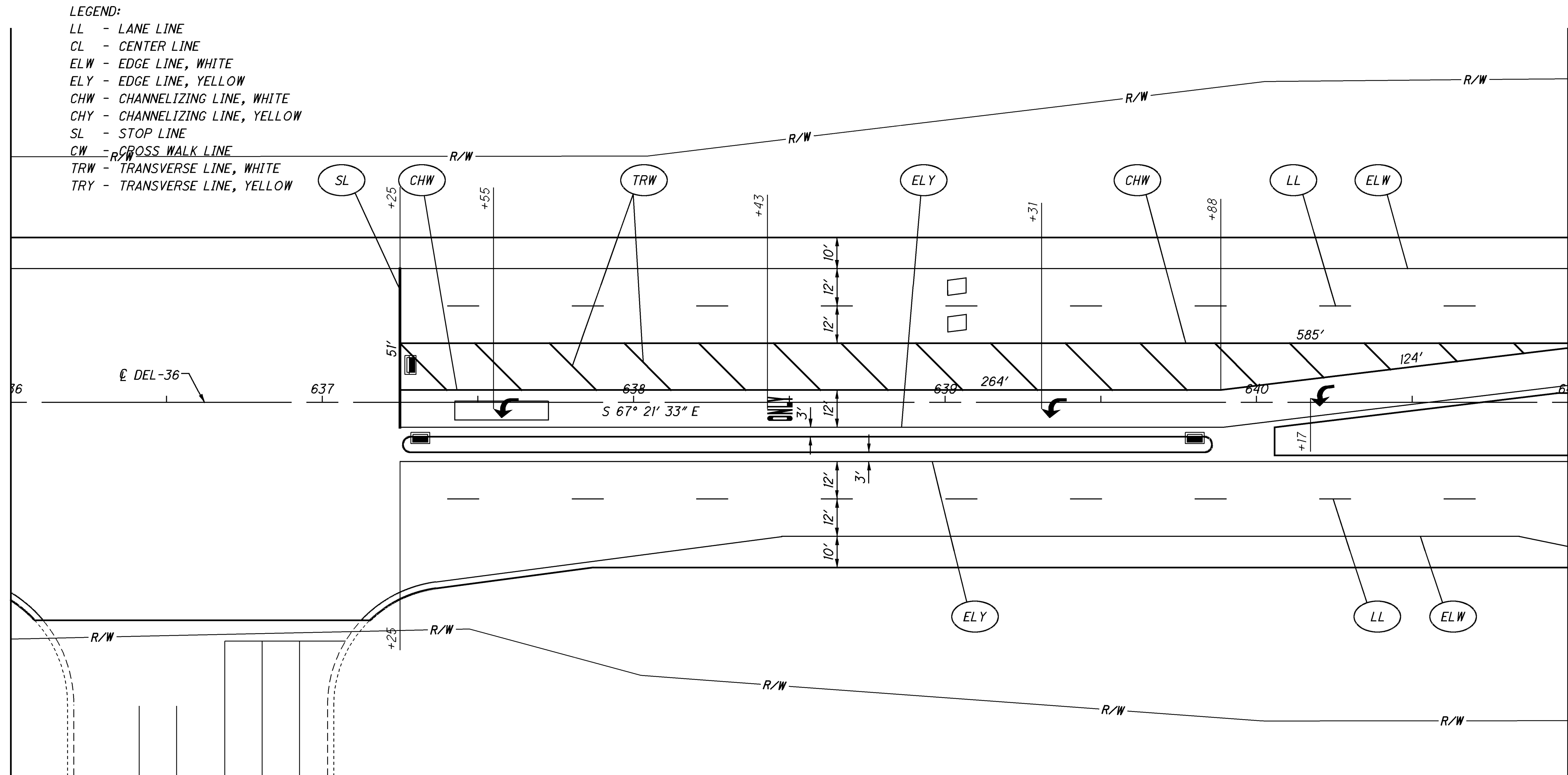
0 20 40
 HORIZONTAL
 SCALE IN FEET

PAVEMENT PLAN DEL-36
 STA 631+00 TO STA 636+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	617	690	632	632	644	644	644	644	644	REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	MILE	EACH	EACH	
US-36	631+00.00	636+00.00	3	97'	5,412	226	19	406	2	2						
US-36	631+00.00	636+00.00									0.19	0.18	0.18	3	1	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					5,412	226	19	406	2	2	0.19	0.18	0.18	3	1	

DEL-36-7.28
 DEL-521-1.76

MATCHLINE STA 636+00
SEE SHEET 76.



MATCHLINE STA 641+00
SEE SHEET 78.

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	MATERIALS				DETECTOR		EDGE LINE		LANE LINE	CHANNELIZING LINE	STOP LINE	TRANSVERSE/DIAGONAL LINE, WHITE	LANE ARROW, LEFT	WORD ON PAVEMENT, 72", "ONLY"	REMARKS
					PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	EDGE LINE, WHITE	EDGE LINE, YELLOW	FT	FT	FT	EACH	EACH		
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH	EACH	
US-36	636+00.00	637+25.00	3	122'	1,699	71	5	127	3	3									
US-36	637+25.00	639+88.00	4	101'	2,956	123	5	222											
US-36	639+88.00	641+00.00	3	96'	1,192	50	4	89											
US-36	636+00.00	641+00.00									0.19	0.14	0.14	973	51	293	3	1	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					5,847	244	14	438	3	3	0.19	0.14	0.14	973	51	293	3	1	

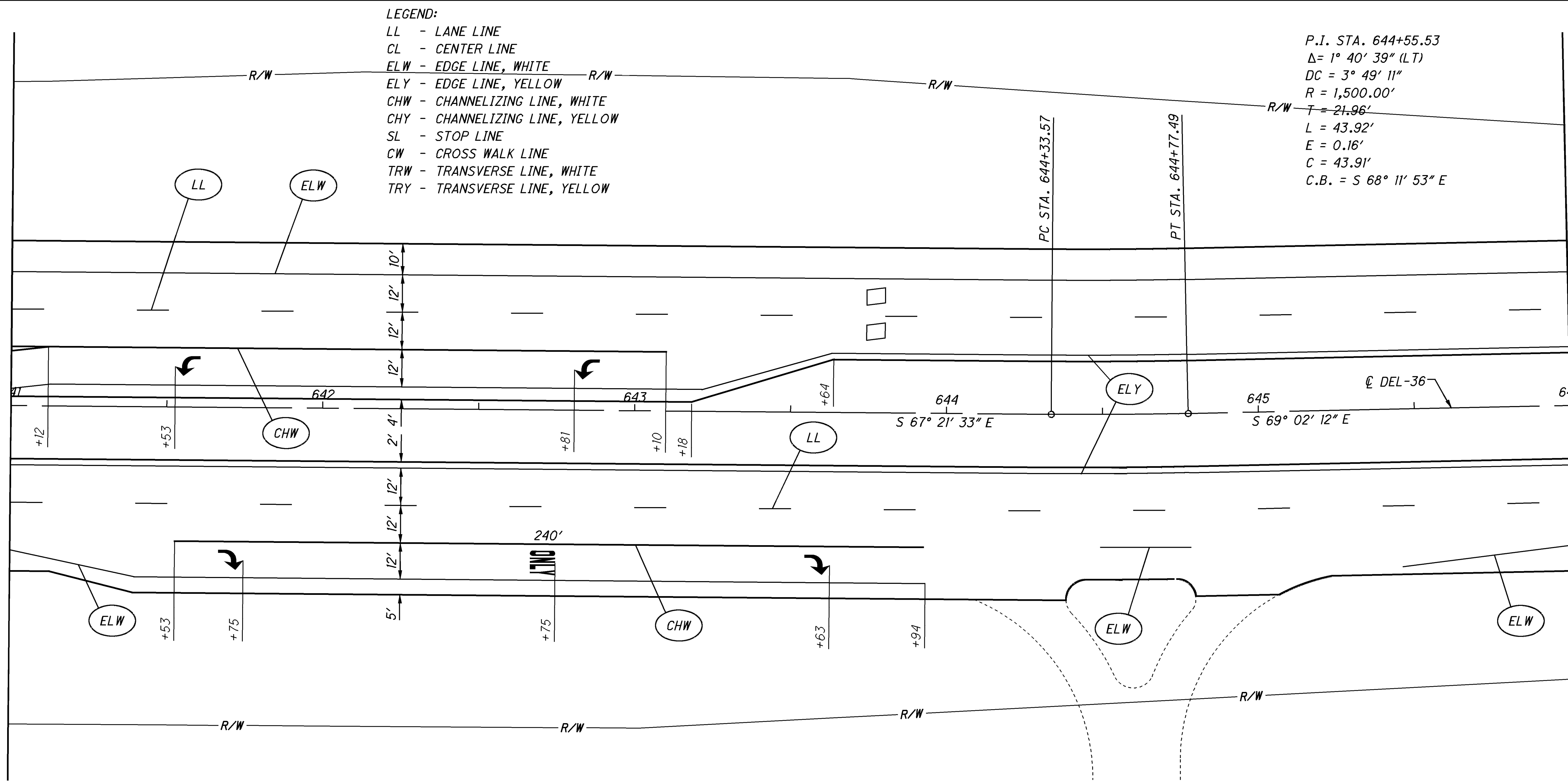
**PAVEMENT PLAN DEL-36
STA 636+00 TO STA 641+00**

**DEL-36-7.28
DEL-521-1.76**

77
93

CALCULATED
CHECKED

MATCHLINE STA 641+00
SEE SHEET 77.



- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

P.I. STA. 644+55.53
 $\Delta = 1^\circ 40' 39''$ (LT)
 $DC = 3^\circ 49' 11''$
 $R = 1,500.00'$
 $T = 21.96'$
 $L = 43.92'$
 $E = 0.16'$
 $C = 43.91'$
 $C.B. = S 68^\circ 11' 53'' E$

MATCHLINE STA 646+00
SEE SHEET 79.

CALCULATED
 CHECKED

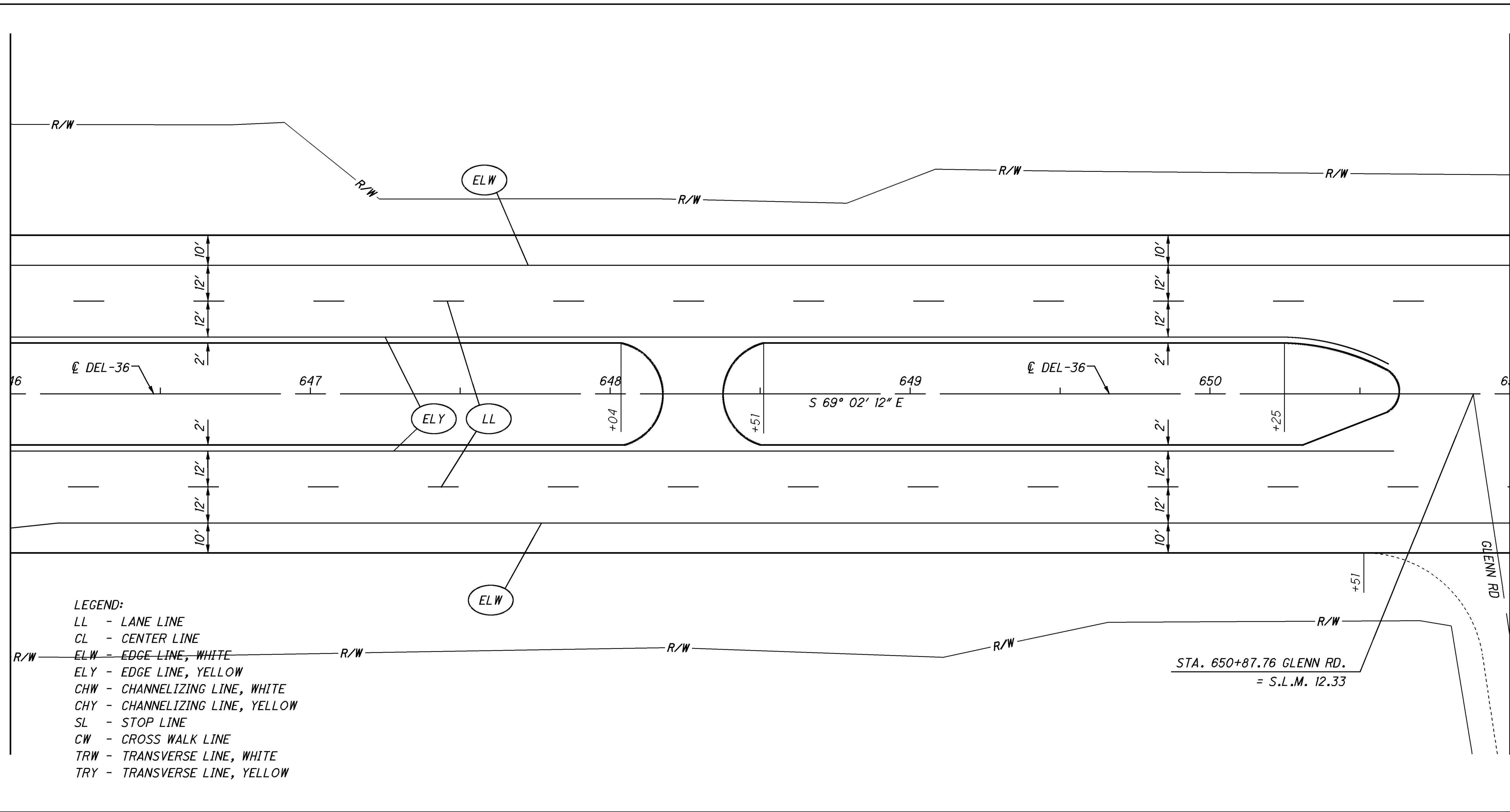
0 20 40
 HORIZONTAL
 SCALE IN FEET

PAVEMENT PLAN DEL-36
 STA 641+00 TO STA 646+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	617	690	632	632	644	644	644	644	644	644	644	REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CHANNELIZING LINE	LANE ARROW, LEFT	LANE ARROW, RIGHT	WORD ON PAVEMENT, "T2", "ONLY"	
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	MILE	FT	EACH	EACH	EACH	
US-36	641+00.00	646+00.00	3	83'	4,627	193	19	347	2	2								
US-36	641+00.00	646+00.00									0.16	0.19	0.19	240	2	2	1	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					4,627	193	19	347	2	2	0.16	0.19	0.19	240	2	2	1	

DEL-36-7.28
 DEL-521-1.76

MATCHLINE STA 646+00
SEE SHEET 78.



MATCHLINE STA 651+00
SEE SHEET 80.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

CALCULATED
CHECKED

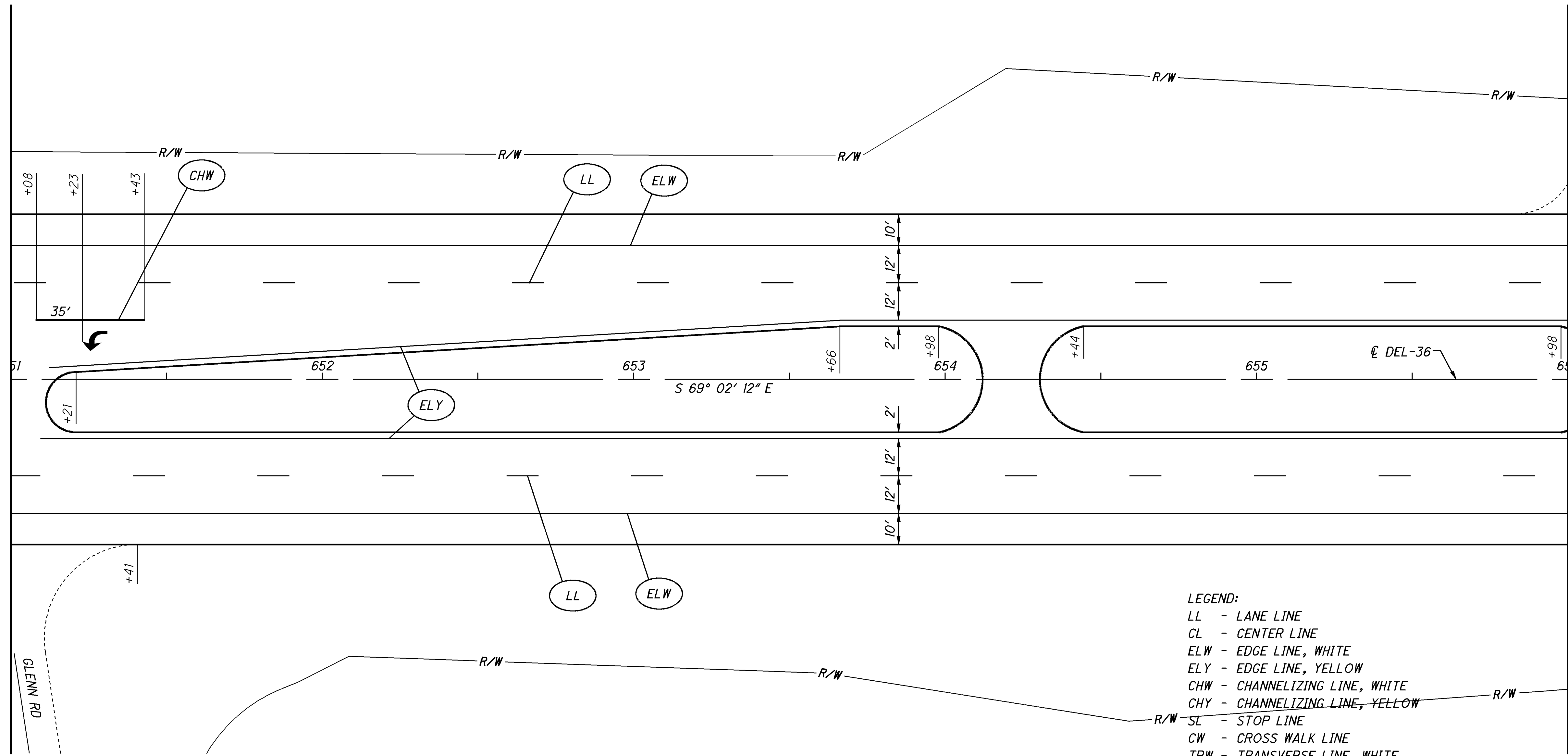
HORIZONTAL SCALE IN FEET

PAVEMENT PLAN DEL-36
STA 646+00 TO STA 651+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT MATERIALS				MARKING			REMARKS
				PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	
				SQ YD	CU YD	CU YD	GAL	MILE	MILE	MILE	
US-36	646+00.00	651+00.00	3 77'	4,281	178	19	321				
US-36	646+00.00	651+00.00						0.19	0.17	0.19	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93				4,281	178	19	321	0.19	0.17	0.19	

DEL-36-7.28
DEL-521-1.76

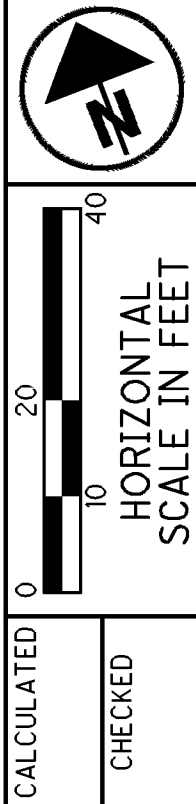
MATCHLINE STA 651+00
SEE SHEET 79.



