

PAVEMENT

ITEM 304 - AGGREGATE BASE, AS PER PLAN "A"

THIS ITEM SHALL CONFORM TO ITEM 304 WITH THE EXCEPTION THAT THE AGGREGATE SHALL BE LIMESTONE AND MEET THE FOLLOWING GRADATIONS: PAVEMENT SUBBASE SHALL BE ITEM 304. NO RECYCLED MATERIALS WILL BE PERMITTED.

ITEM 304 - AGGREGATE BASE, AS PER PLAN "B"

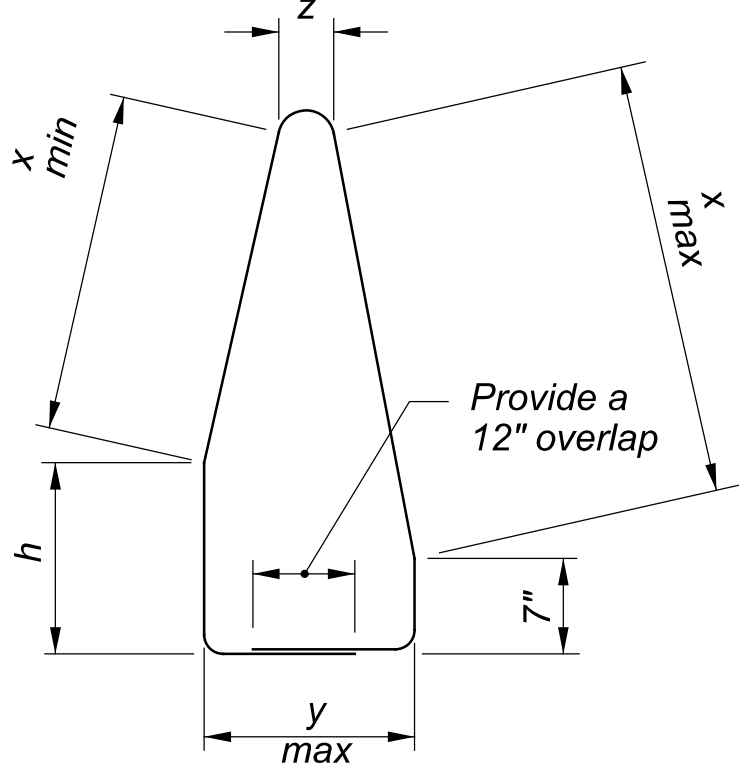
THIS ITEM SHALL CONFORM TO ITEM 304 WITH THE EXCEPTION THAT THE AGGREGATE SHALL BE LIMESTONE AND MEET THE FOLLOWING GRADATIONS: SIDEWALKS, DRIVEWAYS AND MULTI-USE PATHS SHALL BE #57. NO RECYCLED MATERIALS WILL BE PERMITTED.

ITEM 609 - 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN

THIS ITEM SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 609 WITH THE ADDITION OF 1" THICK CMS 705.03 PREFORMED FILLER AT THE INTERFACE OF THE EXISTING BRIDGE PIERS AND ITEM 609 - 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN.

ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1

CUY-422 END ANCHORAGES			
STATION	LENGTH (FEET)	"h" (INCH)	"y" (INCH)
268+12.47	15.00	29.37	33.94
268+27.47		29.42	33.95



Y401 #4

DRAINAGE

ROTATE MANHOLE COVERS

THE CONTRACTOR SHALL ROTATE/ORIENT THE MANHOLE RISER SO THAT THE COVER IS IN THE SHOULDER AT THE FOLLOWING STRUCTURES:

D-18 AND D-63

THE CONTRACTOR SHALL ROTATE/ORIENT THE MANHOLE RISER SO THAT THE COVER IS OUTSIDE THE LIMIT OF THE DUAL-USE PATH AT THE FOLLOWING STRUCTURES:

D-18, D-54, D-56 AND D-60

QUANTITIES CARRIED TO GENERAL NOTES SUBSUMMARY ON SHEET 26

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. THE CONRACTOR IS RESPONSIBLE TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. FURNISH MATERIALS PER ITEM 611 WITH PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER.

