



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

December 21, 2007

SUBJECT: FAU Route 1376
(Grand Avenue and Thatcher Avenue)
Project TE-D1(754)
Section 06-00087-00-SW (River Grove)
Cook County
Contract No 83926
Item 28 A
January 18, 2008 Letting

TO PROSPECTIVE BIDDERS:

To clarify information it is necessary to revise the following:

Proposal- Revised the Table of Contents. Revised pages 41-66 of the Special Provisions. Revised pages 1-5 of the Schedule of Prices.

Plans-Revised sheets 4 and 19-26

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal. Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Since the proposal sheets are printed back to back, bidders are cautioned to exercise care when inserting revised and/or added special provisions into their proposals.

Please call 217-782-7806 if any of the above-described material is not included in this transmittal.

Very truly yours,

Eric Harm
Interim Engineer of Design and Environment

A handwritten signature in cursive script, reading "Ted B. Walschleger" followed by "P.E." in a smaller font.

By: Ted B. Walschleger, P. E.
Engineer of Project Management

STATE JOB #- C-91-125-07
 PPS NBR - 0-00988-0000

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
COOK	031	01	06-00087-00-SW (RIVER GROVE)	TE-00D1/754/000	FAU 1376

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
A2000724	T-ACER PLAT COL 3	EACH	2.000 X				
A2004724	T-GLED TRI-I SM 3	EACH	6.000 X				
A2008124	T-TILIA CORD GS 3	EACH	7.000 X				
B2005616	T-PYRUS C BF TF 2	EACH	2.000 X				
XX001186	PLANTER REMOVAL	EACH	21.000 X				
XX001672	SS (PVC) SDR 26 12	FOOT	80.000 X				
XX003059	DECOR BRICK SIDEWALK	SQ FT	27,000.000 X				
XX003424	CONN TO EXIST STRUCT	EACH	2.000 X				
XX006937	GROUND ROD 5/8 X 10	EACH	56.000 X				
XX007000	PCC BASE COURSE 3"	SQ FT	8,075.000 X				
XX007151	PLANTER RAILING	FOOT	550.000 X				
XX007152	DEC LT PL AL 12 MH	EACH	56.000 X				
XX007153	DEC AC L SV TN MT 100	EACH	56.000 X				
X0322256	TEMP INFO SIGNING	SQ FT	103.000 X				
X0323426	SED-CONT DR-ST INL CL	EACH	25.000 X				

Revised 12/21/07

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X0323574	MAINTAIN LIGHTING SYS	CAL MO	6.000 X				
*Z0048665	RR PROT LIABILITY INS	L SUM	1.000 X				
Z0076600	TRAINEES	HOUR	500.000 X	0.80		400.00	
20100110	TREE REMOV 6-15	UNIT	30.000 X				
20200100	EARTH EXCAVATION	CU YD	275.000 X				
20800150	TRENCH BACKFILL	CU YD	40.000 X				
21101615	TOPSOIL F & P 4	SQ YD	1,000.000 X				
25000400	NITROGEN FERT NUTR	POUND	15.000 X				
25000500	PHOSPHORUS FERT NUTR	POUND	15.000 X				
25000600	POTASSIUM FERT NUTR	POUND	15.000 X				
25200100	SODDING	SQ YD	1,000.000 X				
25200200	SUPPLE WATERING	UNIT	10.000 X				
25300500	TOP SOIL FOR PLANTING	CU YD	45.000 X				
28000510	INLET FILTERS	EACH	25.000 X				
35101600	AGG BASE CSE-B 4	SQ YD	1,950.000 X				