MATCHLINE STA 656+00
SEE SHEET 81.

- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	617	690											REMARKS								
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT																			
					SQ YD	CU YD	CU YD	GAL																			
US-36	651+00.00	656+00.00	3	78'	4,359	182	19	327																			
US-36	651+00.00	656+00.00								0.19	0.19	0.19	35	1													PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					4,359	182	19	327																			

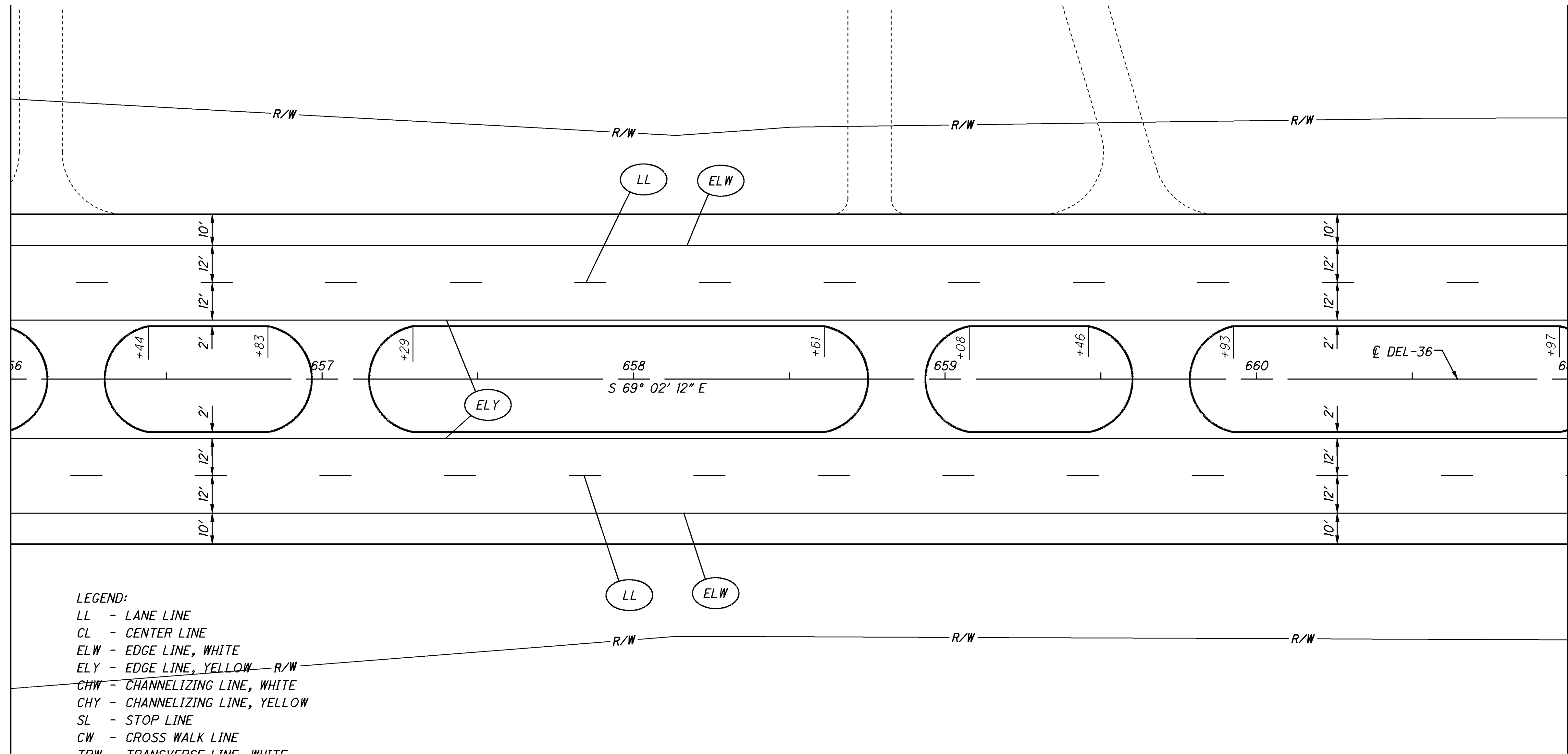


PAVEMENT PLAN DEL-36
 STA 651+00 TO STA 656+00

DEL-36-7.28
 DEL-521-1.76

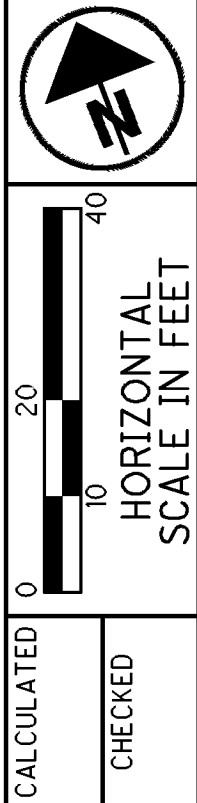
80
 93

MATCHLINE STA 656+00
SEE SHEET 80.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 661+00
SEE SHEET 82.

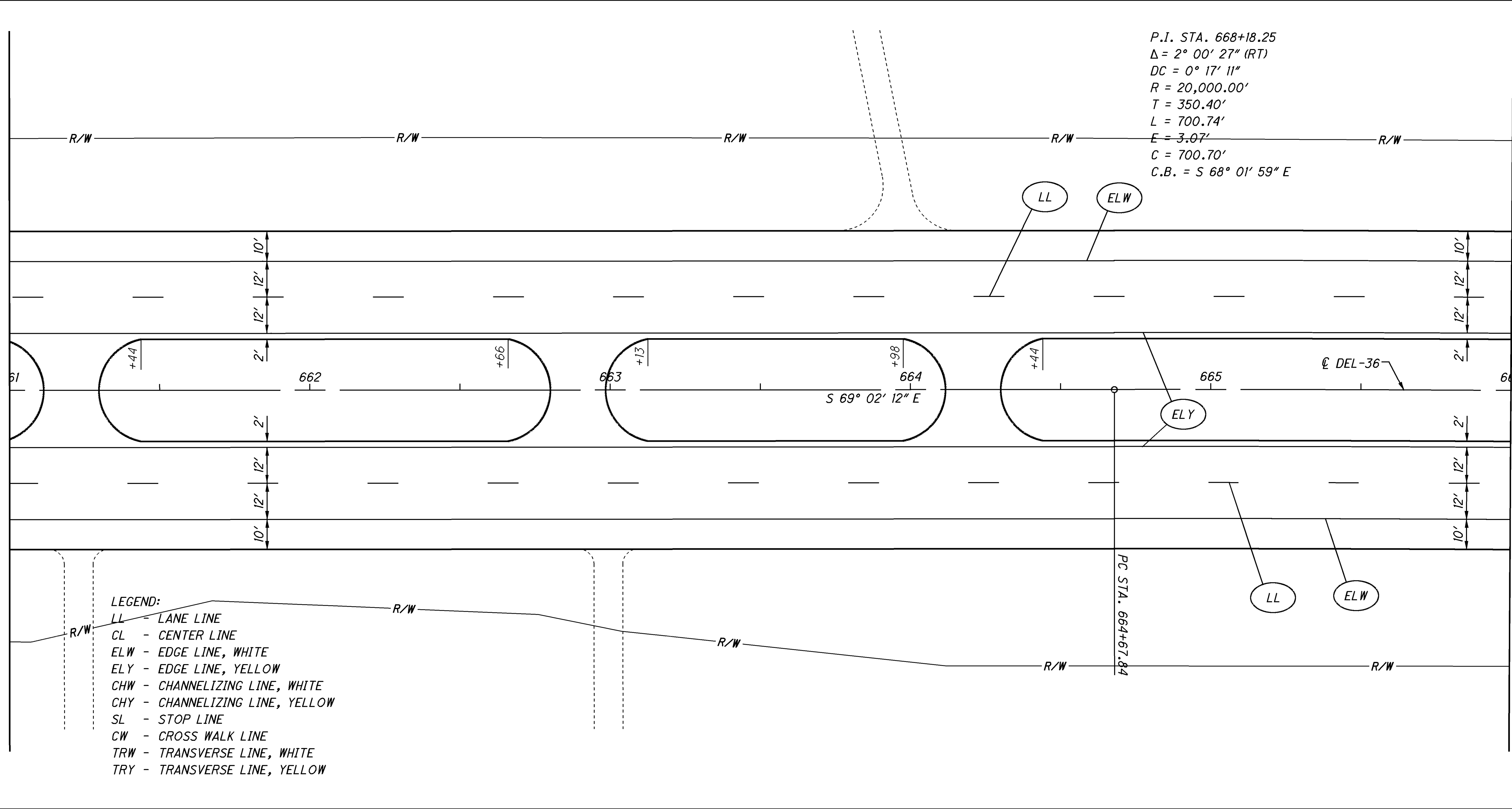


PAVEMENT PLAN DEL-36
STA 656+00 TO STA 661+00

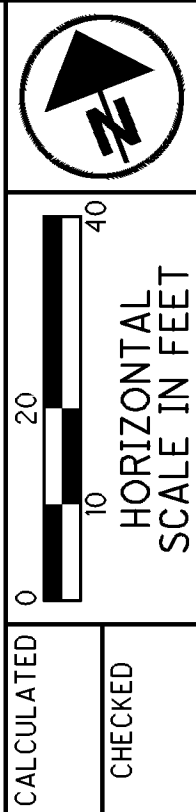
REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT MATERIALS				MARKINGS			REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	
					SQ YD	CU YD	CU YD	GAL	MILE	MILE	MILE	
US-36	656+00.00	661+00.00	3	79'	4,384	183	19	329				
US-36	656+00.00	661+00.00							0.19	0.19	0.19	PAVEMENT MARKING
TOTALS CARRIED TO 21/93 & 24/93					4,384	183	19	329	0.19	0.19	0.19	

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 661+00
SEE SHEET 81.



MATCHLINE STA 666+00
SEE SHEET 83.

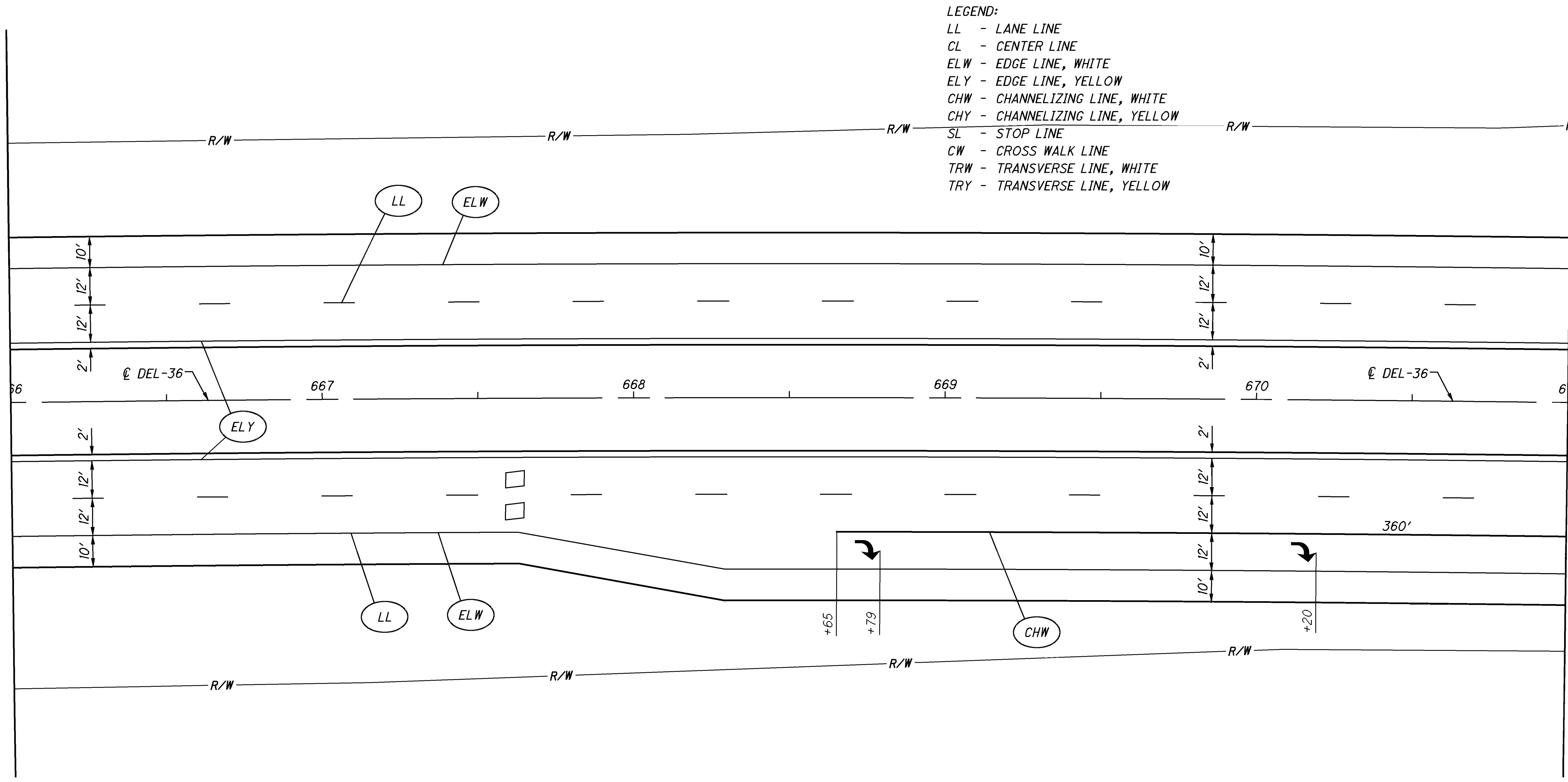


REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)				PAVEMENT MARKING			REMARKS
					254	442	617	690	644	644	644	
					SQ YD	CU YD	CU YD	GAL	MILE	MILE	MILE	
US-36	661+00.00	666+00.00	3	77'	4,288	179	19	322				
US-36	661+00.00	666+00.00							0.19	0.19	0.19	PAVEMENT MARKING
TOTALS CARRIED TO 21/93 & 24/93					4,288	179	19	322	0.19	0.19	0.19	

PAVEMENT PLAN DEL-36
STA 661+00 TO STA 666+00

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 666+00
SEE SHEET 82.



- LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 671+00
SEE SHEET 84.

