RENT CONSTRUCTION ITEMS

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OVERVIEW

Rent Construction Items have different documentation requirements for each unit of measure (UOM). All Rent Construction Items must be counted, measured and calculated and/or based on plan. Documentation examples for a few selected Rent Construction Items are illustrated in this chapter. Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format should be followed. If there are items which cannot be documented according to the following examples, contact the Construction Admin Services Section for assistance.

INSPECTOR'S RESPONSIBILITIES - RENT CONSTRUCTION ITEMS

- Use the Agreement Estimate report as a reference to ensure that items and quantities are paid in the correct category (AEB).
- Use the Summary of Construction Signs (Figure 22-1), the Summary of Barricades (Figure 22-2), and/or the Main Structure
 List, located in the Contract plans, to help identify items, quantities, descriptions and locations.

NOTE STP-0160(016)	SUMMARY OF CONST QUANTITIES SHOWN ARE APPROXIMATE AN ADDITIONAL SIGNS, NOT LISTED, MAY BE REQ	D ARE SUBJECT TO IN	CREASE OR	INFER			
31P-0100(016)	QUANTITIES FOR CONSTRUCTION SIGN	IS AND TRAFFIC CON	TROL DEVICE	S ARE BASE			E SE
SIGN NO.	MESSAGE		PANEL	TOTAL SIGNS*	SQFT	SQFT	1
M1-1	INTERSTATE SHELD (15) (BLACK ON ORANGE)		24" X 24"				1
M3-1	NORTH (BLACK ON ORANGE)		24" X 24" 24" X 12"	23	4.0	92.0	ı
M3-3	SOUTH (BLACK ON ORANGE)		24" X 12"	11	2.0	22.0	ı
M4_8	DETOUR (BLACK ON ORANGE)		30" X 15"		2.0	18.0	1
M6_1	ARROW (SYM) RIGHT OR LEFT		21" X 15"	15	3.1	47.0	1
M6_3	ARROW (SYM) UP			18	2.2	39.4	1
NBA_1	BUSINESS ACCESS (RIGHT ARROW)		21" X 15"		2.2	17.5	
NBA_2			42" X 42"	•	12.3	49.0	
	BUSINESS ACCESS (LEFT ARROW)		42" X 42"	4	12.3	49.0	ı
NDP_1 NPS_1	30 MINUTE DELAY POSSIBLE		48" X 36"	•	12.0	72.0	
NRC_1	PERPARE TO STOP		48" X 48"	7	16.0	112.0	
NRC_1A	RAMP CLOSED		48" X 36"	•	12.0	72.0	ı
NRE_1	RAMP CLOSED AHEAD		48" X 48"	2	16.0	32.0	1
	RAMP EXIT		42" X 54"	1	15.8	15.8	ı
NTL_1	LEFT TURN LANE		30" X 48"	11	10.0	110.0	ı
NTL_2	RIGHT TURN LANE		30" X 48"	1	10.0	10.0	
NTT_1	THROUGH TRAFFIC UP ARROW		54" X 60"	6	22.5	112.5	ı
NWZ_1	BEGIN WORK ZONE		48" X 24"	10	8.0	80.0	ı
NWZ_2	END WORK ZONE		48" X 24"	12	8.0	96.0	ı
NWZ_3	DOUBLE PENALITY IN WORK ZONE		48" X 48"	10	16.0	160.0	ı
R2_1	SPEED LIMIT 25		48" X 60"	2	20.0	40.0	ı
R2_1	SPEED LIMIT 55		48" X 60"	6	20.0	100.0	I
R2_1	SPEED LIMIT 65		48" X 60"	4	20.0	80.0	I