* Pay item X0323574 was eliminated.
 Revised 12/21/07

FAU 1376
06-00087-00-SW (RIVER GROVE)
COOK

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 83926

ECMS002 DTGECM03 ECMR003 PAGE 3
RUN DATE - 12/20/07
RUN TIME - 203935

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
35300200	PCC BSE CSE 7	SQ YD	1,350.000 X	=	=	=	=
40600100	BIT MATLS PR CT	GALLON	75.000 X	=	=	=	=
40600300	AGG PR CT	TON	20.000 X	=	=	=	=
40603315	HMA SC "C" N70	TON	26.000 X	=	=	=	=
42000300	PCC PVT 8	SQ YD	100.000 X	=	=	=	=
42101300	PROTECTIVE COAT	SQ YD	4,475.000 X	=	=	=	=
42300300	PCC DRIVEWAY PAVT 7	SQ YD	410.000 X	=	=	=	=
42400200	PC CONC SIDEWALK 5	SQ FT	27,600.000 X	=	=	=	=
42400800	DETECTABLE WARNINGS	SQ FT	1,350.000 X	=	=	=	=
44000100	PAVEMENT REM	SQ YD	100.000 X	=	=	=	=
44000154	HMA SURF REM 1 1/4	SQ YD	585.000 X	=	=	=	=
44000200	DRIVE PAVEMENT REM	SQ YD	650.000 X	=	=	=	=
44000500	COMB CURB GUTTER REM	FOOT	3,570.000 X	=	=	=	=
44000600	SIDEWALK REM	SQ FT	46,000.000 X	=	=	=	=
56500600	DOM WAT SER BOX ADJ	EACH	45.000 X	=	=	=	=

revised 12/21/07

FAU 1376
06-00087-00-SW (RIVER GROVE)
COOK

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 83926

ECMS002 DTGECM03 ECMR003 PAGE 4
RUN DATE - 12/20/07
RUN TIME - 203935

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60206905	CB TC T1F OL	EACH	1,000 X				
60234200	INLETS TA T1F OL	EACH	3,000 X				
60252800	CB RECONST	EACH	6,000 X				
60257900	MAN RECONST	EACH	1,000 X				
60266600	VALVE BOX ADJ	EACH	5,000 X				
60300305	FR & LIDS ADJUST	EACH	30,000 X				
60406000	FR & LIDS T1 OL	EACH	4,000 X				
60406100	FR & LIDS T1 CL	EACH	3,000 X				
60601005	CONC CURB TB SPL	FOOT	550,000 X				
60604100	COMB CC&G TB6.12 MOD	FOOT	3,570,000 X				
67100100	MOBILIZATION	L SUM	1,000 X				
70101800	TRAF CONT & PROT SPL	L SUM	1,000 X				
80400100	ELECT SERV INSTALL	EACH	2,000 X				
81018500	CON P 2 GALVS	FOOT	1,045,000 X				
81019000	CON P 5 GALVS	FOOT	125,000 X				

revised 12/21/07

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
81400115	HANDHOLE TO BE ADJUST	EACH	21.000 X				
81603080	UD 3#2#4GXLPUSE 1 1/4	FOOT	8,025.000 X				
81702400	EC C XLP USE 3-1C 2	FOOT	300.000 X				
81900200	TR & BKFIL F ELECT WK	FOOT	6,475.000 X				
82500505	LIGHT CONTROLLER SPL	EACH	2.000 X				
83600200	LIGHT POLE FDN 24D	FOOT	341.000 X				

TOTAL \$

- NOTE:
1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
 2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.
 3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
 4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

* Pay Item 81603040 was changed to 81603080
 Revised 12-21-07

Transportation Corridor
Beautification Project
Village of River Grove
Section No. 06-0087-00-SW

GENERAL ELECTRICAL REQUIREMENTS	29
MAINTENANCE OF LIGHTING SYSTEMS	30
WIRE AND CABLE	33
TRENCH AND BACKFILL FOR ELECTRICAL WORK	34
UNDERGROUND RACEWAYS.....	35
EXPOSED RACEWAYS	35
GROUND ROD	38
ELECTRIC SERVICE INSTALLATION	39
NOTIFICATION OF STATE ELECTRICAL MAINTENANCE CONTRACTOR	40
GROUNDING OF LIGHTING SYSTEM.....	40
HANDHOLE TO BE ADJUSTED	40
DECORATIVE LIGHT POLE, ALUMINUM, 12' MOUNTING HEIGHT	41
DECORATIVE ACORN STYLE LUMINAIRE, SODIUM VAPOR, TENON MOUNT, 70 WATT	41
LIGHTING CONTROLLER, SPECIAL	42
LUMINAIRE	43
MWRD PERMIT	52

revised 12/21/07

- 3) All concrete debris shall be removed and disposed of by the Contractor.
- 4) Areas adjacent to each side of the handhole shall be excavated to allow for forming.
- 5) The existing frame and cover shall be replaced if it was damaged during removal or as determined by the Engineer.

Basis of Payment: This item shall be paid for at the Contract unit price per Each for HANDHOLE TO BE ADJUSTED, which price shall include all labor, material, and equipment necessary to adjust handholes in accordance with the Specifications.