CALCULATED
CHECKED

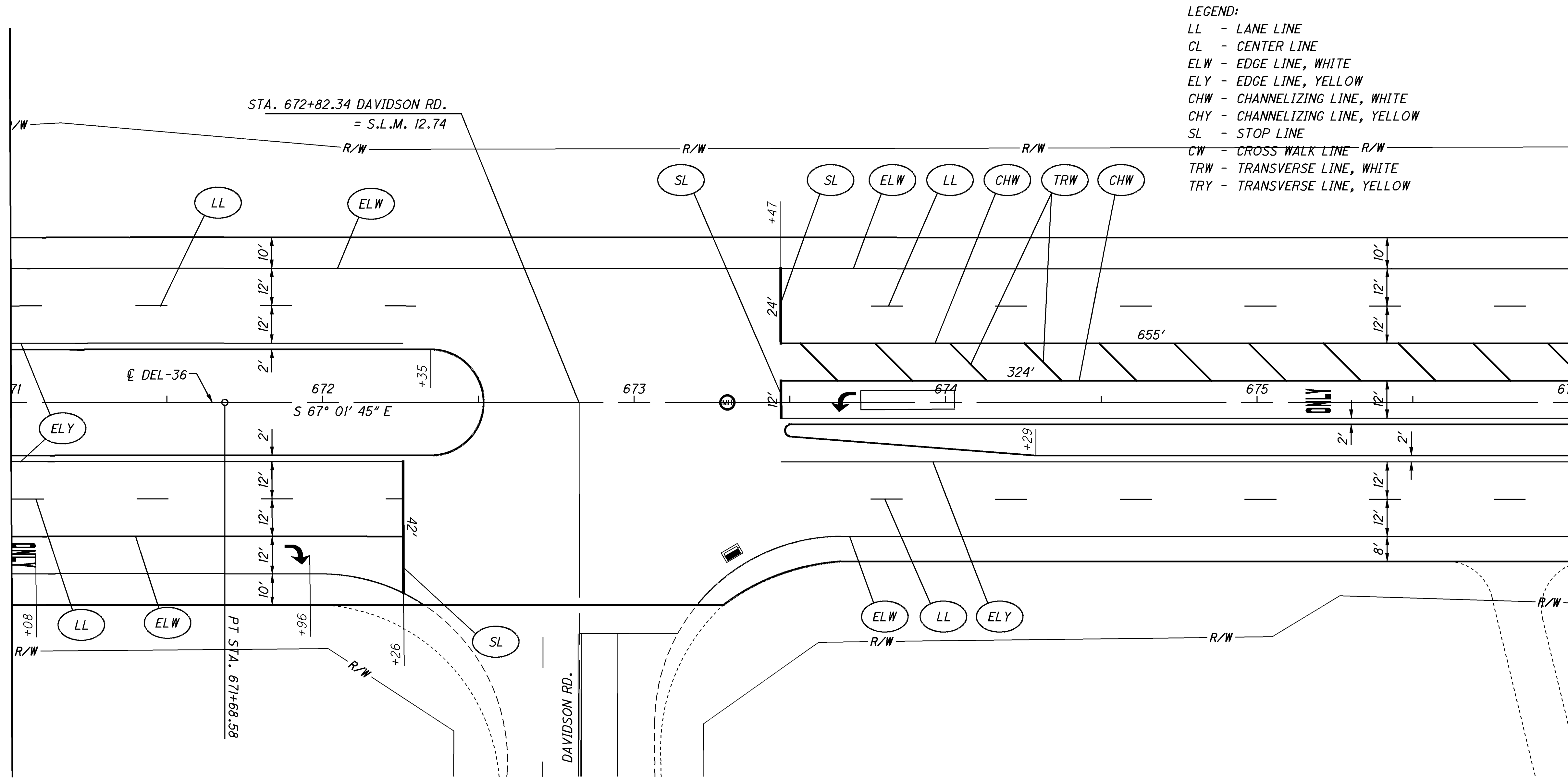
0 20 40
HORIZONTAL
SCALE IN FEET

PAVEMENT PLAN DEL-36
STA 666+00 TO STA 671+00

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	617	690		632	632		644	644	644	644	644	REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CHANNELIZING LINE	LANE ARROW, RIGHT	UNIT		
US-36	666+00.00	671+00.00	3	79'	SQ YD	CU YD	CU YD	GAL		EACH	EACH		MILE	MILE	MILE	FT	EACH	
					4,404	184	19	330		2	2							
US-36	666+00.00	671+00.00											0.19	0.19	0.19	360	2	PAVEMENT MARKING
TOTALS CARRIED TO 21/93 & 24/93					4,404	184	19	330		2	2		0.19	0.19	0.19	360	2	

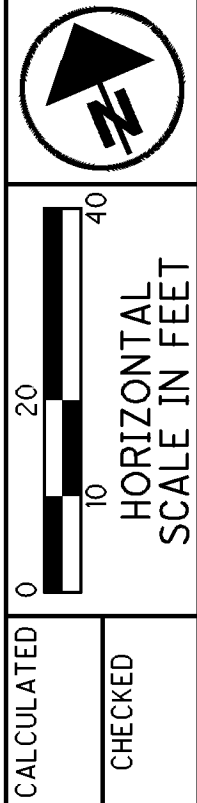
DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 671+00
SEE SHEET 83.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE - R/W
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

MATCHLINE STA 676+00
SEE SHEET 85.

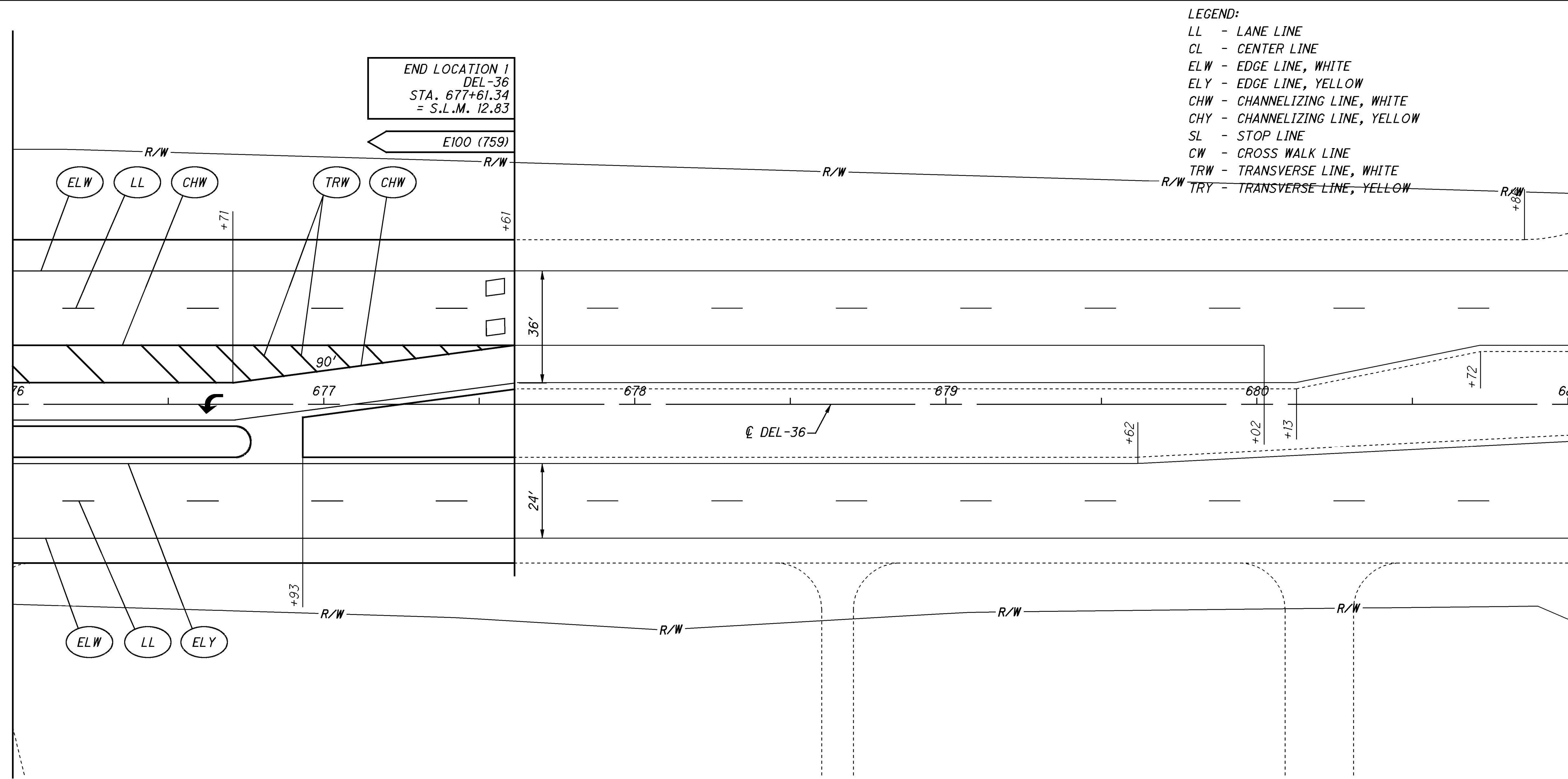


REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)				DETECTOR LOOP, AS PER PLAN		EDGE LINE, WHITE		EDGE LINE, YELLOW		LANE LINE		CHANNELIZING LINE		STOP LINE		TRANSVERSE/DIAGONAL LINE, WHITE		LANE ARROW, LEFT		LANE ARROW, RIGHT		WORD ON PAVEMENT, 72", "ONLY"		REMARKS
					254	442	617	690	632	632	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644		
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH	EACH	EACH										
US-36	671+00.00	673+47.00	3	98'	2,684	112	9	201	1	1																			
US-36	673+47.00	676+00.00	4	95'	2,659	111	5	199																					
US-36	671+00.00	676+00.00									0.19	0.14	0.15	979	78	187	1	1	2								PAVEMENT MARKING		
TOTALS CARRIED TO 21/93 & 24/93					5,343	223	14	400	1	1	0.19	0.14	0.15	979	78	187	1	1	2										

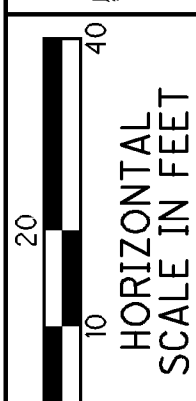
PAVEMENT PLAN DEL-36
STA 671+00 TO STA 676+00

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 676+00
SEE SHEET 84.



REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT				DETECTOR		EDGE LINE		LANE LINE	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE, WHITE	LANE ARROW, LEFT	REMARKS
					254	442	617	690	632	632	644	644	644	644	644		
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	MILE	FT	FT	EACH	
US-36	676+00.00	676+93.24	4	96'	994	41	2	75	2	2							
US-36	676+93.24	677+61.34	3	87'	655	27	3	49									
US-36	676+00.00	677+61.34									0.06	0.06	0.06	90	123	1	PAVEMENT MARKING
TOTALS CARRIED TO 21/93 & 24/93					1,649	68	5	124	2	2	0.06	0.06	0.06	90	123	1	

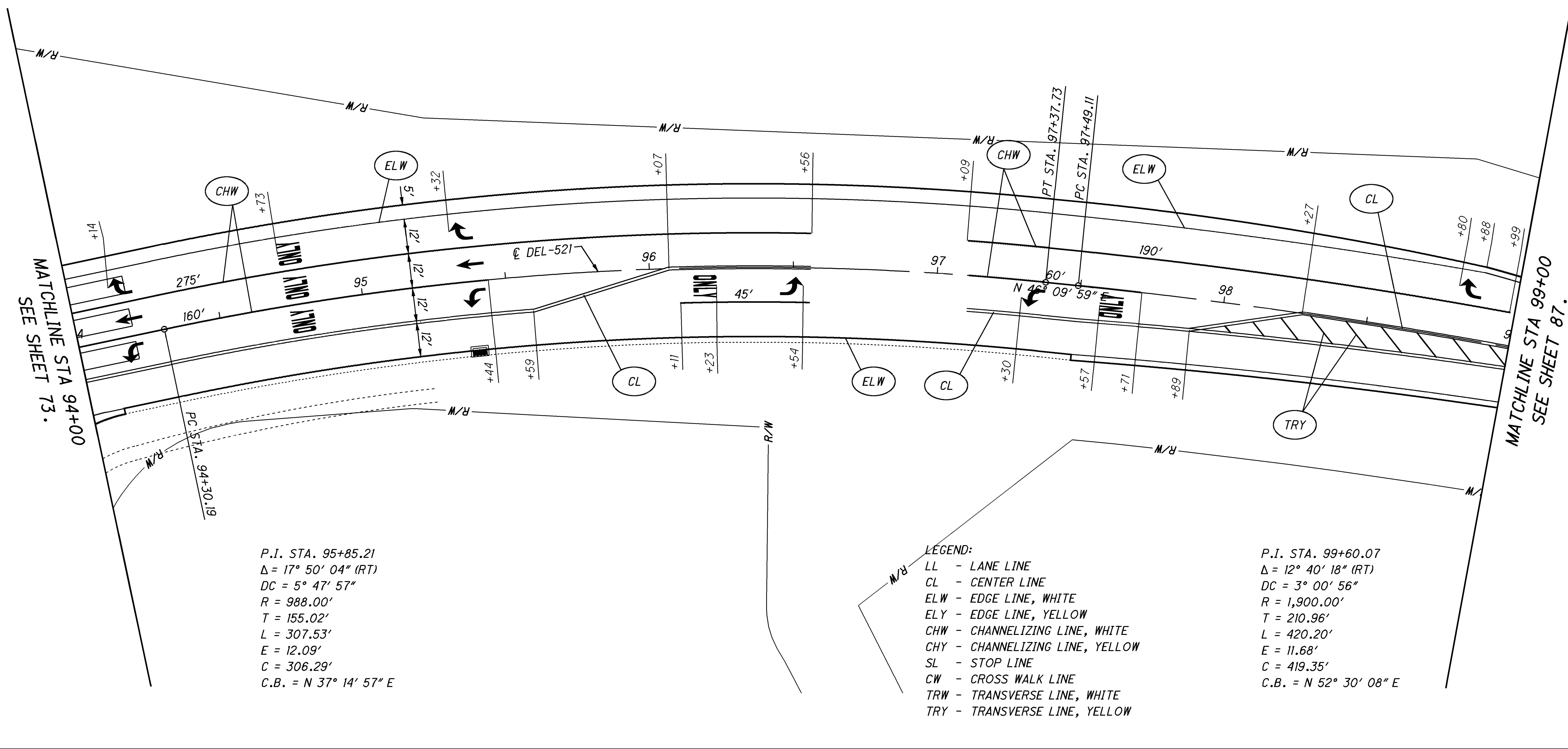


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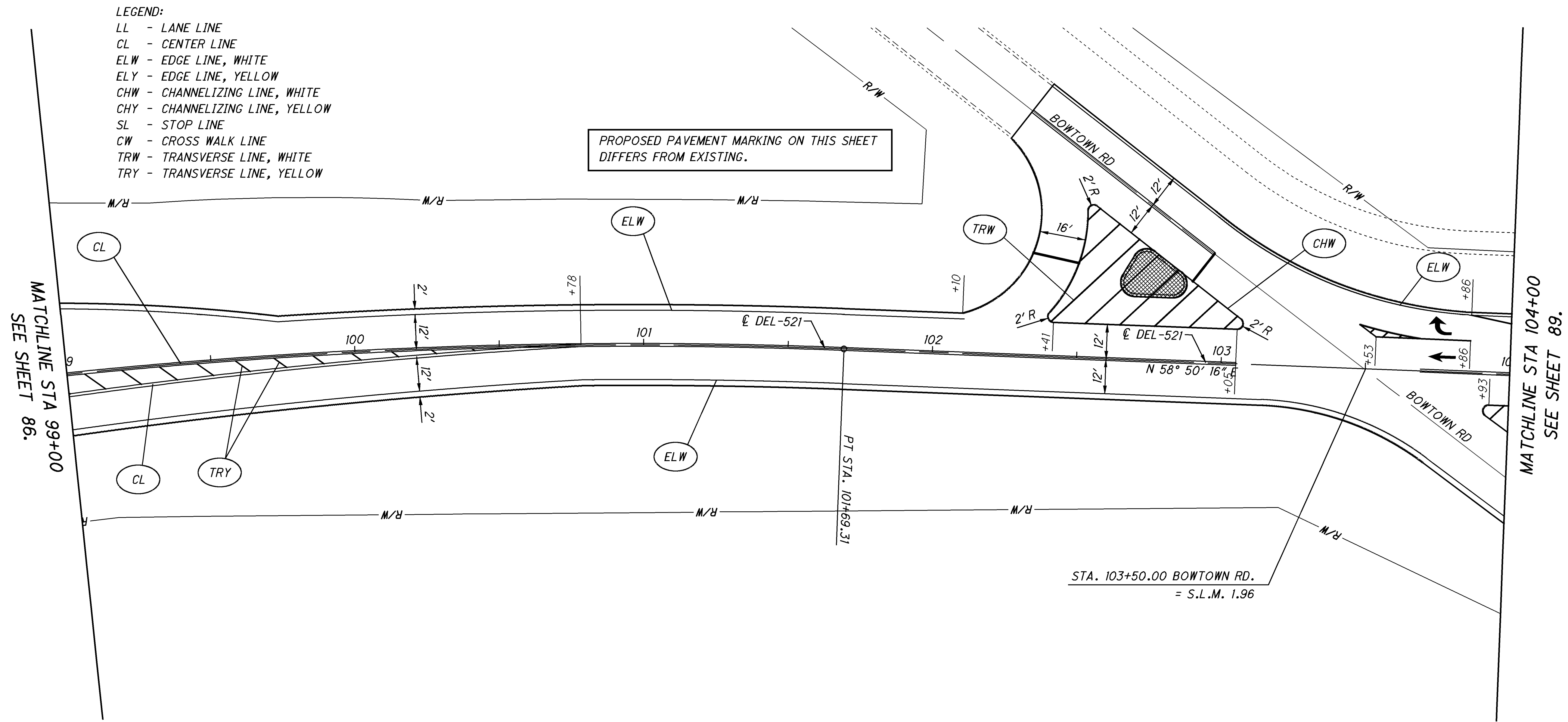
**PAVEMENT PLAN DEL-521
STA 94+00 TO STA 99+00**

**DEL-36-7.28
DEL-521-1.76**

86
93



REF. NO.	BEGIN STATION	END STATION	TYPICAL		254	442	617	690	632	632	644	644	644	644	644	644	644	644	REMARKS
			AVG. PAVEMENT AND SHOULDER WIDTH																
					SQ YD	CU YD	CU YD	GAL	EACH	EACH	MILE	MILE	FT	FT	EACH	EACH	EACH	EACH	
SR-521	94+00.00	97+49.11	5	53'	2,063	86		155	3	3									
SR-521	97+49.11	99+00.00	6	52'	866	36	3	65											
SR-521	94+00.00	99+00.00									0.13	0.13	685	85	4	2	3	5	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					2,929	122	3	220	3	3	0.13	0.13	685	85	4	2	3	5	