R2_SA	REDUCE SPEED AHEAD		48" X 60"	4	20.0	80.0	
R3_1	NO RIGHT TURN (SYM)	1	48" X 48"	1	16.0	16.0	i
R3_2	NO LEFT TURN (SYM)		48" X 48"	2	16.0	32.0	
R3_7L	MANDATORY TURN (LEFT)		30" X 30"	3	6.3	18.8	1
R3_TR	MANDATORY TURN (RIGHT)		30" X 30"	3	6.3	18.8	1
R4_7A	KEEP RIGHT (HORIZONTAL ARROW)		48" X 60"	3	20.0	60.0	
R4_BA	KEEP LEFT (HORIZONTAL ARROW)		48" X 50"	2	20.0	40.0	ı
R11_2	ROAD CLOSED		48" X 30"	,	10.0	70.0	l
R11_4	ROAD CLOSED TO THRU TRAFFIC		80. X 30.	1			
W1_1L	TURN (LEFT)		48" X 48"	500	12.5	12.6	
W1_1R	TURN (RIGHT)			1	16.0	16.0	
W1_4BL	TWO LANE REVERSE CURVE (LEFT)		48" X 48"	1	16.0	16.0	
W1_4BR	TWO LANE REVERSE CURVE (RIGHT)		48" X 48"	2	16.0	32.0	
W1_4L	REVERSE CURVE (LEFT)		48" X 48"	4	16.0	54.0	
W1_4R			48" X 48"	2	16.0	32.0	
W4_1AR	REVERSE CURVE (RIGHT)		48" X 48"		16.0	128.0	
W4 2L	THRU TRAFFIC MERGE RIGHT		48" X 48"	1	16.0	16.0	
W4 2R	LANE ENDS (LEFT)		48" X 48"		16.0	96.0	
	LANE ENDS (RIGHT)		48" X 48"	2	16.0	32.0	
W6_3	TWO WAY (SYM)		48" X 48"	1	16.0	16.0	
W13_1	ADVISORY SPEED PLATE (15)		24" X 24"	2	4.0	8.0	i
W13_1	ADVISORY SPEED PLATE (26)		24" X 24"		4.0	24.0	ı
W13_1	ADVISORY SPEED PLATE (46)		24" X 24"	11	4.0	44.0	ı
W13_1	ADVISORY SPEED PLATE (56)		24" X 24"	6	4.0	20.0	ı
W20_1	ROAD WORK AHEAD		48" X 48"	12	16.0	192.0	ı
W20_2	DETOUR AHEAD		48" X 48"	2	16.0	32.0	\vdash
W20_4	ONE LANE ROAD AHEAD		48" X 48"	1	16.0	16.0	
W20_6L	LEFT LANE CLOSED AHEAD	1	48" X 48"		16.0	96.0	00
W20_5R	RIGHT LANE CLOSED AHEAD		48" X 48"	4	16.0	64.0	
W20_7A	FLAGGER SYMBOL		48" X 48"	,	16.0	112.0	
W21_6	SHOULDER WORK		48" X 48"	7	16.0	112.0	S
		TOTAL SIGNS NEEDE		291	10.0	112.0	NEVADA
IM-015-1(126)		TOTAL SQUARE FEET				2942.1	
NWZ_1	BEGIN WORK ZONE		48" X 24"	2	8.0	16.0	
NWZ_2	END WORK ZONE		48" X 24"	2	8.0	16.0	_
NWZ_3	DOUBLE PENALITY IN WORK ZONE		48" X 48"	2		277	STP-0180(016 IM-015-1(126)
R2_1	SPEED LIMIT 55		48" X 60"	2 2	16.0	32.0	\$ 9
R2_1	SPEED LIMIT 66		48" X 60"	2 2	20.0	40.0	15 (8
N4_2L	LANE ENDS (LEFT)				20.0	40.0	55 76
N4_2R	LANE ENDS (RIGHT)		48" X 48"	2	16.0	32.0	
W13_1	ADVISORY SPEED PLATE (66)	1	48" X 48"	2	16.0	32.0	
N20_1	ROAD WORK AHEAD	1	24" X 24"	2	4.0	8.0	0
W20_5L	LEFT LANE CLOSED AHEAD		48" X 48"	2	16.0	32.0	CLARK
W20 5R	RIGHT LANE CLOSED AHEAD		48" X 48" 48" X 48"	2	16.0	32.0	*
				2		32.0	
V21_6	SHOULDER WORK		48" X 48"	,	16.0	32.0	_

Figure 22-1: Summary of Construction Signs

SUMMARY OF CONSTRUCTION BARRICADES

NOTE: QUANTITIES SHOWN ARE APPROXIMATE AND ARE SUBJECT TO INCREASE OR DECREASE.