DECORATIVE LIGHT POLE, ALUMINUM, 12' MOUNTING HEIGHT

Work shall be in accordance with Section 830 insofar as applicable, modified herein and as detailed on the Plans.

The light pole shall be in accordance with Section 1069 insofar as much as applicable and as specified herein and as detailed on the Plans. The light pole shall be as manufactured by or equal of the type listed herein:

- 1) King Luminaire - Colonial 12' - KM22RE-12 with 15A/120V GFCI Duplex Receptacle, UL Listed with watertight in-use metallic cover plate, painted black, cover to conform to NEC 406.8B.2a
- 2) Hadco Lighting - P4400 Series 12' - P4420-12A with 15A/120V GFCI Duplex Receptacle, UL Listed with watertight in-use metallic cover plate, painted black, cover to conform to NEC 406.8B.2a
- 3) Or equal

The light pole (complete assembly) shall have a black powder coated finish.

The poles shall be UL classified.

Basis of Payment: This item shall be paid for at the Contract unit price per Each for DECORATIVE LIGHT POLE, ALUMINUM, 12' MOUNTING HEIGHT, which price shall include all labor, material, and equipment necessary to furnish and install the light pole in accordance with the Specifications.

DECORATIVE ACORN STYLE LUMINAIRE, SODIUM VAPOR, TENON MOUNT, 70 WATT

Work shall be in accordance with Section 821 insofar as applicable, modified herein and as detailed on the Plans.

The luminaire shall be in accordance with Section 1067 insofar as much as applicable and as specified herein and as detailed on the Plans.

The luminaire shall be as manufactured by or equal of the type listed herein:

- 1) King Luminaire - K118 EAR V 70 MOG HPS 120 K16 BK
- 2) Hadco Lighting - R54 C A N E 2 A N N G 70S-G
- 3) Or equal

The luminaire shall be provided with a Bussman, HEY-AW fuse holder or approved equal and shall have a black finish.

Basis of Payment: This item shall be paid for at the Contract unit price per Each for DECORATIVE ACORN STYLE

LUMINAIRE, SODIUM VAPOR, TENON MOUNT, 70 WATT, which price shall include all labor, material, and equipment necessary to furnish and install the luminaire in accordance with the Specifications.

LIGHTING CONTROLLER, SPECIAL

Work shall be in accordance with Section 825 and 1068 insofar as applicable, modified herein and as detailed on the Plans.

- 1068.01(b) Delete Article 1068.01(b) (2) Double Door Enclosure and 1068.01(b) (3) Wall Mount Enclosure
- 1068.01(c) Delete Article 1068.01(c) (1) Unfinished Enclosures. The color of the finish coat for the control cabinet shall be Durandonic dark bronze. Samples of the finish shall be submitted to the Engineer for approval before ordering.
- 1068.01(e) Delete Article 1068.01(e) (1) Time Switch. The Control Center shall be subject to the inspection and approval of the Commonwealth Edison Company, after which, if satisfactory, the electrical cables or wires of Commonwealth Edison Company shall be connected with the circuits of the lighting system at the Control Center.

Revise the first sentence of Article 1068.01(e)(4) of the Standard Specifications to read:

“Contactors shall be electrically operated, mechanically held as specified, with the number of poles required for the service and with operating coil voltage as indicated. The contactor shall have an in-line drive operating mechanism.”

Basis of Payment: This item shall be paid for at the Contract unit price per Each for LIGHTING CONTROLLER, SPECIAL, which price shall include service cabinet, foundations and erections, hardware and all necessary electrical components as described above or as shown on the Plans, installation of appurtenant components, making the connections with Commonwealth Edison facilities, and all equipment, material and labor necessary to complete the work in accordance with the requirements of the Contract Documents.

Luminaire

Effective: January 1, 2007

Add the following to first paragraph of Article 1067(c) of the Standard Specifications:

“The reflector shall not be altered by paint or other opaque coatings which would cover or coat the reflecting surface. Control of the light distribution by any method other than the reflecting material and the aforementioned clear protective coating that will alter the reflective properties of the reflecting surface is unacceptable”

Add the following to Article 1067(e) of the Standard Specifications:

“The ballast shall be a High Pressure Sodium, high power factor, constant wattage auto-regulator, lead type (CWA) for operation on a nominal 240 volt system.”