CALCULATED

CHECKED

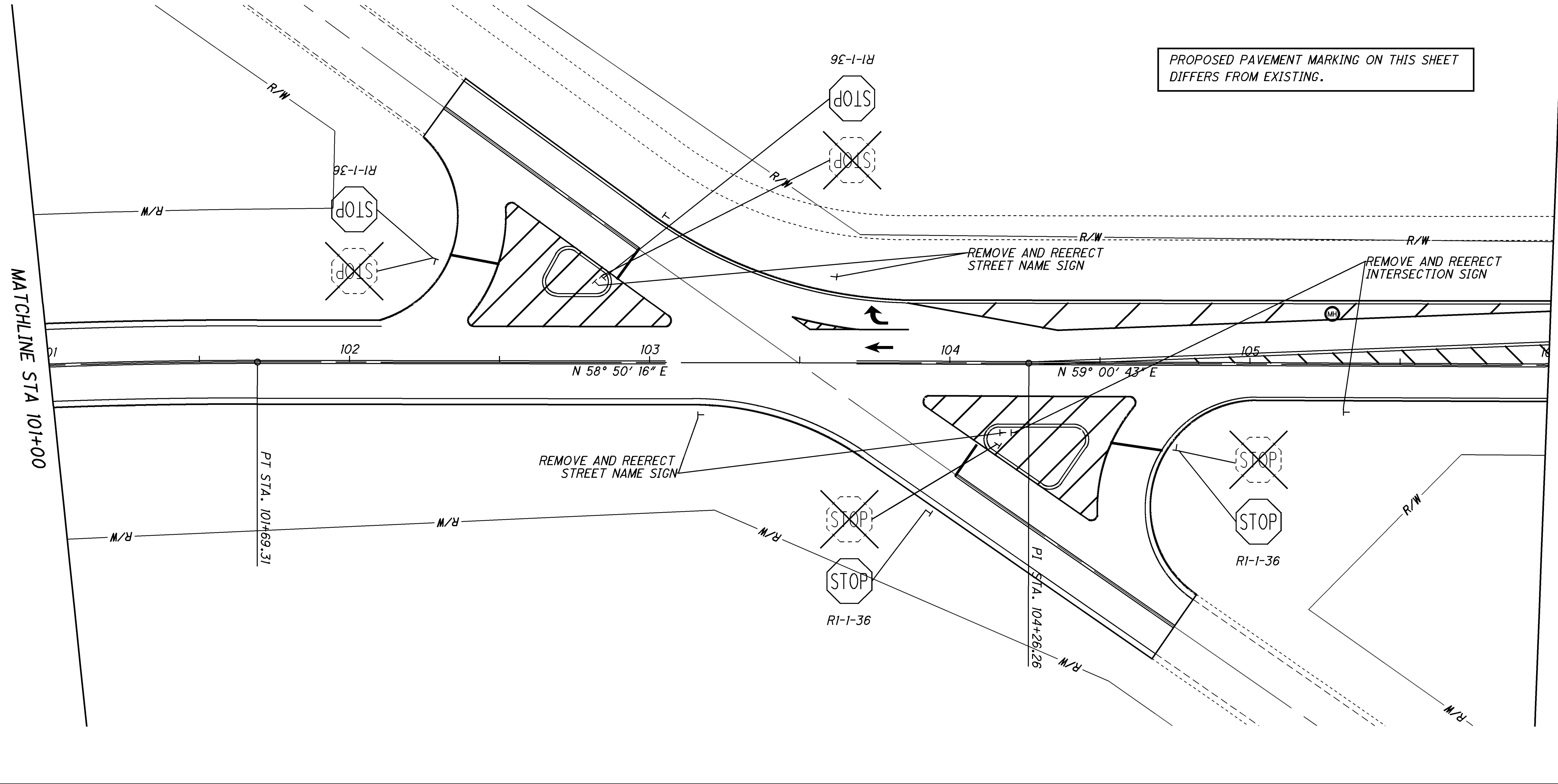
**PAVEMENT PLAN DEL-521
STA 99+00 TO STA 104+00**

REF. NO.	BEGIN STATION	END STATION	TYPICAL		254	442	617	690												REMARKS
			AVG. PAVEMENT AND SHOULDER WIDTH																	
					SQ YD	CU YD	CU YD	GAL												
SR-521	99+00.00	102+10.00	6	32'	1,089	45	6	82												
SR-521	102+10.00	104+00.00	6	64'	1,351	56	4	101												
SR-521	99+00.00	104+00.00																		PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					2,440	101	10	183												

**DEL-36-7.28
DEL-521-1.76**

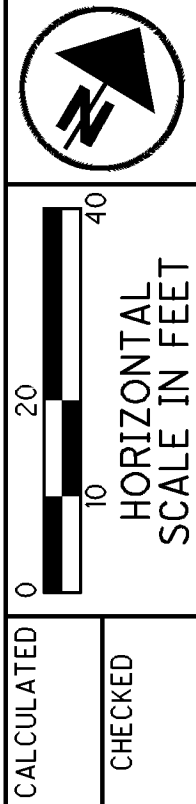
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MATCHLINE STA 101+00



MATCHLINE STA 106+00

PROPOSED PAVEMENT MARKING ON THIS SHEET DIFFERS FROM EXISTING.

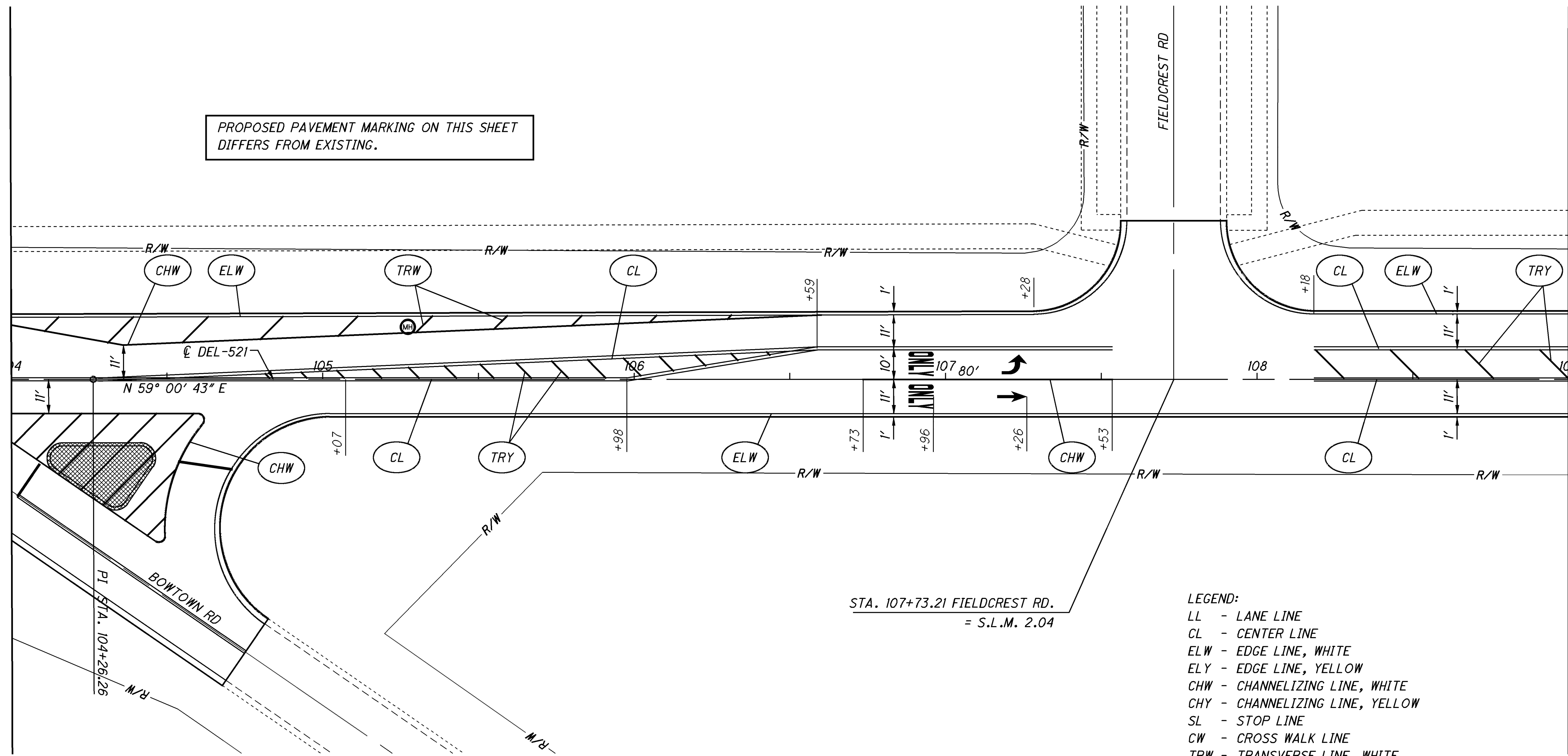


REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	202	203	204	304	301	442	690		630	630	630	630	630	REMARKS	
					FT	CU YD	SQ YD	BASE	ASPHALT CONCRETE	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT FOR INTERMEDIATE COURSE	GROUND MOUNTED SUPPORT #3 POST	SIGN POST REFLECTOR	SIGN FLAT SHEET	REMOVAL GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL GROUND MOUNTED SIGN REERECTION		
SR-521	102+65.00	102+86.00	6	CADD	65	10	31	5	5	1	16							REMOVE & REPLACE GRASSY ISLAND	
SR-521	104+11.00	104+45.00	6	CADD	90	20	58	10	10	2	29							REMOVE & REPLACE GRASSY ISLAND	
															2	3	2	REERECT STREET NAME SIGNS	
															3	4	3	REERECT STREET NAME SIGNS	
																		4 STOP SIGNS	
													42	2				2 STOP SIGNS AND STREET NAME	
													56	2				2 STOP SIGNS AND STREET NAME	
TOTALS CARRIED TO 20/93 & 23/93					155	31	89	15	15	4	45		98	4	36	5	7	5	

PAVEMENT PLAN DEL-521
STA 101+00 TO STA 106+00

DEL-36-7.28
DEL-521-1.76

MATCHLINE STA 104+00
SEE SHEET 87.



LEGEND:

- LL - LANE LINE
- CL - CENTER LINE
- ELW - EDGE LINE, WHITE
- ELY - EDGE LINE, YELLOW
- CHW - CHANNELIZING LINE, WHITE
- CHY - CHANNELIZING LINE, YELLOW
- SL - STOP LINE
- CW - CROSS WALK LINE
- TRW - TRANSVERSE LINE, WHITE
- TRY - TRANSVERSE LINE, YELLOW

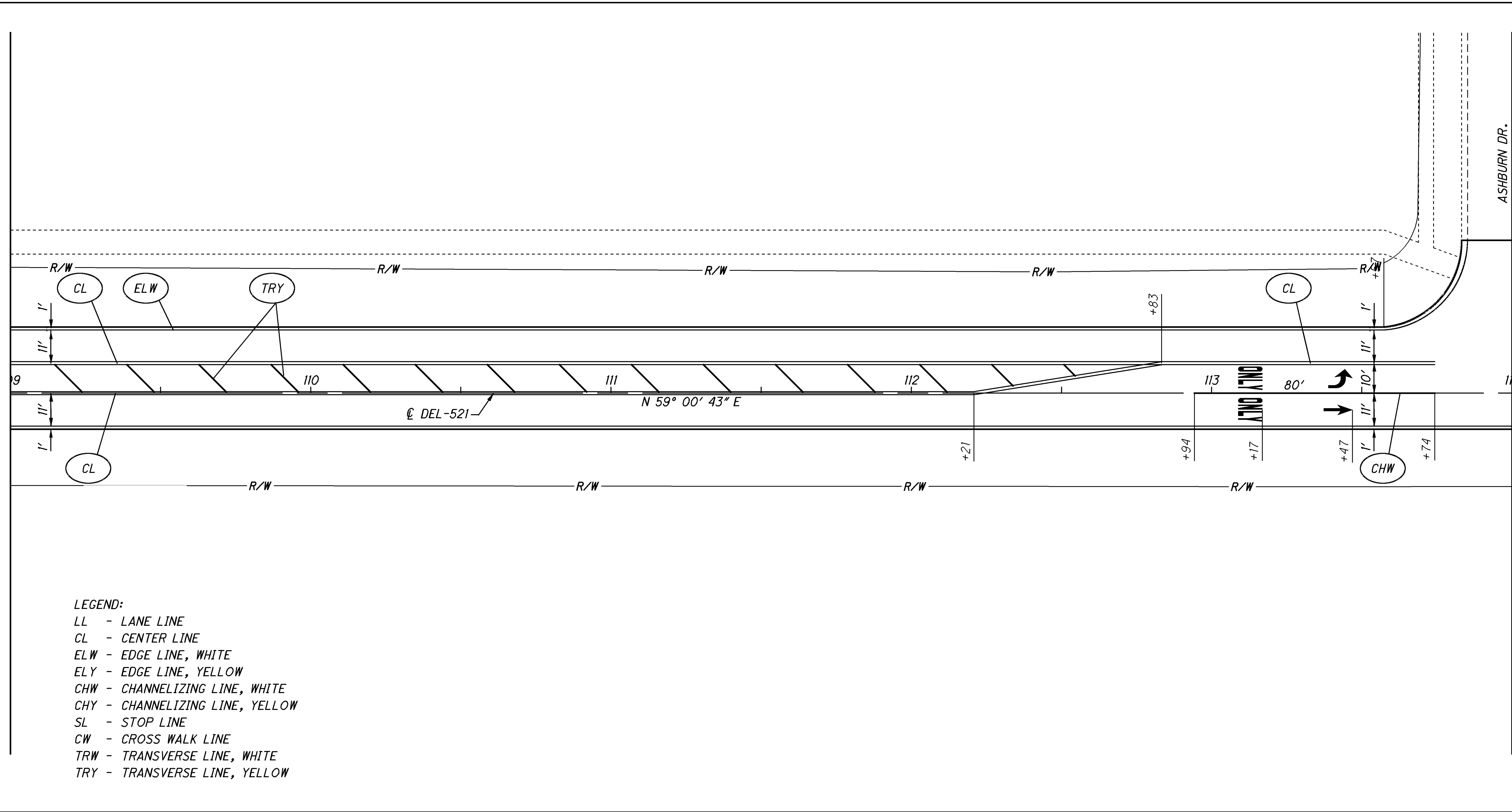
REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	PAVEMENT PLANNING, ASPHALT CONCRETE (1.5" DEPTH)				PAVEMENT PLANNING, ASPHALT CONCRETE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)				PAVEMENT PLANNING, COMPACTED AGGREGATE (1.5")				PAVEMENT PLANNING, TRACKLESS TACK COAT				REMARKS		
					SQ YD	CU YD	CU YD	CU YD	GAL	GAL	GAL	GAL	MILE	MILE	FT	FT	FT	FT	EACH	EACH		EACH	
SR-521	104+00.00	105+98.00	6	42'	925	39	4	69															
SR-521	105+98.00	107+28.00	6	57'	824	34	2	62															
SR-521	107+28.00	108+18.00	6	49'	487	20	2	37															
SR-521	108+18.00	109+00.00	6	34'	309	13	2	23															
SR-521	104+00.00	109+00.00																				PAVEMENT MARKING	
TOTALS CARRIED TO 20/93 & 23/93					2,545	106	10	191															



PAVEMENT PLAN DEL-521
STA 104+00 TO STA 109+00

DEL-36-7.28
DEL-521-1.76

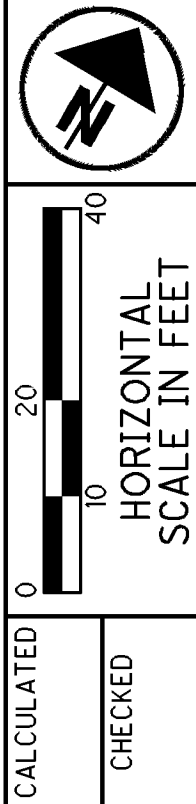
MATCHLINE STA 109+00
SEE SHEET 89.



MATCHLINE STA 114+00
SEE SHEET 91.

- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL		254	442	617	690												REMARKS	
			AVG. PAVEMENT AND SHOULDER WIDTH																		PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)
					SQ YD	CU YD	CU YD	GAL													
SR-521	109+00.00	113+57.00	6	34'	1,728	72	8	130													
SR-521	113+57.00	114+00.00	6	49'	234	10	1	18													
SR-521	109+00.00	114+00.00																			PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					1,962	82	9	148													



PAVEMENT PLAN DEL-521
STA 109+00 TO STA 114+00

DEL-36-7.28
DEL-521-1.76

90
93



CALCULATED

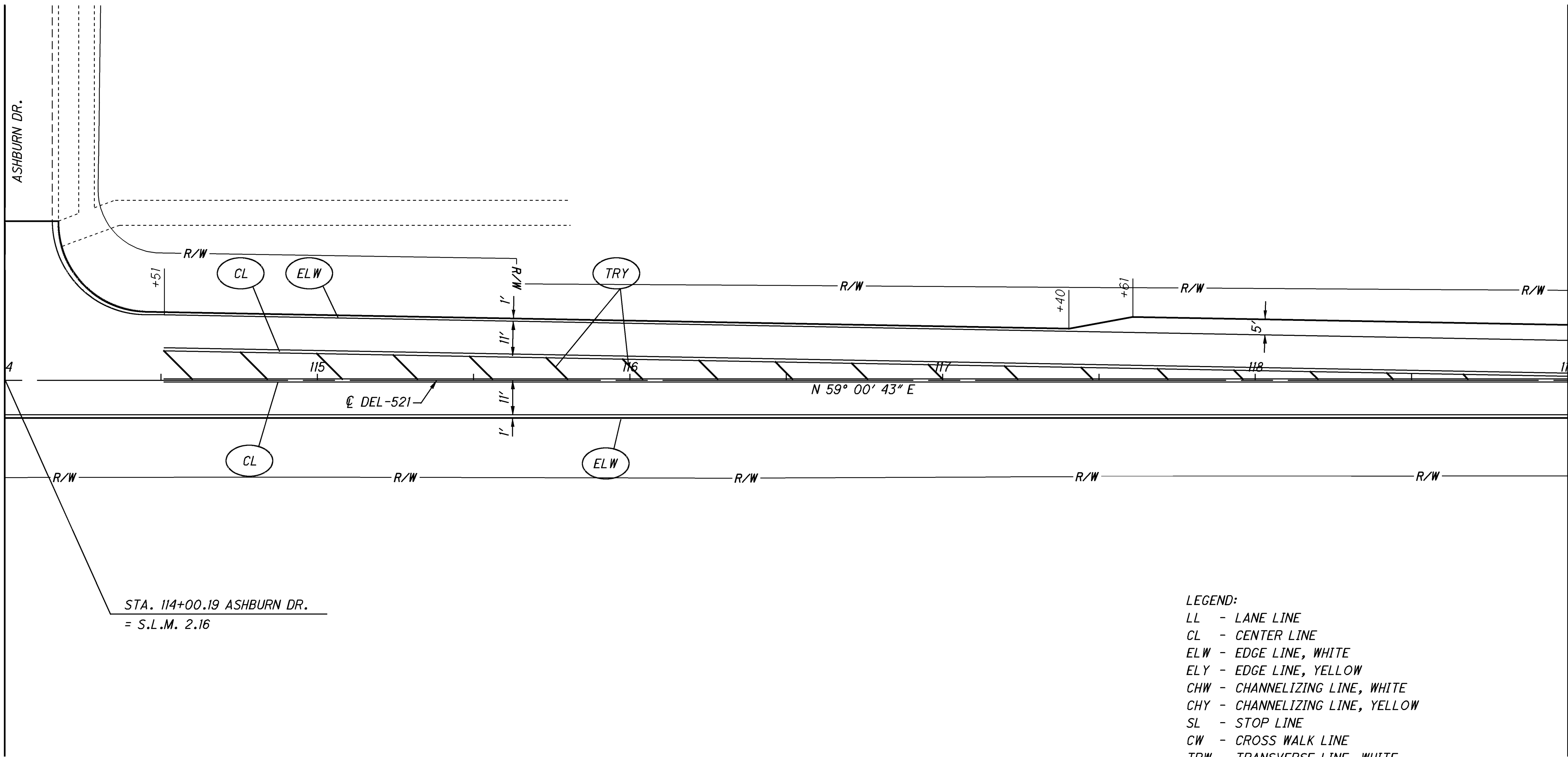
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**PAVEMENT PLAN DEL-521
STA 114+00 TO STA 119+00**

**DEL-36-7.28
DEL-521-1.76**

91
93

MATCHLINE STA 114+00
SEE SHEET 90.