SPECIAL, MISCELLANEOUS METAL 500 POUNDS

REPLACE CASTINGS DAMAGED BY THE CONTRACTOR NEGLIGENCE, AS DETERMINED BY THE ENGINEER, AT THE EXPENSE OF THE CONTRACTOR.

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE STATE, CONTRACTOR, AND LOCAL REPRESENTATIVES OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE STATE.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDON RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ITEM 611 - CATCH BASIN, MISC.: CITY OF SOLON STANDARD 2-2B CATCH BASIN (ST-6B)

CATCH BASINS DESIGNATED UNDER THIS ITEM SHALL BE IN ACCORDANCE WITH CITY OF SOLON STANDARD CONSTRUCTION DRAWING ST-6B, AS SHOWN ON SHEET 370 .

ALL LABOR, TOOLS, EQUIPMENT, MATERIALS AND INCIDENTALS INCLUDING EXCAVATION AND BACKFILL USING CRUSHED LIMESTONE SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 611 - CATCH BASIN, MISC.: CITY OF SOLON STANDARD CATCH BASIN (ST-6B).

ITEM 611 - " CONDUIT, TYPE , AS PER PLAN, 707.65

THIS ITEM SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 611 AND ODOT CMS 707.65 WITH ALL PIPES FROM 30" TO 60" DIAMETERS TO BE TRIPLE WALL PIPE.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED FOR THE WORK NOTED ABOVE:

601, TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	8 SQ. YD.
611, 6" CONDUIT, TYPE F	40 FT.
611, PRECAST REINFORCED CONCRETE OUTLET	4 EACH
605, 6" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN	40 FT.

UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

611, 6" CONDUIT, TYPE B, FOR DRAINAGE CONNECTION	200 FT.
611, 6" CONDUIT, TYPE C, FOR DRAINAGE CONNECTION	200 FT.
611, 6" CONDUIT, TYPE E, FOR DRAINAGE CONNECTION	200 FT.
611, 6" CONDUIT, TYPE F, FOR DRAINAGE CONNECTION	200 FT.

ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS, AS PER PLAN
ITEM 605 - 6" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN
ITEM 605 - 6" BASE PIPE UNDERDRAINS, AS PER PLAN

THIS ITEM SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 605 WITH THE EXCEPTION THAT CONDUIT MATERIAL SHALL CONFORM TO CMS 707.41 AND BACKFILL CONFORM TO CMS 703.01.

ITEM 611 - MANHOLE, NO. 3, AS PER PLAN

MANHOLES UNDER THIS ITEM HAVE A BASE LARGER THAN 60" AND ARE NOT ADDRESSED IN THE CITY OF SOLON STANDARD CONSTRUCTION DRAWINGS. THUS THIS ITEM SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CITY OF SOLON STANDARD CONSTRUCTION DRAWING ST-3 EXCEPT THAT THE MANHOLE BASE SIZE AND TRANSITION FOLLOW ODOT ITEM 611 AND STANDARD CONSTRUCTION DRAWING MH-3. IN ADDITION, A SLOTTED ROUND GRATE SHALL BE INSTALLED WHERE NOTED IN THE PLANS AND SHALL BE EAST JORDAN GRATE 1251M OR GRATE 1450M OR APPROVED EQUIVALENT.

ITEM 611 - CATCH BASIN, MISC.: CITY OF SOLON STANDARD VERTICAL CURB INLET (ST-5B)

CATCH BASINS DESIGNATED UNDER THIS ITEM SHALL BE IN ACCORDANCE WITH CITY OF SOLON STANDARD CONSTRUCTION DRAWING ST-5B, AS SHOWN ON SHEET 370 . OFFSETS LISTED IN PLANS ARE TO FACE OF CURB.

SEE ITEM SPECIAL - UTILITY COORDINATION AND RELOCATION FOR ADDITIONAL COORDINATION REQUIREMENTS WITH CEI FIRST ENERGY FOR THE CONSTRUCTION OF THE PROPOSED STORM SEWER FROM STA. 61+31 TO STA. 71+03.