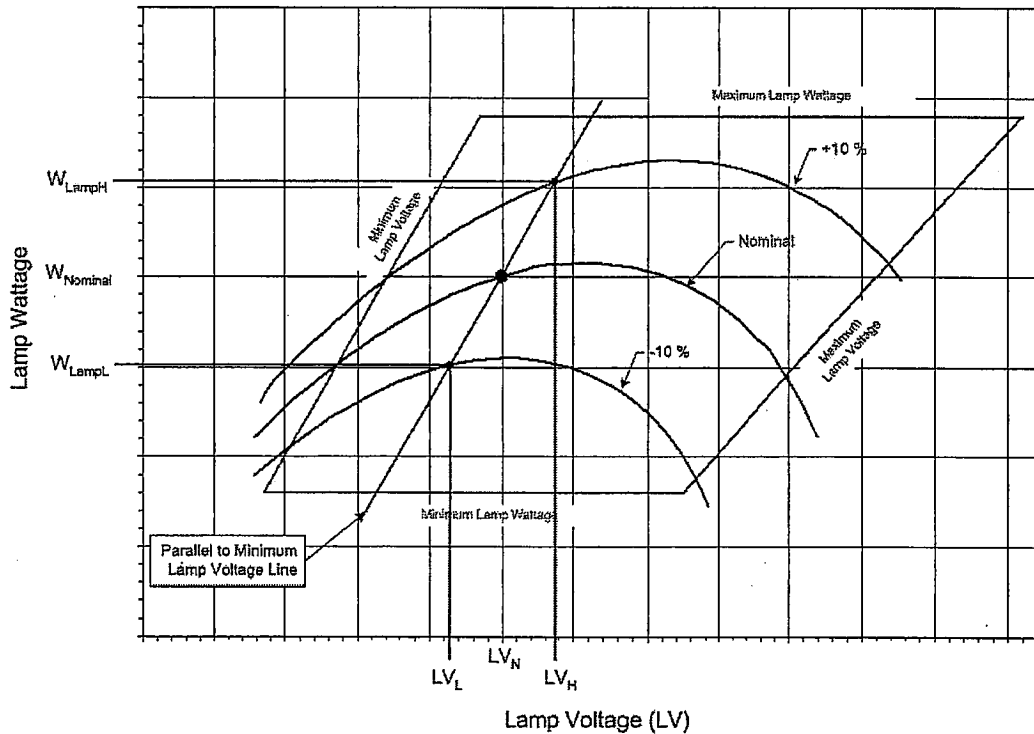
Revise Article 1067(e)(1) of the Standard Specifications to read:

“The high pressure sodium, auto-regulator, lead type (CWA) ballast shall be designed to ANSI Standards and shall be designed and rated for operation on a nominal 240 volt system. The ballast shall provide positive lamp ignition at the input voltage of 216 volts. It shall operate the lamp over a range of input voltages from 216 to 264 volts without damage to the ballast. It shall provide lamp operation within lamp specifications for rated lamp life at input design voltage range. Operating characteristics shall produce output regulation not exceeding the following values:

Nominal Ballast Wattage	Maximum Ballast Regulation
750	25%
400	26%
310	26%
250	26%
150	24%
70	18%

For this measure, regulation shall be defined as the ratio of the lamp watt difference between the upper and lower operating curves to the nominal lamp watts; with the lamp watt difference taken within the ANSI trapezoid at the nominal lamp operating voltage point parallel to the minimum lamp volt line:

**Transportation Corridor
 Beautification Project
 Village of River Grove
 Section No. 06-00087-00-SW**



$$\text{Ballast Regulation} = \frac{W_{LampH} - W_{LampL}}{W_{LampN}} \times 100$$

where:

W_{LampH} = lamp watts at +10% line voltage when Lamp voltage = LV_H

W_{LampL} = lamp watts at -10% line voltage when lamp voltage = LV_L

W_{LampN} = lamp watts at nominal lamp operating voltage = LV_N

Wattage	Nominal Lamp Voltage, LV_N	LV_L	LV_H
750	120v	115v	125v
400	100v	95v	105v
310	100v	95v	105v
250	100v	95v	105v
150	55v	50v	60v
70	52v	47v	57v

Ballast losses, based on cold bench tests, shall not exceed the following values:

Nominal Ballast Wattage	Maximum Ballast Losses
750	14.0%
400	17.0%
310	19.0%
250	19.0%
150	26.0%
70	34.0%

Ballast losses shall be calculated based on input watts and lamp watts at nominal system voltage as indicated in the following equation:

$$\text{Ballast Losses} = \frac{W_{Line} - W_{Lamp}}{W_{Lamp}} \times 100$$

where:

W_{line} = line watts at nominal system voltage

W_{lamp} = lamp watts at nominal system voltage

Ballast output to lamp. At nominal system voltage and nominal lamp voltage, the ballast shall deliver lamp wattage with the variation specified in the following table. Example: For a 400w luminaire, the ballast shall deliver 400 watts $\pm 2.5\%$ at a lamp voltage of 100v for the nominal system voltage of 240v which is the range of 390w to 410w.