MATCHLINE STA 119+00
SEE SHEET 92.

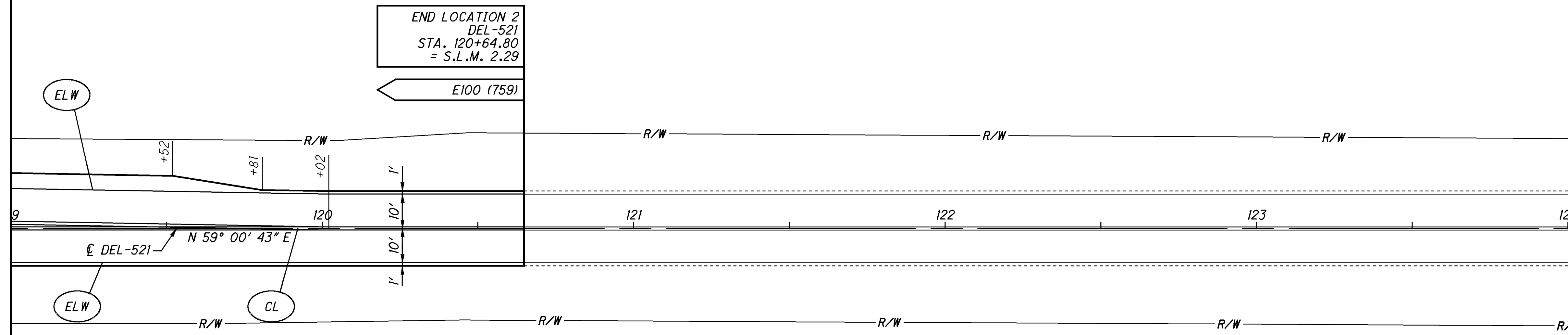
LEGEND:

- LL - LANE LINE
- CL - CENTER LINE
- ELW - EDGE LINE, WHITE
- ELY - EDGE LINE, YELLOW
- CHW - CHANNELIZING LINE, WHITE
- CHY - CHANNELIZING LINE, YELLOW
- SL - STOP LINE
- CW - CROSS WALK LINE
- TRW - TRANSVERSE LINE, WHITE
- TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL		PAVEMENT PLAN				MARKING			REMARKS	
			AVG. PAVEMENT AND SHOULDER WIDTH		PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)	TRANSVERSE/DIAGONAL LINE, YELLOW		
					SQ YD	CU YD	CU YD	GAL		MILE	MILE	FT	
SR-521	114+00.00	114+51.00	6	47'	266	11	1	20					
SR-521	114+51.00	119+00.00	6	31'	1,556	65	8	117					
TOTALS CARRIED TO 20/93 & 23/93					1,822	76	9	137		0.19	0.18	133	PAVEMENT MARKING

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MATCHLINE STA 119+00
SEE SHEET 91.



- LEGEND:
- LL - LANE LINE
 - CL - CENTER LINE
 - ELW - EDGE LINE, WHITE
 - ELY - EDGE LINE, YELLOW
 - CHW - CHANNELIZING LINE, WHITE
 - CHY - CHANNELIZING LINE, YELLOW
 - SL - STOP LINE
 - CW - CROSS WALK LINE
 - TRW - TRANSVERSE LINE, WHITE
 - TRY - TRANSVERSE LINE, YELLOW

REF. NO.	BEGIN STATION	END STATION	TYPICAL	AVG. PAVEMENT AND SHOULDER WIDTH	254	442	617	690			644	644							REMARKS
					PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT			EDGE LINE, WHITE	CENTER LINE (DOUBLE SOLID)							
					SQ YD	CU YD	CU YD	GAL			MILE	MILE							
SR-521	119+00.00	120+64.80	6	26'	479	20	3	36											
SR-521	119+00.00	120+64.80									0.06	0.05							PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					479	20	3	36			0.06	0.05							

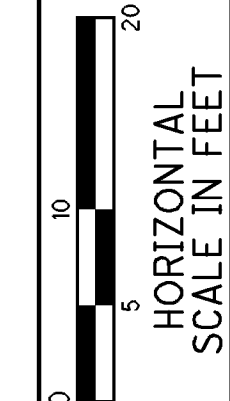
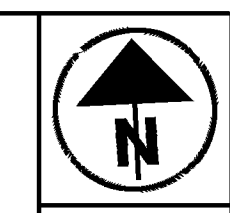
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**PAVEMENT PLAN DEL-521
STA 119+00 TO STA 120+64.80**

**DEL-36-7.28
DEL-521-1.76**

92
93

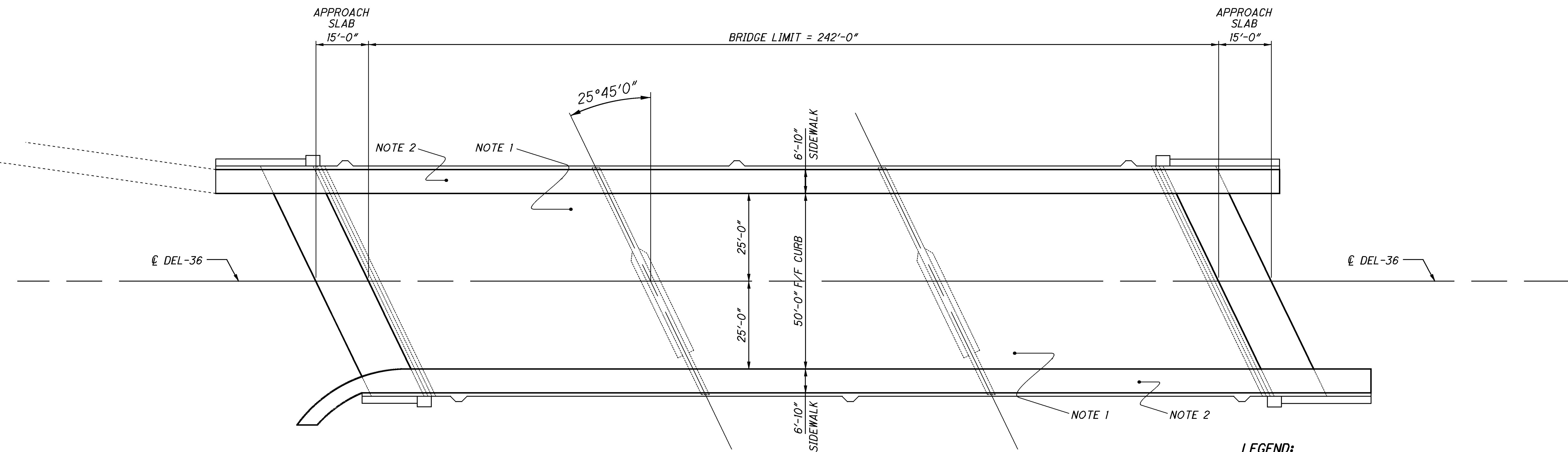


CALCULATED
DKR

STRUCTURE FILE NUMBER
2100878

STRUCTURE SUBSUMMARY AND DETAILS
BRIDGE NO. DEL-36-1043 (3-SPAN STEEL BEAM BRIDGE OVER OLENTANGY RIVER)

DEL-36-7.28
DEL-521-1.76
PID No. 88636



NOTES:

NOTE 1:
DO NOT PAVE DECK OR APPROACH SLABS. PROPOSED TREATING OF CONCRETE BRIDGE DECK AND APPROACH SLABS WITH SRS.

NOTE 2:
PROPOSED TREATING OF CONCRETE SIDEWALKS WITH SRS.

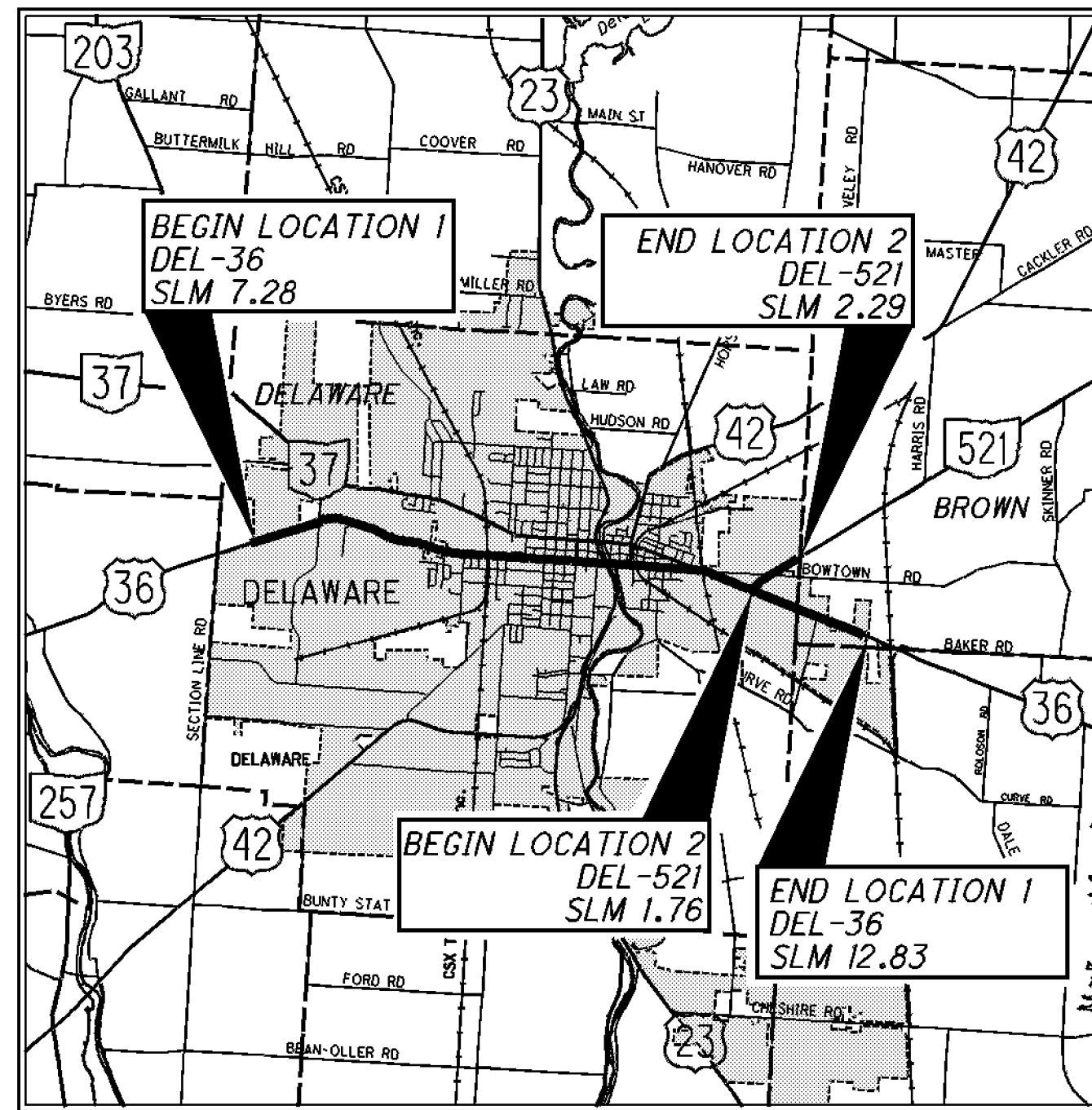
LEGEND:

- PROPOSED BRIDGE/APPROACH TREATMENT
- PROPOSED SIDEWALK TREATMENT

BRIDGE PLAN
DEL-36-1043 (2100878)
3-SPAN STEEL BEAM BRIDGE OVER OLENTANGY RIVER

LOCATION	QUANTITIES				REMARKS
DESCRIPTION	512				
	TREATING OF CONCRETE BRIDGE DECKS WITH SRS				
	SQ YD				
DEL-36-10.43	278				APPROACH SLABS
DEL-36-10.43	1,344				BRIDGE DECK
DEL-36-10.43	323				SIDEWALK
CARRIED TO GENERAL SUMMARY 18/93	1,945				

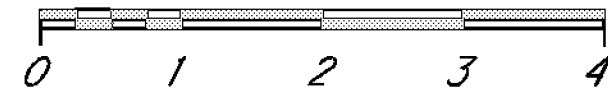
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DEL - 36 - 7.28
DEL - 521 - 1.76
CITY OF DELAWARE
DELAWARE / BROWN TOWNSHIPS
DELAWARE COUNTY



LOCATION MAP

LATITUDE 40° 17' 56" LONGITUDE 83° 04' 10"

SCALE IN MILES



PORTRION TO BE IMPROVED	=====
INTERSTATE & DIVIDED HIGHWAYS	=====
UNDIVIDED STATE & FEDERAL ROUTES	=====
OTHER ROADS	-----

DESIGN DESIGNATION	DEL-36	DEL-521
CURRENT ADT (2012)	22,090	2,880
DESIGN YEAR ADT (2024)	31,495	4,105
DESIGN HOURLY VOLUME (2024)	1,312	171
DIRECTIONAL DISTRIBUTION	50%	50%
TRUCKS (24 HOUR B&C)	15%	6%
DESIGN SPEED	30 TO 60	30 TO 60
LEGAL SPEED	25 TO 55	25 TO 55

DESIGN FUNCTIONAL CLASSIFICATION:
DEL-36: URBAN MINOR ARTERIAL
DEL-521: URBAN COLLECTOR

INDEX OF SHEETS:

TITLE	1
STRAIGHT LINE DIAGRAM	2
TYPICAL SECTIONS	3-5
GENERAL NOTES	6-10
MAINTENANCE OF TRAFFIC GENERAL NOTES	11-16
GENERAL SUMMARY	17-18
PAVEMENT SUB SUMMARIES	19-21
TRAFFIC CONTROL SUB SUMMARIES	22-27
PAVEMENT PLAN VIEWS	28-92
STRUCTURES OVER 20'	93

PROJECT DESCRIPTION

RESURFACING OF 5.55 MI OF US-36 IN DELAWARE COUNTY BEGINNING AT S.L.M. 7.28 AND CONTINUING THROUGH THE CITY OF DELAWARE AND ENDING AT THE DELAWARE CITY (FAR EAST) CORP.

RESURFACING OF 0.53 MI OF SR-521 IN DELAWARE COUNTY BEGINNING AT THE INTERSECTION OF US-36 AND CONTINUING THROUGH THE CITY OF DELAWARE AND ENDING AT THE DELAWARE CITY CORP.

EARTH DISTURBED AREA:

PROJECT EARTH DISTURBED AREA	N/A *
EST. CONTRACTOR EARTH DISTURBED AREA	N/A *
NOTICE OF INTENT EARTH DISTURBED AREA	N/A *

* MAINTENANCE PROJECT

2010 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS PROJECT.

I HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

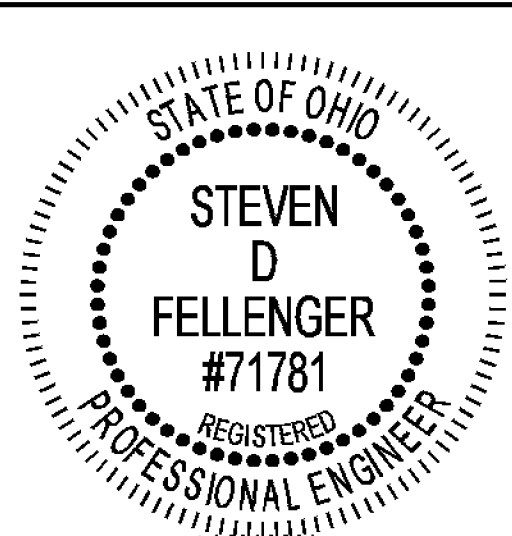
CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: **1-800-925-0988**

PLAN PREPARED BY:

ENGINEERS SEAL:



SIGNED: *Steven D. Felleger*
DATE: 1/13/2012

STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	10/19/07	MT-99.50	10/18/02	800-2010	01/20/12
BP-9.1	04/15/05	MT-101.90	10/21/11	832	05/05/09
MT-35.10	04/20/01	MT-102.20	09/05/06		
MT-95.30	07/17/09	MT-105.10	01/16/09		
MT-95.31	07/17/09	TC-41.20	01/19/01		
MT-95.32	07/17/09	TC-52.10	01/19/07		
MT-95.50	09/05/06	TC-52.20	01/19/07		
MT-97.12	10/15/10	TC-65.10	01/21/05		
MT-98.10	07/17/09	TC-65.11	01/21/05		
MT-98.11	07/17/09	TC-71.10	01/21/11		
MT-98.20	07/17/09	TC-73.10	01/19/01		
MT-98.22	07/17/09	TC-82.10	01/21/11		
MT-98.28	07/17/09				
MT-98.29	07/17/09				
MT-99.20	01/16/09				

PLANS CERTIFIED BY:
NAME: *Robert Kincaid* DATE: 1/13/2012
DISTRICT 6
OHIO DEPT. OF TRANSPORTATION

APPROVED: *[Signature]*
DISTRICT DEPUTY DIRECTOR

DATE 1-13-12

APPROVED: _____
DIRECTOR, DEPARTMENT OF TRANSPORTATION

DATE _____

FEDERAL PROJECT NO. **E100 (759)**
CONSTRUCTION PROJECT NO. **88636**
RAILROAD INVOLVEMENT **CSX TRANSPORTATION INC.**
DEL-36-7.28
DEL-521-1.76
93

NOTIFICATION OF CONSTRUCTION INITIATION

AT LEAST FOURTEEN DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA EMAIL AT d06.pio@dot.state.oh.us AND THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA EMAIL AT d06.mot@dot.state.oh.us OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

GENERAL:

THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF OPERATIONS TO THE ENGINEER (SEE 108.02) AND RECEIVE APPROVAL IN WRITING BEFORE WORK IS STARTED ON THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ALIGNMENT AND PROFILE:

THE WORK PROPOSED BY THIS PROJECT IS FOR THE RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT OF THE EXISTING PAVEMENT WILL NOT BE CHANGED, AND THE PROFILE OF THE PROPOSED SURFACE WILL BE SIMILAR TO THAT OF THE EXISTING PAVEMENT.

CONTRACTORS EQUIPMENT - OPERATION AND STORAGE:

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. EQUIPMENT SHALL HAVE AT LEAST ONE AMBER FLASHING LIGHT. WHEN PARKED ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE LOCATED EITHER A MINIMUM OF THIRTY FEET FROM THE EDGE OF PAVEMENT OR SIX FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT AN APPROVED CONTRACTOR'S STORAGE AREA.

CONTINGENCY QUANTITIES:

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

WORK LIMITS:

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PART-WIDTH CONSTRUCTION:

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

FIRE HYDRANTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS AND FEES THAT ARE REQUIRED FOR THE USE OF ANY FIRE HYDRANTS. A SIAMESE VALVE IS TO BE USED ON THE HYDRANT OUTLET IF A HOSE IS TO BE LEFT CONNECTED AND UNATTENDED.

DRAINAGE AT INTERSECTING STREETS:

AT INTERSECTING STREETS WHERE THE DRAINAGE IS TOWARD OR INTO THE PROJECT, SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO MAINTAIN PROPER GRADE ALONG THE EDGE OF PAVEMENT SO THAT WATER WILL NOT POND. AT INTERSECTING STREETS, WHERE THE EDGE OF PAVEMENT CONTINUES ACROSS THE STREET, CARE SHALL BE TAKEN TO FEATHER DOWN AND FORM A NEAT SEAM WITH THE PROPER GRADE.

FUNDING SPLITS:

STP RURAL PAVING (80% FEDERAL / 20% STATE)
STP URBAN PAVING (80% FEDERAL / 20% LOCAL)
NHS URBAN PAVING (80% FEDERAL / 20% LOCAL)
NHS RURAL PAVING (80% FEDERAL / 20% STATE)
CITY OF DELAWARE (100% LOCAL)

TREES AND OVERHEAD INTERFERENCES:

THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL TREES, OVERHEAD LINES AND TRAFFIC SIGNALS. IN SOME CASES IT MAY BE NECESSARY TO ADJUST EQUIPMENT HEIGHTS TO MAKE CLEARANCE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING VENT STACK DEFLECTORS TO PREVENT DAMAGE TO STREET TREES FROM HOT EXHAUST FROM THE MILLING MACHINES.

LOCAL NOISE ORDINANCE:

IN AN EFFORT TO MINIMIZE NOISE DURING CONSTRUCTION, ALL CONSTRUCTION EQUIPMENT OPERATION MUST CONFORM TO ANY AND ALL PERTINENT LOCAL NOISE ORDINANCES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE IF THERE ARE ANY PERTINENT LOCAL NOISE ORDINANCES, AND, IF THERE ARE ANY, TO ENSURE THAT THEY ARE COMPLIED WITH THROUGHOUT THE CONSTRUCTION OF THIS PROJECT.

PAVING AT RAILROAD CROSSING:

WORK THE CROWN OUT OF THE PROPOSED PAVEMENT ON EACH SIDE OF THE RAILROAD CROSSING, BEGINNING 50 FEET [15 METERS] FROM THE NEAREST RAIL, BY RAISING THE EDGES OF THE NEW PAVEMENT TO MEET THE PLATFORM ELEVATION. THE CONTRACTOR SHALL NOTIFY THE CSX TRANSPORTATION, INC. AT LEAST 15 DAYS IN ADVANCE OF STARTING ANY WORK WHICH MIGHT REQUIRE PROTECTION (FLAGMAN).

EXISTING MAILBOXES AND MAILBOX POSTS:

GREAT CARE SHALL BE TAKEN TO PREVENT DAMAGE TO ANY OF THE EXISTING MAILBOXES OR MAILBOX POSTS DURING THE PAVING OPERATIONS. ANY MAILBOX OR MAILBOX POST WHICH BECOMES DAMAGED BY THE CONTRACTOR'S PAVING OPERATIONS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

REVIEW OF DRAINAGE FACILITIES:

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE OF THE PROJECT BY THE STATE, REPRESENTATIVES OF THE STATE, THE CONTRACTOR, AND THE CITY OF DELAWARE SHALL INSPECT ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED, AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER SHALL CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

DRAIN PIPES:

AT ALL DRAIN PIPES LOCATED IN THE CURB AND THAT DRAIN INTO THE GUTTER, SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR SO THAT THESE DRAINS WILL NOT BE CLOSED OR OTHERWISE RENDERED INOPERATIVE. ANY DAMAGE DONE TO THE DRAIN PIPE WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

MANHOLES AND OTHER CASTINGS:

THE CASTING TOPS OF MANHOLES, VALVE BOXES, AND OTHER STRUCTURES OWNED BY PUBLIC SERVICE CORPORATIONS OTHER THAN THE CITY OF DELAWARE WILL BE ADJUSTED TO GRADE BY THEIR RESPECTIVE OWNERS. THE WORK MAY BE DONE PRIOR TO THE CONSTRUCTION OF THE SURFACE COURSE. THE CONTRACTOR SHALL NOTIFY SUCH PUBLIC SERVICE CORPORATIONS AT LEAST ONE WEEK IN ADVANCE OF WORK OPERATIONS SO THAT WORK MAY BE PROPERLY SCHEDULED. CASTINGS OWNED BY THE CITY OF DELAWARE SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR. THESE MAY INCLUDE SEWER, AND TRAFFIC MANHOLES. HOWEVER, ANY ADDITIONAL CASTINGS IDENTIFIED DURING THE VARIOUS CONSTRUCTION OPERATIONS BY THE CONTRACTOR AND/OR THE PROJECT ENGINEER SHALL BE RAISED BY THE CONTRACTOR AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THAT RESPECTIVE ITEM.

WATER VALVES ON PLANED STREETS:

BEFORE ANY MILLING BEGINS ON A STREET, THE PROJECT ENGINEER WILL IDENTIFY ALL THE WATER VALVE CASTINGS BY MARKING THE CASTINGS OR CREATING A LIST OF THE CASTINGS THAT WILL NEED TO BE ADJUSTED TO GRADE AFTER THE RESURFACING IS COMPLETE, ANY CASTINGS THAT NEED TO BE ADJUSTED TO GRADE THAT WERE NOT IDENTIFIED TO BE RAISED PRIOR TO THE RESURFACING SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE THIS DOES NOT APPLY TO BURIED WATER VALVES.

BURIED WATER VALVES:

THE CITY OF DELAWARE MUST APPROVE IN WRITING ANY BURIED WATER VALVES TO BE ADJUSTED TO GRADE BY THE CONTRACTOR. IF THE CONTRACTOR RAISES ANY BURIED WATER VALVES WITHOUT WRITTEN APPROVAL FROM THE CITY OF DELAWARE THE WORK COMPLETED WILL BE AT THE CONTRACTOR'S EXPENSE.

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ADJUSTING CASTINGS:

THE CONTRACTOR MAY USE AN EXTENSION RING OF THE TYPE APPROVED BY THE CITY OF DELAWARE TO RAISE MANHOLES THESE EXTENSION RINGS SHALL BE SECURED IN PLACE BY ASPHALT MASTIC. PROBLEM SITUATIONS, SUCH AS BROKEN CASTINGS OR CASTINGS FOR WHICH THERE ARE NO RINGS AVAILABLE, WILL BE RESOLVED BY ADJUSTING THE STRUCTURE TO GRADE WITHOUT A RING AFTER THE RESURFACING PROCESS. FOR A CASTING THAT IS ADJUSTED TO GRADE AFTER THE RESURFACING IS COMPLETED, THE CONTRACTOR SHALL REPLACE THE EXISTING ASPHALT SURFACE COURSE WITH 4 INCHES OF PORTLAND CEMENT CONCRETE BASE IN THE EFFECTED AREA. PAYMENT FOR THESE ITEMS IS TO BE INCLUDED IN THE PRICE BID FOR THE RESPECTIVE ITEM 604.

VALVE BOXES:

THE MINIMUM DIMENSION FOR SAW CUTTING THE PROPOSED VALVE BOX IS TWO FEET (WIDTH) BY FOUR FEET (LENGTH) ALL SAW CUTTING NECESSARY TO PERFORM THIS TASK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR THE ITEM NECESSITATING THE WORK. THE PRICE SHALL INCLUDE ALL SERVICES, MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

ALL CASTINGS THAT ARE IN THE PROCESS OF BEING RAISED SHALL BE PLATED OR OTHERWISE BE MADE SUITABLE TO CARRY TRAFFIC DURING NON - WORKING HOURS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO POINT OUT ANY ADDITIONAL MANHOLES AND WATER VALVES TO THE PROJECT ENGINEER THAT ARE OUT OF TOLERANCE PRIOR TO MILLING OR THE COST OF ADJUSTING THESE WILL BE AT THE CONTRACTOR'S EXPENSE.

A TOLERANCE OF MINUS 1/2" WILL BE THE ACCEPTED TOLERANCE ON ALL MANHOLES AND WATER VALVES ADJUSTED TO GRADE PRIOR TO THE RESURFACING PROCESS. A TOLERANCE OF MINUS 1/4" WILL BE THE ACCEPTED TOLERANCE ON ALL MANHOLES AND WATER VALVES ADJUSTED TO GRADE AFTER THE RESURFACING PROCESS AS PART OF THIS CONTRACT.

WATER QUALITY PROTECTION:

NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO ANY STREAMS, DRAINAGE COURSES, OR BODIES OF WATER. ALL ASPHALT OR CONCRETE GRINDINGS, EXCESS ASPHALTIC OR CONCRETE MATERIALS OR ANY OTHER DEBRIS GENERATED DURING RESURFACING OR OTHER SIMILAR ACTIVITIES SHALL BE NOT BE DISPOSED OF WITHIN A FLOOD PLAIN BELOW THE 100-YEAR FLOOD ELEVATION. THE CONTRACTOR SHALL TAKE GREAT CARE AND ALL PRECAUTIONS NECESSARY TO PREVENT THE CONTAMINATION OF THE PUBLIC DRINKING WATER SUPPLY, ALL PROJECT RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER AND ALL PRECAUTIONS NECESSARY TO PREVENT LIQUIDS USED TO REPAIR, CLEAN, SEAL, OR TREAT ANY BRIDGE STRUCTURE (I.E. PAINT, SEALER, SOLVENT) FROM ENTERING STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE. THE CONTRACTOR IS REQUIRED AND SHALL BE HELD RESPONSIBLE FOR THE CLEAN UP AND REMEDIATION OF ANY AND ALL SPILLS.

WATERSHED PROTECTION:

IT IS ESSENTIAL THAT ALL ACTIVITIES ASSOCIATED WITH THIS WORK BE PERFORMED IN A MANNER CONSISTENT WITH BEST WATERSHED MANAGEMENT PRACTICES INCLUDING, BUT NOT LIMITED TOO.

AREAS OF DISTURBED GROUND SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. IF HAZARDOUS/TOXIC MATERIALS INCLUDING BUT NOT LIMITED TO FUELS, OILS, BITUMEN'S PAINTS, SEALANTS, OR OTHER CHEMICALS, ARE STORED ON SITE, THEY SHALL BE STORED IN A DOUBLE-CONTAINMENT MANNER. ALL EQUIPMENT REPAIRS, MAINTENANCE, AND MECHANICAL WORK THAT COULD RESULT IN THE RELEASE OF HAZARDOUS/TOXIC MATERIALS SHALL BE PERFORMED IN AN APPROPRIATELY CONTAINED AREA, PREFERABLY OFF SITE OR AN APPROPRIATE OFF-SITE FACILITY.

IN THE EVENT THAT ANY HAZARDOUS/TOXIC MATERIALS INCLUDING, BUT NOT LIMITED TO FUELS, OILS, BITUMEN'S PAINTS, SEALANTS, OR OTHER CHEMICALS ARE SPILLED INTO OLENTANGY RIVER OR ANY OTHER WATERCOURSES OR ON ANY GROUND SURFACES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY EMERGENCY SERVICES BY CALLING 911, THE OHIO EPA @ (800)282-9378, DEL-CO WATER @ (740)548-7746. THE CONTRACTOR SHOULD BE PREPARED TO PROVIDE DETAILED INFORMATION RELATIVE TO THE TYPE AND QUANTITY OF MATERIAL THAT HAS BEEN SPILLED AS WELL AS THE EXACT LOCATION AND THE EXACT TIME AT WHICH THE SPILL OCCURRED.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INFORMING ALL SUBCONTRACTORS AND OTHER AGENTS OF THESE RESPONSIBILITIES, PRECAUTIONS, AND PROHIBITIONS.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN:

ALL REPAIR AREAS SHALL BE DETERMINED BY THE PROJECT ENGINEER BEFORE THE BEGINNING OF THE PROJECT. ANY WORK, WHICH IS DETERMINED TO BE NECESSARY BY THE PROJECT ENGINEER, SHALL BE PERFORMED AFTER THE PERFORMANCE OF ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE AS PER PLAN AND BEFORE THE PLACEMENT OF ANY ASPHALT CONCRETE SURFACE COURSE. THE REPAIR AREAS SHALL BE OF VARYING LENGTH AND SHALL HAVE AN AVERAGE WIDTH OF NOT LESS THAN 4 FEET. THE AVERAGE DEPTH OF EACH REPAIR SHALL BE 4 INCHES. ALL AREAS SHALL BE REFILLED WITH AN EQUAL AMOUNT OF ITEM 301 - ASPHALT CONCRETE BASE.

NO MORE PARTIAL PAVEMENT REPAIR, AS PER PLAN SHALL BE STARTED AND PERFORMED THAN CAN BE COMPLETED IN THE SAME WORKING DAY AND ALL REPAIRED AREAS ARE TO BE INCLUDED INTO THE GENERAL RESURFACING.

AS DIRECTED BY THE PROJECT ENGINEER = 200 SQ YD

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE:

THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE CONTRACTORS EQUIPMENT THAT MAY RESULT FROM THE PLANING OPERATION, INCLUDING DAMAGE CAUSED BY CASTINGS AND LOOP DETECTORS. THE DEPTH OF PLANING CLOSE TO THE CASTINGS SHALL BE AS DIRECTED IN ORDER TO ACHIEVE A SMOOTH RIDING FINISHED PAVEMENT. GREAT CARE SHALL BE TAKEN TO PREVENT THE REMOVAL OF THE EXISTING PAVEMENT CROSS-SLOPE (CROWN), INTERSECTION CROSS-SLOPES (CROWN) AS WELL AS ALL LONGITUDINAL SLOPES WITHIN THE EXISTING CROSSWALKS DURING THE PLANING OPERATIONS.

THE CONTRACTOR SHALL USE CARE WHEN PLANING AROUND EXISTING MANHOLES WITH CONCRETE COLLAR SO AS TO NOT DAMAGE THE EXISTING CONCRETE COLLAR. SHOULD THE CONCRETE COLLAR BE DAMAGED BY THE PLANING OPERATION THE CONTRACTOR SHALL REPLACE THE CONCRETE COLLAR AT HIS EXPENSE.

ITEM 442 - ASPHALT CONCRETE, SURFACE COURSE, 12.5mm, TYPE A (446), PER PLAN:

THE 442 ASPHALT MIX SHALL REQUIRE A PG76-22M BINDER.

ITEM 603 - CONDUIT, MISC. INTERNAL JOINT SEAL

THE CONTRACTOR WILL REPAIR THE FAILING JOINTS IN THE CONDUIT AT STA. 475+75 USING AN INTERNAL JOINT SEAL. THE INTERNAL JOINT SEAL WILL BRIDGE THE JOINT WITH A FLEXIBLE RUBBER SEAL AND COMPRESS THE RUBBER SEAL AGAINST THE INSIDE DIAMETER OF THE PIPE ON EITHER SIDE OF THE JOINT WITH EXPANSION BANDS AND LOCKING ASSEMBLY.