ALL LABOR, TOOLS, EQUIPMENT, MATERIALS AND INCIDENTALS INCLUDING EXCAVATION AND BACKFILL USING CRUSHED LIMESTONE SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 611 - CATCH BASIN, MISC.: CITY OF SOLON STANDARD VERTICAL CURB INLET (ST-5B).

ITEM 611 - MANHOLE, MISC.: CITY OF SOLON STANDARD MANHOLE, TYPE "C" (ST-3)

MANHOLES DESIGNATED UNDER THIS ITEM SHALL BE IN ACCORDANCE WITH CITY OF SOLON STANDARD CONSTRUCTION DRAWING ST-3, AS SHOWN ON SHEET 370 .

SEE ITEM SPECIAL - UTILITY COORDINATION AND RELOCATION FOR ADDITIONAL COORDINATION REQUIREMENTS WITH CEI FIRST ENERGY FOR THE CONSTRUCTION OF THE PROPOSED STORM SEWER FROM STA. 61+31 TO STA. 71+03.

ALL LABOR, TOOLS, EQUIPMENT, MATERIALS AND INCIDENTALS INCLUDING EXCAVATION AND BACKFILL USING CRUSHED LIMESTONE SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 611 - MANHOLE, MISC.: CITY OF SOLON STANDARD MANHOLE, TYPE "C" (ST-3).

ITEM 611 - CATCH BASIN, NO. 6, AS PER PLAN

THIS ITEM SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 611 AND STANDARD CONSTRUCTION DRAWING CB-6 WITH THE FOLLOWING EXCEPTIONS FROM THE CITY OF SOLON:

- ALL BRICK SHALL BE RED SHALE BRICK CONFORMING TO ODOT ITEM 704.01 (ASTM C32), UNLESS APPROVED IN WRITTING BY THE ENGINEER
- THE ENTIRE AREA AROUND THE BASIN SHALL BE BACKFILLED WITH ODOT ITEM #304 CRUSHED LIMESTONE, MECHANICALLY COMPACTED IN 12" LIFTS.
- PRECAST UNITS SHALL BE SET ON 6" - #57 CRUSHED LIMESTONE.
- ALL SEWER PIPES SHALL HAVE BOOTED CONNECTIONS CAST INTO THE STRUCTURE.

ALL LABOR, TOOLS, EQUIPMENT, MATERIALS AND INCIDENTALS INCLUDING EXCAVATION AND BACKFILL USING CRUSHED LIMESTONE SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 611 - CATCH BASIN, NO. 6, AS PER PLAN

ITEM SPECIAL - UTILITY COORDINATION AND RELOCATION

THIS ITEM SHALL BE IN CONFORMANCE WITH ODOT CMS 107 AND THE 4a UTILITY NOTE FOR UTILITY COORDINATION AND RELOCATION WITH CEI FIRST ENERGY FOR THE CONSTRUCTION OF THE PROPOSED STORM SEWER FROM STA. 61+31 TO STA. 71+03

FOR ESTIMATING PURPOSES, THE FOLLOWING ARE ANTICIPATED LOCATIONS OF POTENTIAL CONFLICT:

- STA. 62+30 LT (HARPER RD)
- STA. 63+54 LT (HARPER RD)
- STA. 65+50 TO STA. 69+20 LT (HARPER RD)
- STA. 70+45 (HARPER RD)
- STA. 71+03 LT (HARPER RD)

EXISTING CEI DUCTS WILL REMAIN IN PLACE AND THE FOLLOWING COORDINATION WILL BE REQUIRED FOR CEI TO DE-ENERGIZE AND PULL THEIR CABLE AND THE ODOT CONTRACTOR TO CONSTRUCT THE PROPOSED STORM SEWER WITHIN THIS AREA.

CEI REQUIRES 30-DAY NOTICE FROM THE ODOT CONTRACTOR TO DE-ENERGIZE THEIR FACILITIES AND TO PULL CABLE FROM THE UNDERGROUND DUCTS.