Nominal Ballast Wattage	Output to lamp variation
750	$\pm 2.0\%$
400	$\pm 2.5\%$
310	$\pm 2.5\%$
250	$\pm 4.0\%$
150	$\pm 4.0\%$
70	$\pm 4.0\%$

Ballast output over lamp life. Over the life of the lamp the ballast shall produce average output wattage of the nominal lamp rating as specified in the following table. Lamp wattage readings shall be taken at 5-volt increments throughout the ballast trapezoid. Reading shall begin at the lamp voltage (L_v) specified in the table and continue at 5 volt increments until the right side of the trapezoid is reached. The lamp wattage values shall then be averaged and shall be within the specified value of the nominal ballast rating. Submittal documents shall include a tabulation of the lamp wattage vs. lamp voltage readings. Example: For a 400w luminaire, the averaged lamp wattage reading shall not exceed the range of $\pm 3\%$ which is 388 to 412 watts"

Nominal Ballast Wattage	LV Readings begin at	Maximum Wattage Variation
750	110v	± 3%
400	90v	± 3%
310	90v	± 3%
250	90v	± 4%
150	50v	± 4%
70	45v	± 5%

Add the following to Article 1067(f) of the Standard Specifications:

"Independent Testing. Independent testing of luminaires shall be required whenever the quantity of luminaires of a given wattage and distribution, as indicated on the plans, is 50 or more. For each luminaire type to be so tested, one luminaire plus one luminaire for each 50 luminaires shall be tested. Example: *A plan quantity of 75 luminaires would dictate that 2 to be tested; 135 luminaires would dictate that three be tested.*" If the luminaire performance table is missing from the contract documents, the luminaire(s) shall be tested and the test results shall be evaluated against the manufacturer's published data. The test luminaire(s) results shall be equal to or better than the published data. If the test results indicated performance not meeting the published data, the test luminaire will be designated as failed and corrective action as described herein shall be performed.

The Contractor shall be responsible for all costs associated with the specified testing, including but not limited to shipping, travel and lodging costs as well as the costs of the tests themselves, all as part of the bid unit price for this item. Travel, lodging and other associated costs for travel by the Engineer shall be direct-billed to or shall be pre-paid by the Contractor, requiring no direct reimbursement to the Engineer or the independent witness, as applicable"

The Contractor shall select one of the following options for the required testing with the Engineer's approval:

- a. Engineer Factory Selection for Independent Lab: The Contractor may select this option if the luminaire manufacturing facility is within the state of Illinois. The Contractor shall propose an independent test laboratory for approval by the Engineer. The selected luminaires shall be marked by the Engineer and shipped to the independent laboratory for tests.
- b. Engineer Witness of Independent Lab Test: The Contractor may select this option if the independent testing laboratory is within the state of Illinois. The Engineer shall select, from the project luminaires at the manufacturer's facility or at the Contractor's storage facility, luminaires for testing by the independent laboratory.

- c. **Independent Witness of Manufacturer Testing:** The independent witness shall select from the project luminaires at the manufacturers facility or at the Contractor's storage facility, the luminaires for testing. The Contractor shall propose a qualified independent agent, familiar with the luminaire requirements and test procedures, for approval by the Engineer, to witness the required tests as performed by the luminaire manufacturer.

The independent witness shall as a minimum meet the following requirements:

- ▶ Have been involved with roadway lighting design for at least 15 years.
- ▶ Not have been the employee of a luminaire or ballast manufacturer within the last 5 years.
- ▶ Not associated in any way (plan preparation, construction or supply) with the particular project being tested.
- ▶ Be a member of IESNA in good standing.
- ▶ Provide a list of professional references.

This list is not an all inclusive list and the Engineer will make the final determination as to the acceptability of the proposed independent witness.

- d. **Engineer Factory Selection and Witness of Manufacturer Testing:** The Contractor may select this option if the luminaire manufacturing facility is within the state of Illinois. At the Manufacturer's facility, the Engineer shall select the luminaires to be tested and shall be present during the testing process. The Contractor shall schedule travel by the Engineer to and from the Manufacturer's laboratory to witness the performance of the required tests."