THE INTERNAL JOINT SEAL WILL MEET THE FOLLOWING REQUIREMENTS:
EPDM RUBBER SEAL: 10" MINIMUM WIDTH
MINIMUM TENSILE STRENGTH 1,000 PSI ASTM D412
STEEL BANDS: 304 OR 316 STAINLESS STEEL
MINIMUM TENSILE STRENGTH 70,000 PSI

THE CONTRACTOR WILL CLEAN AND REMOVE ALL DIRT AND DEBRIS PRIOR TO INSTALLING THE INTERNAL JOINT SEAL A MINIMUM OF 2 FT. ON EITHER SIDE OF THE FAILING JOINT. THE CONTRACTOR WILL FILL THE VOIDS AND JOINT GAPS WITH GROUT UNTIL THE VOIDS ARE FILLED AND THE GAP IS FLUSH FROM ONE SECTION OF PIPE TO THE OTHER. FURNISH GROUT THAT CONTAINS CEMENT AND WATER, AND POSSIBLY ONE OR MORE OF THE FOLLOWING: FLY ASH, LIME, OR ADMIXTURES. THE CONTRACTOR WILL SECURE THE INTERNAL JOINT SEAL FIRMLY AGAINST ALL EDGES OF THE CONCRETE TO PREVENT ANY SOIL INFILTRATION. THE CONTRACTOR WILL NOT BE REQUIRED TO PERFORM A PRESSURE TEST. THE RUBBER SEALS CAN BE SUPPLIED WITHOUT TEST VALVES.

THE CONTRACTOR CAN SUPPLY AN INTERNAL JOINT SEAL FROM: WEKO-SEAL, NPC INTERNAL SEAL, HYDRATITE SEAL OR AN APPROVED EQUAL.

THE INTERNAL JOINT SEAL WILL BE INSTALLED AS NOTED AND PER THE REQUIREMENTS OF THE MANUFACTURER. THE INTERNAL JOINT SEAL, LABOR, EQUIPMENT AND ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK TO BE INCLUDED IN:

ITEM 603 - CONDUIT MISC.: INTERNAL JOINT SEAL = 5 EACH

ITEM 604 - CATCH BASIN ADJUSTED TO GRADE:

THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AND AS REQUESTED BY THE CITY OF DELAWARE AT VARIOUS LOCATIONS AND SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING CATCH BASIN TO THE PROPOSED ASPHALT ELEVATION. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL CARRIED TO THE GENERAL SUMMARY.

"AS DIRECTED BY THE ENGINEER" = 5 EACH

ITEM 604 - CATCH BASIN ADJUSTED TO GRADE: = 5 EACH

ITEM 604 - CATCH BASIN RECONSTRUCTED TO GRADE:

THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AND AS REQUESTED BY THE CITY OF DELAWARE AT VARIOUS LOCATIONS AND SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING CATCH BASIN TO THE PROPOSED ASPHALT ELEVATION. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL CARRIED TO THE GENERAL SUMMARY.

"AS DIRECTED BY THE ENGINEER" = 5 EACH

ITEM 604 - CATCH BASIN RECONSTRUCTED TO GRADE: = 5 EACH

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GENERAL NOTES

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ITEM 604 - INLET RECONSTRUCTED TO GRADE:

THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AND AS REQUESTED BY THE CITY OF DELAWARE AT VARIOUS LOCATIONS AND SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING CATCH BASIN TO THE PROPOSED ASPHALT ELEVATION. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL CARRIED TO THE GENERAL SUMMARY.

"AS DIRECTED BY THE ENGINEER" = 5 EACH
ITEM 604 - INLET RECONSTRUCTED TO GRADE: = 5 EACH

ITEM 604 - MANHOLE RECONSTRUCTED TO GRADE:

THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AT VARIOUS LOCATIONS AND PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING CATCH BASIN TO THE PROPOSED ASPHALT ELEVATION. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL CARRIED TO THE GENERAL SUMMARY.

"AS DIRECTED BY THE ENGINEER" = 5 EACH
ITEM 604 - MANHOLE RECONSTRUCTED TO GRADE: = 5 EACH

ITEM 604 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN:

THE CASTING TOPS OF MANHOLES, VALVE BOXES, AND OTHER STRUCTURES OWNED BY PUBLIC SERVICE CORPORATIONS OTHER THAN THE CITY OF DELAWARE WILL BE ADJUSTED TO GRADE BY THEIR RESPECTIVE OWNERS. THE WORK MAY BE DONE PRIOR TO THE CONSTRUCTION OF THE SURFACE COURSE. THE CONTRACTOR SHALL NOTIFY SUCH PUBLIC SERVICE CORPORATIONS AT LEAST ONE WEEK IN ADVANCE OF WORK OPERATIONS SO THAT WORK MAY BE PROPERLY SCHEDULED. CASTINGS OWNED BY THE CITY OF DELAWARE SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR. THESE INCLUDE SEWER, WATER, AND TRAFFIC MANHOLES. HOWEVER, ANY ADDITIONAL CASTINGS IDENTIFIED DURING THE VARIOUS CONSTRUCTION OPERATIONS BY THE PROJECT ENGINEER AND/OR CONTRACTOR SHALL BE RAISED BY THE CONTRACTOR AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THAT RESPECTIVE ITEM.

CITY MANHOLE REHABILITATION STANDARD

THE CONTRACTOR MAY USE AN EXTENSION RING OF THE TYPE APPROVED BY THE CITY OF DELAWARE TO RAISE MANHOLES THESE EXTENSION RINGS SHALL BE SECURED IN PLACE BY ASPHALT MASTIC. PROBLEM SITUATIONS, SUCH AS BROKEN CASTINGS OR CASTINGS FOR WHICH THERE ARE NO RINGS AVAILABLE, WILL BE RESOLVED BY ADJUSTING THE STRUCTURE TO GRADE WITHOUT A RING AFTER THE RESURFACING PROCESS. FOR A CASTING THAT IS ADJUSTED TO GRADE AFTER THE RESURFACING IS COMPLETED, THE CONTRACTOR SHALL REPLACE THE EXISTING ASPHALT SURFACE COURSE WITH 4 INCHES OF PORTLAND CEMENT CONCRETE BASE IN THE EFFECTED AREA. PAYMENT FOR THESE ITEMS IS TO BE INCLUDED IN THE PRICE BID FOR THE RESPECTIVE ITEM 604.

GREAT CARE SHALL BE TAKEN TO MAINTAIN THE EXISTING PAVEMENT CROSS-SLOPE (CROWN), INTERSECTION CROSS-SLOPES (CROWN) AS WELL AS ALL LONGITUDINAL SLOPES WITHIN THE EXISTING CROSSWALKS. THIS IS ESPECIALLY CRITICAL AT CROSSWALKS.

THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AND AS REQUESTED BY THE CITY OF DELAWARE AT VARIOUS LOCATIONS AND PROVIDE AND PROVIDE A ONE FOOT WIDE AND 4 INCHES IN DEPTH CONCRETE COLLAR AROUND THE EXISTING MANHOLE. ANY ADDITIONAL COST FOR ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING MANHOLE TO THE PROPOSED ASPHALT ELEVATION AND PLACE AN ONE FOOT CONCRETE COLLAR AROUND THE EXISTING MANHOLE.

"AS DIRECTED BY THE ENGINEER" = 5 EACH
ITEM 604 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN: = 5 EACH

ITEM 604 - MONUMENT ASSEMBLY:

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE FOLLOWING INTERSECTIONS.

A REGISTERED SURVEYOR FROM DISTRICT 6 SURVEY DEPARTMENT SHALL BE RESPONSIBLE FOR REFERENCING AND VERIFYING THE LOCATIONS OF THE CENTERLINE MONUMENTS. THE CONTRACTOR SHALL NOTIFY THE SURVEY DEPARTMENT (740-833-8250) 48 HOURS PRIOR TO START OF MONUMENT WORK. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL NECESSARY LABOR, MISCELLANEOUS HARDWARE, AND EQUIPMENT REQUIRED FOR PLACEMENT. PAYMENT WILL BE AT CONTRACT BID PRICE PER EACH.

ITEM 604 - MONUMENT ASSEMBLY: = 2 EACH

ITEM 604 - MONUMENT BOX ADJUSTED TO GRADE:

THIS ITEM OF WORK WILL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING MONUMENT BOX TO 1/4 INCH BELOW THE PROPOSED ASPHALT ELEVATION AT THE FOLLOWING LOCATIONS.

BOWTOWN RD AND DEL-521 = 2 EACH

ITEM 617 - COMPACTED AGGREGATE:

THIS ITEM HAS BEEN PROVIDED TO ASSURE THAT THERE IS NO DROP-OFF AND SHALL BE USED AS DIRECTED BY THE PROJECT ENGINEER.

ITEM 617 - WATER:

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS DIRECTED BY THE PROJECT ENGINEER.

STP RURAL PAVING (80% FEDERAL / 20% STATE) = 0.25 M/GAL.
STP URBAN PAVING (80% FEDERAL / 20% LOCAL) = 0.25 M/GAL.
NHS URBAN PAVING (80% FEDERAL / 20% LOCAL) = 1 M/GAL.
NHS RURAL PAVING (80% FEDERAL / 20% STATE) = 0.5 M/GAL.
ITEM 617 - WATER: = 2 M/GAL.

ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN:

THIS ITEM SHALL CONSIST OF STATIONING USING 3 FT LATH STAKES OR PAINT MARKINGS. THE STAKES OR PAINT MARKINGS SHALL BE SPACED AT 200 FT INTERVALS AND EXTEND THROUGHOUT THE LENGTH OF THE PROJECT. PLACEMENT OF THE STAKES OR PAINT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED, MISSING STAKES, OR PAINT MARKINGS. PAINT MARKINGS SHALL BE PLACED ON CURBS AND USED IN AREAS WERE THE PLACEMENT OF STAKES IS NOT POSSIBLE AND APPROVED BY THE PROJECT ENGINEER.

CONSTRUCTION LAYOUT STAKES, AS PER PLAN WILL BE PAID FOR AT THE CONTRACT LUMP SUM BID, WHICH PRICE SHALL BE FULL COMPENSATION FOR ALL SERVICES, MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS, INCLUDING THE REMOVAL, NECESSARY TO COMPLETE THIS ITEM.

ITEM 632 - LOOP DETECTOR TIE IN:

THIS ITEM SHALL BE USED TO CONNECT AND SPLICE THE PROPOSED LOOP DETECTORS TO THE APPROPRIATE EXISTING LEAD IN CABLE INSIDE THE PULL BOX.

ITEM 632 - DETECTOR LOOP, AS PER PLAN:

THE LOCATIONS, SIZES AND SHAPES OF PROPOSED LOOP DETECTORS WILL BE THE SAME AS EXISTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THE EXISTING LOOP DETECTORS LISTED IN THE PLAN BEFORE THE PAVEMENT PLANING DESTROYS THEM. ALL LOOP WIRE SHALL BE IDENTIFIED WITH A PLASTIC TAG (WBLT, EBRT, ETC.) AT THE SPLICE POINT OR AT ENTRANCE TO THE CONTROL CABINET. WHEN A PULLBOX IS NOT USED, THE SOLDERED SPLICE SHALL BE MADE IN AN ANCHOR BASE, STRAIN POLE OR A CONDUIT RISER SPECIFIED BY THE PROJECT ENGINEER, EXCEPT WHERE A CONTROLLER CABINET IS MOUNTED ON THAT POLE IN WHICH CASE THE LOOP WIRE SHALL BE ROUTED DIRECTLY INTO THE CABINET. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER PRIOR TO THE COMMENCEMENT OF WORK, A COPY OF THE IMSA CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT. ALL DETECTOR LOOPS SHALL BE REPLACED AND FUNCTIONAL WITHIN 48 HOURS OF BEING REMOVED. THE CONTRACTOR SHALL ALSO PROTECT ANY INLET OR CATCH BASIN FROM FOREIGN MATERIAL OR CONSTRUCTION DEBRIS ENTERING THE INLET OR CATCH BASIN WHILE CUTTING DETECTOR LOOPS.

ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHOWN IN THE PLANS SHALL BE THE POWERHEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS CURRENTLY CALLED FOR IN THE PLANS. THE STOP LINE DETECTOR LOOPS SHALL NOT BE WIRED TO ANY OTHER LOOPS AND SHALL HAVE ITS OWN DETECTOR CHANNEL. THE LOCATION OF THESE LOOPS SHALL BE SUCH THAT THE POWERHEAD IS LOCATED AT THE STOP LINE, NOT PAST IT.

ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10.

ALL STOP LINE DETECTION SHALL BE TESTED FOR A BICYCLE TARGET AND ALL DILEMMA DETECTION ZONES SHALL BE TESTED FOR A MOTORCYCLE TARGET.

CITY OF DELAWARE
PUBLIC WORKS - CUSTOMER SERVICE
1-740-203-1810

OHIO DEPARTMENT OF TRANSPORTATION
400 EAST WILLIAM STREET
DELAWARE, OHIO 43015
1-740-833-8332

ITEM 644 - THERMOPLASTIC PAVEMENT MARKING:

ITEM 646 - EPOXY PAVEMENT MARKING:

THE CONTRACTOR SHALL REMOVE PRIOR TO THE PLACEMENT OF ALL PERMANENT PAVEMENT MARKINGS ALL WORK ZONE MARKINGS. THE LOCATIONS, SIZES AND SHAPES OF PROPOSED PAVEMENT MARKINGS WILL BE THE SAME AS EXISTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THE EXISTING PAVEMENT MARKINGS BEFORE THE PAVEMENT PLANING AND RESURFACING OBLITERATES THEM.

PRIOR TO THE PLACEMENT OF ALL PERMANENT PAVEMENT MARKINGS THE CONTRACTOR SHALL NOTIFY THE CITY OF DELAWARE ENGINEER A MINIMUM OF SEVENTY-TWO HOURS (NOT INCLUDING SATURDAY AND SUNDAY) BEFORE PERMANENT MARKINGS ARE TO BE PLACED TO INSPECT AND APPROVE THE PERMANENT PAVEMENT-MARKING LAYOUT.

ANY PAVEMENT MARKING WHICH IS PLACED AT THE WRONG LOCATION SHALL BE REMOVED AND REPLACED AT THE CORRECT LOCATION AT THE CONTRACTORS EXPENSE.

CALCULATED
CHECKED

GENERAL NOTES

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ITEM 644 - LANE LINE, AS PER PLAN:

ITEM 646 - LANE LINE, AS PER PLAN:

ALL LANE LINE MARKINGS SHALL HAVE A 5" WIDTH.

ITEM 644 - CROSSWALK, AS PER PLAN

ITEM 646 - CROSSWALK, AS PER PLAN

THE 24" WHITE LONGITUDINAL LINES SHALL BE PLACED PARALLEL TO THE DIRECTION OF TRAFFIC FLOW. THE PLACEMENT OF 24" WHITE LONGITUDINAL LINES SHALL AVOID THE TRAFFIC WHEEL PATHS.

ITEM 644 - REMOVAL OF PAVEMENT MARKING:

REMOVE THE EXISTING PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 800. DO NOT OVER PAINT OR USE OTHER METHODS OF COVERING MARKINGS INSTEAD OF REMOVAL.

ITEM 690 - SPECIAL-MISC.: TRACKLESS TACK COAT

DESCRIPTION: THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH A SPECIALIZED ANIONIC TRACKLESS ASPHALT EMULSION. MEET ALL REQUIREMENTS OF ODOT 407 TACK COAT SPECIFICATION IN THE CMS EXCEPT AS NOTED BELOW.

MATERIAL: CONFORM TO THE FOLLOWING TYPICAL PHYSICAL PROPERTIES:

PARAMETER	TEST METHOD	MIN.	MAX.
SAYBOLT FUROL VISCOSITY, SFS @ 25°C	ASTM D88	15	100
STORAGE STABILITY, 24 HRS, %	ASTM D244	--	1
STORAGE STABILITY, 5 DAYS, %	ASTM D244	--	5
RESIDUE BY DISTILLATION, %	ASTM D244	50	--
OIL DISTILLATE, %	ASTM D244	--	1
SIEVE TEST, %	ASTM D244	--	0.3
TEST ON RESIDUE			
PENETRATION, @ 25°C,	ASTM D5	--	20
SOFTENING POINT RANGE DEG C	ASTM D36	65	--
SOLUBILITY, %	ASTM D2042	97.5	--
ORIGINAL BINDER DSR@82°C G*/SIN δ,10 RAD/SEC	AASHTO T111	1	--

NOTE: PRODUCT SHOULD NOT CONTAIN FILLER SUCH AS CLAY, ETC

SUPPLY CERTIFIED TEST DATA FROM AN INDEPENDENT LABORATORY TO THE ENGINEER AND TO THE DISTRICT LABORATORY SHOWING THE MATERIAL SUPPLIED WAS TESTED FOR AND MEETS THE ABOVE PROPERTIES.

EQUIPMENT:

ALL REQUIREMENTS OF 407.03 SHALL APPLY. SEE MANUFACTURER'S REPRESENTATIVE FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF CATIONIC EMULSION WAS PREVIOUSLY USED.

WEATHER LIMITATIONS:

ALL REQUIREMENTS OF 407.04 SHALL APPLY.

PREPARATION OF SURFACE:

ALL REQUIREMENTS OF 407.05 SHALL APPLY.

APPLICATION OF ASPHALT MATERIAL:

UNIFORMLY APPLY THE ASPHALT MATERIAL WITH A DISTRIBUTOR. IF PRODUCT IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL.

ALL NOZZLES AND SPRAY PATTERNS SHALL BE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. THE ANGLE OF THE NOZZLE SHOULD BE PLACED AT A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE, AND DISTRIBUTOR AND NOZZLE SETTINGS.