ODOT CONTRACTOR SHALL FIELD LOCATE (I.E. POTHOLE, EXCAVATE, ETC.) THE EXISTING CEI DUCTS PRIOR TO ORDERING MATERIALS AND ANY STORM SEWER ADJUSTMENTS SHALL BE COORDINATED WITH THE FIELD ENGINEER TO AVOID ANY CONFLICTS WITH THE CEI DUCTS.

ODOT CONTRACTOR SHALL USE CAUTION WHILE CONSTRUCTING STORM SEWER TO MINIMIZE IMPACTS AND DAMAGE TO THE EXISTING UNDERGROUND DUCTS. CEI TO HOLD HARMLESS ODOT AND ODOT'S CONTRACTOR FOR ANY DAMAGE TO THE UNDERGROUND CONDUITS.

ALL LABOR, TOOLS, EQUIPMENT, MATERIALS AND INCIDENTALS INCLUDING THE PRELIMINARY INVESTIGATION AND COORDINATION SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM SPECIAL - UTILITY COORDINATION AND RELOCATION.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR THE WORK NOTED ABOVE:

ITEM SPECIAL - UTILITY COORDINATION AND RELOCATION LS

DESIGN AGENCY



DESIGNER

ATR

REVIEWER

CWL 09/02/21

PROJECT ID

113889

SHEET

23

TOTAL

481

STORM SEWER CONSTRUCTION

THE CONTRACTOR SHALL INSTALL ALL OF THE PROPOSED STORM SEWERS LOCATED OUTSIDE OF THE EXISTING PAVEMENT LIMITS AHEAD OF PHASE 1 TO ENSURE THE TIME NECESSARY TO CONSTRUCT THE ENTIRE DDI IN PHASES 1 THRU 5 IN CONSTRUCTION SEASON 2. THE DDI CONSTRUCTION SHALL NOT SPAN TWO CONSTRUCTION SEASONS. ANY NECESSARY TEMPORARY GRADING REQUIRED TO MAINTAIN POSITIVE DRAINAGE SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614 - MAINTAINING TRAFFIC. THE FOLLOWING PIPES (AND ASSOCIATED DRAINAGE STRUCTURES) ARE TO BE CONSTRUCTED IN CONSTRUCTION SEASON 1:

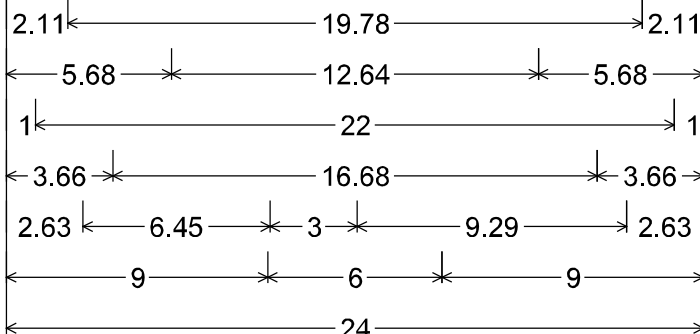
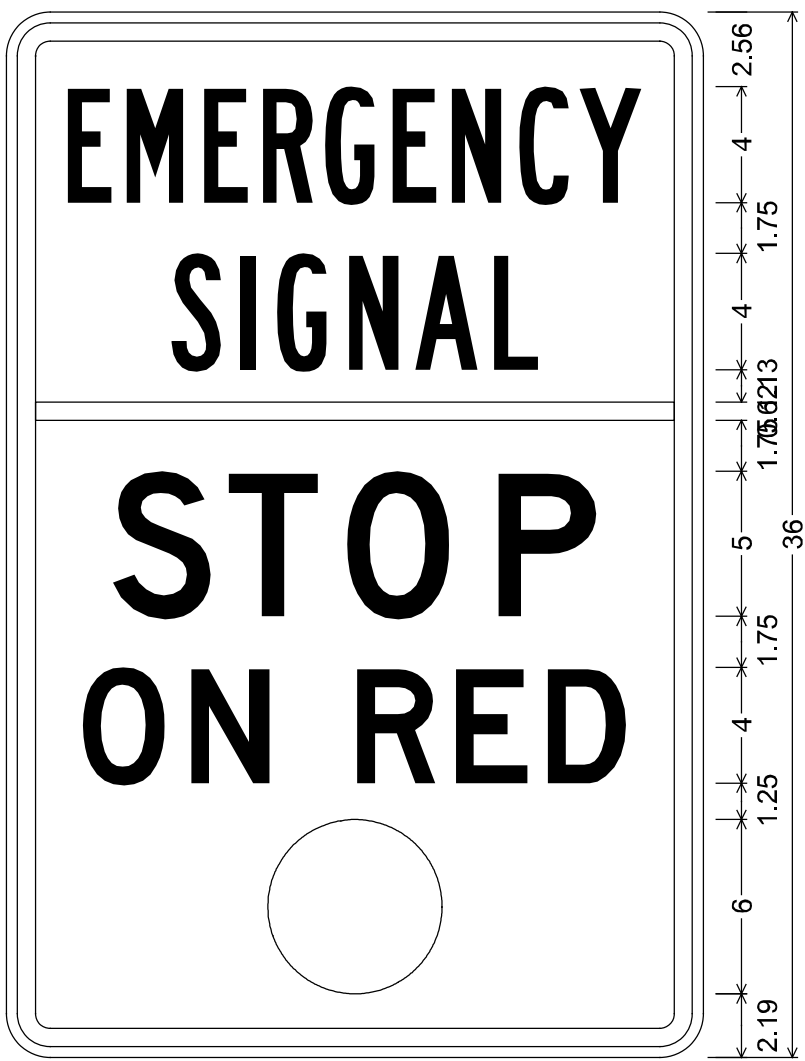
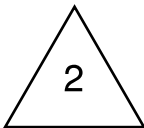
DJ-59, 91

HW-36

D-6, 7, 9, 10, 13, 16, 18, 25, 26, 28, 29, 31, 32, 34, 35, 36, 37, 38, 39, 42, 43, 44, 47, 48, 51, 52, 53, 54, 56, 57, 60, 61, 62, 63, 64, 65, 67, 69, 71, 72

P-5, 6, 7, 9, 10, 13, 18, 25, 26, 28, 29, 32, 34, 35, 36A, 36B, 37, 39, 42, 43, 44, 47, 48, 50, 51, 52, 53, 54, 56, 57, 59, 60, 62, 63, 64, 65, 67, 69, 71, 72

**P-5, 13, 18, 50 AND 63 TO BE CONSTRUCTED OUTSIDE EX RAMP PAVEMENT LIMITS



1.50" Radius, 0.63" Border, 0.38" Indent, Black on White;
"EMERGENCY", B 2K 80% spacing;
"SIGNAL", B 2K;
"STOP", D 2K specified length;
"ON", D 2K specified length;
"RED", D 2K specified length;
Table of widths and spaces

2.11	E	1.52	0.51	M	1.96	0.70	E	1.52	0.52	R	1.72	0.41	G	1.72	0.61	E	1.52	0.51	N	1.72	0.61	C	1.72	0.35	Y	2.16	2.11																	
5.68	S	1.72	0.64	I	0.52	0.76	G	1.72	0.76	N	1.72	0.56	A	2.16	0.56	L	1.52	5.68																										
1.00	22.00		1.00																																									
3.66	S	3.40	0.60	T	3.10	0.98	O	3.55	1.65	P	3.40	3.66																																
2.63	O	2.84	0.89	N	2.72																																							
		3.00	R	2.72	0.68	E	2.48	0.69	D	2.72	2.63																																	
9.00	O		6.00	9.00																																								

ALL DIMENSIONS SHOWN ARE IN INCHES.

SIGNCAD
N.T.S.



DESIGN AGENCY		
DESIGNER	KRM	
REVIEWER	AKF	
PROJECT ID	113889	
SHEET	31	TOTAL 481