STP-0160(016)

CONSTRUCTION DEVICES	UNIT	TOTAL
ARROW BOARDS (TYPE C) (EACH)	EACH	2.00
ATTENUATOR 45 MPH	EACH	2.00
ATTENUATOR 65 MPH	EACH	1.00
TYPE 3B BARICADE	EACH	57.00
TRAFFIC CONES (EACH)	EACH	393.00
TRAFFIC DRUMS (EACH)	EACH	202.00
FLAGGER	EACH	4.00
PORTABLE TRAFFIC SIGNAL	EACH	1.00
PORTABLE PRECAST CONCRETE BARRIER RAIL	LIN FT	42.00
TEMPORARY PAINTED STRIPING (BROKEN WHITE)	MILE	3.33
TEMPORARY PAINTED STRIPING (8-INCH SOLID WHITE)	MILE	0.37
TEMPORARY PAINTED STRIPING (DOUBLE SOLID YELLOW)	MILE	2.76
TEMPORARY PAINTED STRIPING (SOLID WHITE)	MILE	11.87
TEMPORARY PAINTED STRIPING (SOLID YELLOW)	MILE	5.16
TEMPORARY PAINTED STRIPING (VARIES)	SQFT	1060.00
TYPE 1 TEMPORARY STRIPING TAPE (SOLID WHITE)	LIN FT	3210.00
TYPE 1 TEMPORARY STRIPING TAPE (SOLID YELLOW)	LIN FT	1820.00
TYPE 1 TEMPORARY STRIPING TAPE (PILOT LINES)	LINFT	700.00

IM-015-1(126)

CONSTRUCTION DEVICES	UNIT	TOTAL
ARROW BOARDS (TYPE C) (EACH)	EACH	1
ATTENUATOR 65 MPH	EACH	1
TRAFFIC DRUMS (EACH)	EACH	202
PORTABLE PRECAST CONCRETE BARRIER RAIL	LIN FT	420
TEMPORARY PAINTED STRIPING (BROKEN WHITE)	MILE	18.40
TEMPORARY PAINTED STRIPING (SOLID WHITE)	MILE	10.70
TEMPORARY PAINTED STRIPING (SOLID YELLOW)	MILE	8.70
TEMPORARY PAINTED STRIPING (DOTTED WHITE)	MILE	1.20

GENERAL NOTES

- Refer to Nevada Department of Transportation Standard Specifications for Road and Bridge Construction, 2001 Edition, for specifications except as modified by these plans and special provisions.
- Sign numbers shown on the Summary of Construction Signs are taken from the Manual on Uniform Traffic Control Devices (2003 Edition) and Standard Highway Signs (2002) and Nevada Supplement thereto, (1997 Edition).
- Traffic control devices, construction signs, and barricades shall conform to the requirements of the M.U.T.C.D. 2003 edition and the Nevada Standard Plans, 2003 Edition.
- Depth of base and surface is minimum compacted thickness.
- 5. State will remove and furnish all milepost marker panels.
- 6. Guide posts and object markers shall be removed by contractor, at no direct payment.
- The Contractor shall avoid damage to underground utilities. Locations are approximate and the Contractor will field verify and survey the locations. No Direct Payment.
- 8. Grades and cross slopes of the roadway shall conform to the present travel way.
- All legally established survey monuments disturbed during construction shall be preserved in accordance with State and local laws and regulations.
- Mineral filler and asphalt cement quantities shown are for informational purposes only and payment for them is included within the Plantmix Surfacing (Type 2C) (Wet) and Plantmix Open-Graded Surfacing (3/8-inch) (Wet) bid item.
- 11. For traffic control not shown, refer to Nevada Standards, 2003 Edition and MUTCD (2003) Edition.