APPLY AT A RATE OF 0.04 TO 0.08 GALLONS PER SQUARE YARD. RECOMMENDED APPLICATION TEMPERATURE IS 160°F TO 180° F. DO NOT EXCEED 180°F.

FOR IRREGULAR AREAS SUCH AS DRIVEWAYS AND INTERSECTIONS, APPLY THE ASPHALT MATERIAL USING A METHOD THE ENGINEER APPROVES. APPLY THE TACK COAT IN A MANNER THAT OFFERS THE LEAST INCONVENIENCE TO TRAFFIC AND THAT ALLOWS ONE-WAY TRAFFIC WITHOUT PICKUP OR TRACKING. ONLY APPLY THE TACK COAT TO AREAS THAT WILL BE COVERED BY A PAVEMENT COURSE DURING THE SAME DAY.

THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE WILL APPROVE THE QUANTITY, RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

THE APPLICATION IS CONSIDERED SATISFACTORY WHEN THE MATERIAL IS APPLIED UNIFORMLY WITH NO VISIBLE EVIDENCE OF STREAKING OR RIDGING.

METHOD OF MEASUREMENT: AS PER 407.08.

BASIS OF PAYMENT: AS PER 407.09. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS FOLLOWS:

ITEM	UNIT	DESCRIPTION
690	GALLON	SPECIAL-MISC.: TRACKLESS TACK COAT
690	GALLON	SPECIAL-MISC.: TRACKLESS TACK COAT FOR INTERMEDIATE COURSE

CALCULATED

CHECKED

GENERAL NOTES

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SHEET NUMBER						FUNDING SPLITS					ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET	
						(STP) RURAL 80% FED. 20% STATE	(STP) URBAN 80% FED. 20% LOCAL	(NHS) URBAN 80% FED. 20% LOCAL	(NHS) RURAL 80% FED. 20% STATE	LOCAL 100% LOCAL							
6-10	11-16	19-21	22-27	93													
		155					155				202	32001	155	FT	ROADWAY CURB REMOVED, AS PER PLAN		
		31					50				203	10000	50	CU YD	EXCAVATION		
		89					140				204	10000	140	SQ YD	SUBGRADE COMPACTION		
2							1		1		604	38500	2	EACH	MONUMENT ASSEMBLY		
2							1		1		604	39500	2	EACH	MONUMENT BOX ADJUSTED TO GRADE		
							250	250	250	250	832	30000	1,000	EACH	EROSION CONTROL EROSION CONTROL		
5							5				603	98100	5	EACH	DRAINAGE CONDUIT, MISC.: INTERNAL JOINT SEAL	7/93	
200							50		50	100	251	01001	200	SQ YD	PAVEMENT PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN	7/93	
		186,245					15,742	75,978	72,099	20,068	2,358	254	01000	186,245	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
		15					15				301	46000	15	CU YD	ASPHALT CONCRETE BASE, PG64-22		
		15					15				304	20000	15	CU YD	AGGREGATE BASE		
							7,772	3,177	3,005	837	98	442	10001	7,772	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN	7/93
2							12	44	179	76		617	10100	311	CU YD	COMPACTED AGGREGATE	
							0.25	0.25	1.00	0.50		617	25000	2	M GAL	WATER	
		13,789					1,180	5,697	5,407	1,505		SPECIAL	69098900	13,789	SQ YD	MISC.: TRACKLESS TACK COAT	9/93
		163						45		118		SPECIAL	69098900	163	SQ YD	MISC.: TRACKLESS TACK COAT FOR INTERMEDIATE COAT	9/93

CALCULATED
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GENERAL SUMMARY

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STP RURAL 80% FEDERAL / 20% STATE FUNDING

SHEET #	254	442	617	690	632	632												
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN												
	SQ YD	CU YD	CU YD	SQ YD	EACH	EACH												
28/93	609	25	3	46														
29/93	1,987	83	9	149	1	1												
30/93	2,898	121		217	3	3												
33/93	2,573	107		193														
34/93	3,791	158		284	2	2												
46/93	2,121	88		159														
47/93	1,763	73		132														
CARRIED TO																		
21/93	15,742	655	12	1,180	6	6												

STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	254	442	690	632	632													
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	TRACKLESS TACK COAT	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN													
	SQ YD	CU YD	SQ YD	EACH	EACH													
31/93	2,671	111	200	3	3													
32/93	2,795	116	210	3	3													
35/93	3,202	133	240	2	2													
36/93	2,392	100	179															
37/93	2,222	93	167															
38/93	2,267	94	170															
39/93	2,929	122	220	1	1													
40/93	2,796	117	210	2	2													
41/93	2,723	113	204	1	1													
42/93	2,615	109	196															
43/93	3,157	131	237	2	2													
44/93	3,247	135	243	2	2													
45/93	2,361	99	177															
48/93	1,778	74	133															
49/93	1,778	74	133															
50/93	1,742	73	130															
51/93	2,111	88	158															
52/93	2,070	86	155															
53/93	2,123	88	159															
54/93	2,123	89	159															
CARRIED TO																		
21/93	49,102	2,045	3,680	16	16													

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STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	254	442	617	690	690	202	203	204	304	301	632	632	630	630	630	630	630	630
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT	TRACKLESS TACK COAT FOR INTERMEDIATE COURSE	CURB REMOVED	EXCAVATION	SUBGRADE COMPACTION	AGGREGATE BASE (6" DEPTH)	ASPHALT CONCRETE PG64-22 (6" DEPTH)	DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN	GROUND MOUNTED SUPPORT #3 POST	SIGN POST REFLECTOR	SIGN FLAT SHEET	REMOVAL GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL GROUND MOUNTED SIGN REERECTION
	SQ YD	CU YD	CU YD	SQ YD	GAL	FT	CU YD	SQ YD	CU YD	CU YD	EACH	EACH	FT	EACH	SQ FT	EACH	EACH	EACH
55/93	2,295	96		172							4	4						
56/93	2,777	116		208							5	5						
57/93	2,614	116		196														
58/93	3,296	138		247							1	1						
59/93	3,717	155		279														
86/93	2,929	122	3	220							3	3						
87/93	2,440	101	10	183														
88/93		4			45	155	31	89	15	15			98	4	36	5	7	5
89/93	2,545	106	10	191														
90/93	1,962	82	9	148														
91/93	1,822	76	9	137														
92/93	479	20	3	36														
CARRIED																		
TO																		
21/93	26,876	1,132	44	2,017	45	155	31	89	15	15	13	13	98	4	36	5	7	5

NHS URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	254	442	617	690		632	632												
	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN (1.5" SURFACE)	COMPACTED AGGREGATE (1.5")	TRACKLESS TACK COAT		DETECTOR LOOP, AS PER PLAN	LOOP DETECTOR TIE IN												
	SQ YD	CU YD	CU YD	SQ YD		EACH	EACH												
60/93	959	40		72															
61/93	2,638	110		198		1	1												
62/93	1,766	74		132															
63/93	1,667	69		125															
64/93	1,716	72		129															
65/93	1,667	69		125															
66/93	1,656	69		124															
67/93	1,854	77		139		1	1												
68/93	2,475	103		186		1	1												
69/93	2,889	120		217															
70/93	3,140	131	7	235															
71/93	4,167	174	19	313															
72/93	4,267	178	18	320		2	2												
73/93	6,869	286	9	515		2	2												
74/93	5,373	224	17	403		2	2												
75/93	4,470	186	19	335		2	2												
76/93	5,412	226	19	406		2	2												
77/93	5,847	244	14	438		3	3												
78/93	4,627	193	19	347		2	2												
79/93	4,281	178	19	321															
80/93	4,359	182	19	327															
CARRIED																			
TO																			
21/93	72,099	3,005	179	5,407		18	18												

PAVEMENT SUB SUMMARY

DEL-36-7.28
DEL-521-1.76

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93

CALCULATED BY: _____
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STP URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	644		644		644		644		644		644		644		644		644	
	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	LANE ARROW, THROUGH	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"		
	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH		
55/93				0.14		398			82	207			3		2	2		
56/93				0.09		200	78	277					2		2	2		
57/93				0.09		260	61	152					4			2		
58/93			0.15	0.09		210	76	142				1	4			2		
59/93			0.11	0.09		190	37	140				1	4			1		
86/93	0.13			0.13		685				85			3	2	3	4		
87/93	0.19			0.14		241	28		171	59			1	1	1			
89/93	0.20			0.18		540	29		241	74			1	1		2		
90/93	0.19			0.18		80				182			1	1		2		
91/93	0.19			0.18						133								
92/93																		
CARRIED TO	0.90		0.26	1.31		2,804	309	711	1,234			2		35		17		

NHS URBAN 80% FEDERAL / 20% LOCAL FUNDING

SHEET #	644		644		644		644		644		644		644		644		646		646	
	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	LANE ARROW, THROUGH	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"	LANE LINE	CENTER LINE (DOUBLE SOLID)	STOP LINE	
	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	FT	
60/93			0.19	0.09													0.08	0.08	25	
61/93			0.11	0.09		190	23						2			1				
62/93				0.09			17													
63/93				0.09								1				1				
64/93				0.09			30	227												
65/93				0.09								1				1				
66/93				0.09																
67/93				0.17			25	62		90			1	1						
68/93				0.16		356			196	214			1	1		1				
69/93	0.15		0.05	0.09		370			70	31			3			1				
70/93	0.19	0.13	0.09	0.04		270							3			1				
71/93	0.19	0.18	0.09			90							2							
72/93	0.19	0.19	0.17			98			118				1							
73/93	0.18	0.13	0.13			1,014	160	246	256				3		3	2				
74/93	0.19	0.19	0.19			1,105			145				2		4	3				
75/93	0.16	0.16	0.19			283			64						2					
76/93	0.19	0.18	0.18												3	1				
77/93	0.19	0.14	0.14			973	51		293				3			1				
78/93	0.16	0.19	0.19			240							2		2	1				
79/93	0.19	0.17	0.19																	
80/93	0.19	0.19	0.19			35							1							
81/93	0.19	0.19	0.19																	
CARRIED TO	4.40		2.29	1.09		5,024	306	535	1,477			2		40		14	0.08	0.08	25	

CALCULATED FOR: 23
 CHECKED BY: 93
PAVEMENT MARKING SUB SUMMARY
DEL-36-7.28
DEL-521-1.76

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NHS RURAL 80% FEDERAL / 20% STATE FUNDING

SHEET #	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644			
	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (PASS / NO PASS)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE, WHITE	TRANSVERSE/DIAGONAL LINE, YELLOW	RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT	LANE ARROW, THROUGH	LANE ARROW, RIGHT	WORD ON PAVEMENT, 72", "ONLY"		
	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH		
81	0.19	0.19	0.19															
82	0.19	0.19	0.19															
83	0.19	0.19	0.19			360									2			
84	0.19	0.14	0.15			979	78		187				1		1	2		
85	0.06	0.06	0.06			90			123				1					
CARRIED TO	1.59		0.78			1,429	78		310					5		2		

PAVEMENT MARKING SUB SUMMARY

SHEET #	644	644	644	644	644	644	644	644	644	644	644	644	644	644	644	646	646	646
	EDGE LINE		LANE LINE	CENTER LINE		CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE		RAILROAD SYMBOL MARKING	SCHOOL SYMBOL MARKING, 72"	LANE ARROW, LEFT		WORD ON PAVEMENT, 72", "ONLY"	LANE LINE	CENTER LINE (DOUBLE SOLID)	STOP LINE
	MILE		MILE	MILE		FT	FT	FT	FT		EACH	EACH	EACH		EACH	MILE	MILE	FT
22	2.70			3.33		3,350	306	715	2,571		2		46		21			
23	5.30		2.55	2.40		7,828	615	1,246	2,711			4	75		31	0.08	0.08	25
24	1.59		0.78			1,429	78		310				5		2			
CARRIED TO	9.59		3.33	5.73		12,607	999	1,961	5,592		2	4	126		54	0.08	0.08	25

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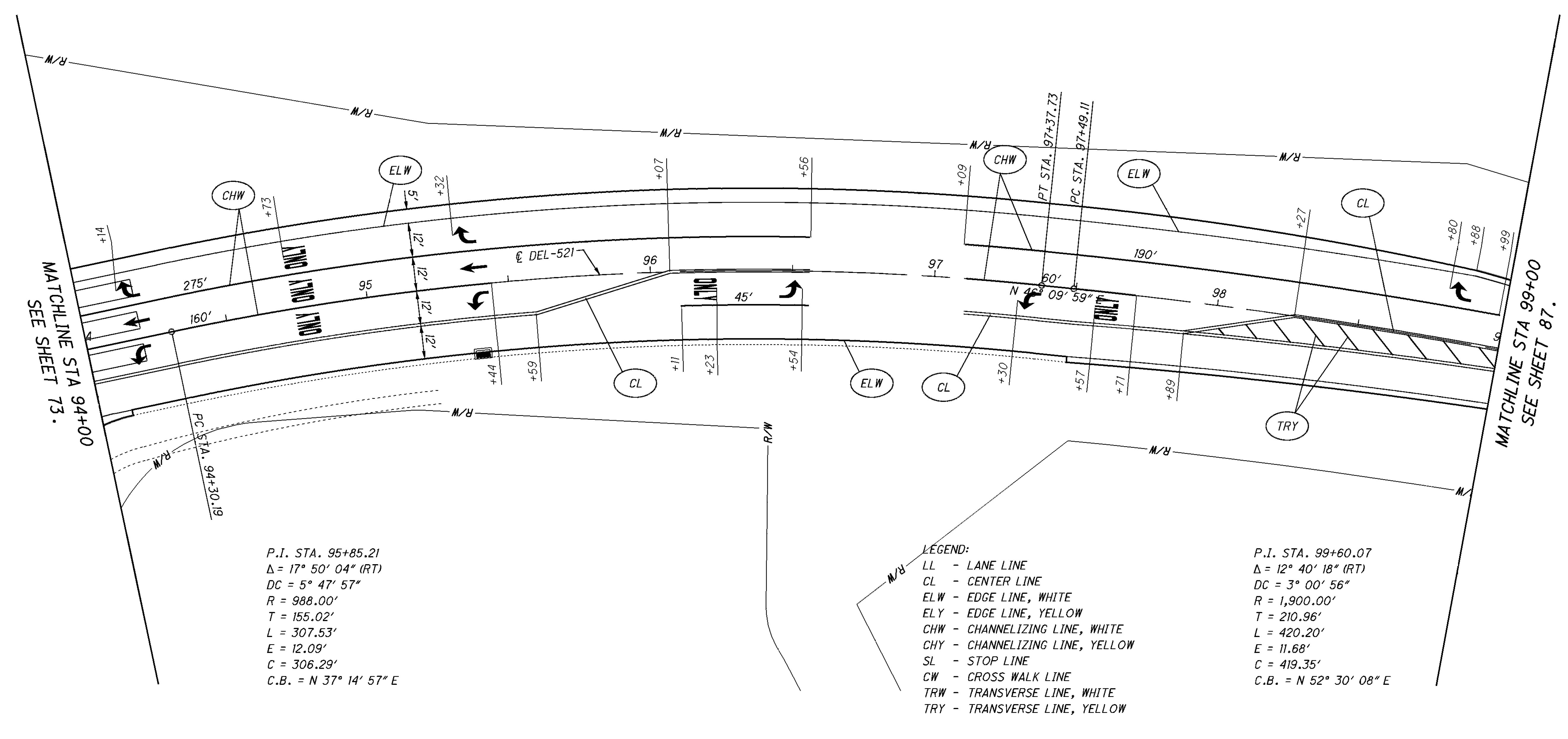
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PAVEMENT MARKING SUB SUMMARY

DEL-36-7.28
DEL-521-1.76

24
93

I:\Projects\del\036\0728.013\88636\production\roadway\ssbets\REDANIES\DEL-521.dgn Sheet 6 of 6 CP 201 07-FEB-2012 4:00 PM rkins@hnsell



P.I. STA. 95+85.21
 $\Delta = 17^\circ 50' 04''$ (RT)
 $DC = 5^\circ 47' 57''$
 $R = 988.00'$
 $T = 155.02'$
 $L = 307.53'$
 $E = 12.09'$
 $C = 306.29'$
 $C.B. = N 37^\circ 14' 57'' E$

LEGEND:
 LL - LANE LINE
 CL - CENTER LINE
 ELW - EDGE LINE, WHITE
 ELY - EDGE LINE, YELLOW
 CHW - CHANNELIZING LINE, WHITE
 CHY - CHANNELIZING LINE, YELLOW
 SL - STOP LINE
 CW - CROSS WALK LINE
 TRW - TRANSVERSE LINE, WHITE
 TRY - TRANSVERSE LINE, YELLOW

P.I. STA. 99+60.07
 $\Delta = 12^\circ 40' 18''$ (RT)
 $DC = 3^\circ 00' 56''$
 $R = 1,900.00'$
 $T = 210.96'$
 $L = 420.20'$
 $E = 11.68'$
 $C = 419.35'$
 $C.B. = N 52^\circ 30' 08'' E$

REF. NO.	BEGIN STATION	END STATION	TYPICAL		254	442	617	690	632	632	644	644	644	644	644	644	644	644	REMARKS
			AVG. PAVEMENT	AND SHOULDER WIDTH															
SR-521	94+00.00	97+49.11	5	53'	2,063	86		155	3	3									
SR-521	97+49.11	99+00.00	6	52'	866	36	3	65											
SR-521	94+00.00	99+00.00									0.13	0.13	685	85	3	2	3	4	PAVEMENT MARKING
TOTALS CARRIED TO 20/93 & 23/93					2,929	122	3	220	3	3	0.13	0.13	685	85	3	2	3	4	

CALCULATED 0 20 40
 CHECKED
 HORIZONTAL SCALE IN FEET

PAVEMENT PLAN DEL-521
 STA 94+00 TO STA 99+00

DEL-36-7.28
 DEL-521-1.76

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