NEVADA ST	STATE PR
STP-0160(016) IM-015-1(126)	PROJECT NO.
CLARK	COUNTY
38	NO.

Figure 22-2: Summary of Construction Barricades

- Review the following for accuracy:
 - Special Provisions
 - Supplemental Notices
 - Contract Modifications

Note: When any changes are made to an item, reference the Contract Modification number in the IDR item posting remarks.

Turn in ALL Rent Construction Item calculation sheets to the Office Engineer.

INSPECTOR DAILY REPORT (IDR) - MOBILE INSPECTOR

- 1. Create an IDR in Mobile Inspector daily to document the activity being monitored. Refer to the Mobile Inspector User Guide for details on using this application.
 - Report Details daily activities
 - Item Postings item(s) and quantity(s)
 - Equipment type and hours
 - Personnel title and hours
- 2. Record the following required information in the Report Details window (Figure 22-3):
 - Date
 - Weather
 - Low and high temperature
 - Attachments (N/A) Send ALL photos via email.
 - Remarks Verify with the Resident Engineer on what information is required.



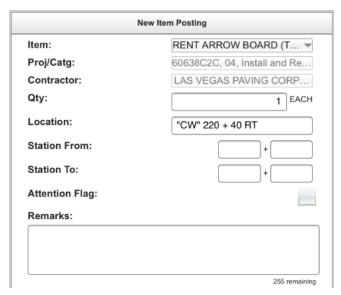
Figure 22-3: IDR Report Detail Window

- 3. Record the following required information in the New Item Postings window:
 - Item
 - Proj/Catg Refer to the AEB report.
 - Contractor ALWAYS the Prime Contractor (Subcontractors are not allowed).
 - Qty Based on measurements, calculations and/or plan
 - Location Must show line designation, LT, RT or CL and offset if known.
 - Station From/To Refer to plans.
 - Attention Flag Use to bring attention to Resident Engineer and Office Engineer for overruns and plan errors.
 - Remarks Must show calculations when appropriate, refer to Calculation Sheet when appropriate (Refer to Appendix B, Calculation Formulas, in this Manual for a Calculation Sheet example), other information relevant to item posting, and explanations when Attention Flag is checked.

RENT CONSTRUCTION ITEMS

NOTES for Rent Construction Item postings:

- If there are questions on whether an EACH item can be listed separately or combined, contact the Construction Admin Services Section for assistance.
- Refer to Figure 22-4 through Figure 22-8 for examples of Rent Construction Item postings with different UOM.



NOTES for Rent Construction Item EACH (Figure 22-4):

- Payment for EACH items will be based on field count.
- In Location, enter the Line Designation and LT, RT, or CL.
- Sig. Fig. = 1

Figure 22-4: IDR Item Posting - Rent Construction Item EACH

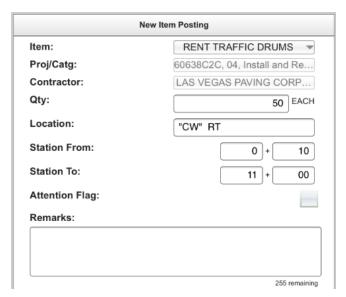


Figure 22-5: IDR Item Posting - Rent Construction Item EACH

NOTES for Rent Construction Item EACH (Figure 22-5):

- Payment for EACH items will be based on field count (this example shows an EACH item combined).
- In Location, enter the Line Designation and LT, RT, or CL.
- Sig. Fig. = 1

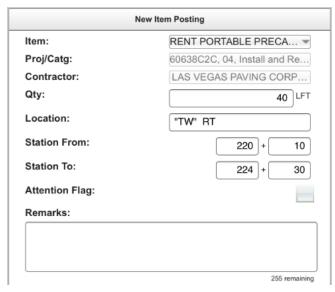


Figure 22-6: IDR Item Posting - Rent Construction Item LFT



Figure 22-7: IDR Item Posting - Rent Construction Item SQFT

NOTES for Rent Construction Item LFT (Figure 22-6):

- Payment for LFT items will be based on field measurements.
- In Location, enter the Line Designation and LT, RT, or CL.
- Sig. Fig. = 1

NOTES for Rent Construction Item SQFT (Figure 22-7):

- Payment for SQFT (Signs only) shall be based on plan or if different than plan a complete explanation as to how the SQFT were derived or calculations are needed.
- Calculation for SQFT = LxW
- In Location, enter the Line Designation and LT, RT, or CL.
- Sig. Fig. = .01
- Sign No. must be entered in the remarks (Sign No. is identification number of the sign as shown in the Contract plans). The message for the Sign No. must match the Summary of Construction Signs sheet (refer to Figure 22-1). If it does not, an explanation is required.



Figure 22-8: IDR Item Posting - Rent Construction Item SQFT

- NOTES for Rent Construction Item SQFT (Figure 22-8):
- Payment for SQFT (Signs only) shall be based on plan or if different than plan a complete explanation as to how the SQFT were derived or calculations are needed.
- Calculation for SQFT = LxW
- In Location, enter the Line Designation and LT, RT, or CL.
- Sig. Fig. = .01
- Sign No. must be entered in the remarks (Sign No. is identification number of the sign as shown in the Contract plans). The message for the Sign No. must match the Summary of Construction Signs sheet (refer to Figure 22-1). If it does not, an explanation is required.
- 4. Record the following required information in the New Equipment window (Figure 22-9 and Figure 22-10).
 - Contractor Actual contractor performing the work (including Subcontractors).
 - Type Detailed description of the equipment (e.g., diesel, HP, model, make).
 - Number How many of each type.
 - Hours Total hours in use.

Note: An attachment to an equipment's base configuration must have its own record.



Figure 22-9: IDR Equipment Entry



Figure 22-10: IDR Equipment List

- 5. Record the following required information in the New Personnel window (Figure 22-11 and Figure 22-12):
 - Contractor Actual contractor performing the work (including Subcontractors).
 - Type Details of personnel type (e.g., foreman, laborer, truck driver).
 - Number How many of each title.
 - Hours Total hours worked.



Figure 22-11: IDR Personnel Entry



Figure 22-12: IDR Personnel List

6. Complete a final review of the IDR and lock it.

Note: When a Mobile Inspector IDR is completed and locked the information is uploaded into a FieldManager IDR, where it is reviewed and generated for processing progress payments.

OFFICE ENGINEER'S RESPONSIBILITIES - RENT CONSTRUCTION ITEMS

- Save Rent Construction Item photos in the appropriate EDOC Contract Files\Contract Files\ Division No. 3 Multimedia Records\3.# Photographs with Descriptions directory.
- Review Rent Construction Item Calculation Sheets for accuracy and save electronically in the appropriate EDOC Contract Files\Contract Files\Division No. 7 - Construction Pay Estimate and Related Data\7.# IDR Calculation Sheets directory using this naming convention: IDR YYYY-MM-DD Inspectors Initials, (e.g. IDR 2016-03-19 KMM).
- Distribute executed copies of Contract Modifications to Inspectors.

INSPECTOR DAILY REPORT (IDR) - FIELDMANAGER

When a Mobile Inspector IDR is locked by an Inspector, the information is uploaded into a FieldManager IDR. Refer to Chapter 7, Inspector Daily Report, in the FieldManager User Guide for details.

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RENT CONSTRUCTION ITEMS

- 1. Verify the following:
 - Information in the Comments and Remarks
 - Information in the Contractor tab (Personnel and Equipment)
 - Items are paid correctly according to the contract documents (e.g., plans, supplemental notices, Contract Modifications).
 - · Item quantities
 - Quantities in postings are documented to the correct Significant Figure.
 - Stations and Line Designations in the Locations
 - Calculations are correct.
 - Remarks reference calculation sheets, if applicable.

Note: Length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the Inspector before assuming the calculations are incorrect.

2. Generate the IDR.