Add the following to Article 1067.02(a)(1) of the Standard Specifications:

"The beam of maximum candlepower for luminaires specified or shown to have a 'medium' distribution shall be at 70 degrees from the horizontal \pm 2.5 degrees. Submittal information shall identify the angle."

Revise Article 1067.06(a)(1) of the Standard Specifications to read:

"The lamps shall be of the clear type and shall have a color of 1900° to 2200° Kelvin."

Transportation Corridor
Beautification Project
Village of River Grove
Section No. 06-00087-00-SW

Revise Article 1067.06(a)(4) of the Standard Specifications to read:

Lamp Wattage	Initial Lumens	Mean Lumens	Rated Life (Hours)	Lamp Voltage
50	4,000	3,600	24,000	52
70	6,300	5,450	24,000	52
100	9,400	8,000	24,000	55
150	15,800	13,800	24,000	55
200	21,400	19,260	24,000	100
250	27,000	24,300	24,000	100
310	37,000	33,300	24,000	100
400	50,000	45,000	24,000	100
750	105,000	94,500	24,000	120

Revised 12/2/07

**IDOT DISTRICT 1 LUMINAIRE PERFORMANCE TABLE #1
Grand Avenue
4-Lane Section
New Pedestrian Pole and Fixture along
With Existing GE Fixture
Decorative Pole Spacing Location 1 (Approx Sta 18+00)**

GIVEN CONDITIONS

ROADWAY DATA	Pavement Width	40.5 (ft)
	Number of Lanes	4
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
		Existing/Proposed
LIGHT POLE DATA	Mounting Height	35/12 (ft)
	Mast Arm Length	8/0 (ft)
	Pole Set-Back From Edge of Pavement	3.5/7.0 (ft)
		Existing/Proposed
LUMINAIRE DATA	Lamp Type	HPS/HPS
	Lamp Lumens	37,000 */5,800
	I.E.S. Vertical Distribution	Medium/Medium
	I.E.S. Control Of Distribution	Cut-Off/Cut-Off
	I.E.S. Lateral Distribution	III/V
	Total Light Loss Factor	0.70/0.70
		Existing/Proposed
LAYOUT DATA	Spacing	180 (ft)/See Below
	Configuration	Opposite/Opposite
	Luminaire Overhang over edge of pavement	4.5/-7.0 (ft)

NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION	Ave. Horizontal Illumination, EAVE	1.70	Fc
	Uniformity Ratio, EAVE/EMIN	3.00	(Max)
LUMINANCE	Average Luminance, LAVE	1.20	Cd/m2
	Uniformity Ratio, LAVE/LMIN	3.00	(Max)
	Uniformity Ratio, LMAX/LMIN	5.00	(Max)
	Veiling Luminance Ratio, LV/LAVE	0.30	(Max)

* Existing Fixture Photometric File GE451002.IES

Decorative Poles will be opposite and centered between existing roadway poles which are spaced at 180'.

**Transportation Corridor
Beautification Project
Village of River Grove
Section No. 06-00087-00-SW**

**IDOT DISTRICT 1 LUMINAIRE PERFORMANCE TABLE #2
Grand Avenue
4-Lane Section
New Pedestrian Pole and Fixture along
With Existing GE Fixture
Decorative Pole Spacing Location 2 (Approx Sta 14+00)**

GIVEN CONDITIONS

ROADWAY DATA	Pavement Width	40.5 (ft)
	Number of Lanes	4
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA		Existing/Proposed
	Mounting Height	35/12 (ft)
	Mast Arm Length	8/0 (ft)
	Pole Set-Back From Edge of Pavement	3.5/7.0 (ft)
LUMINAIRE DATA		Existing/Proposed
	Lamp Type	HPS/HPS
	Lamp Lumens	37,000 */5,800
	I.E.S. Vertical Distribution	Medium/Medium
	I.E.S. Control Of Distribution	Cut-Off/Cut-Off
	I.E.S. Lateral Distribution	III/V
	Total Light Loss Factor	0.70/0.70
LAYOUT DATA		Existing/Proposed
	Spacing	164 (ft)/See Below
	Configuration	Opposite/Opposite
	Luminaire Overhang over edge of pavement	4.5/-7.0 (ft)

NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION	Ave. Horizontal Illumination, EAVE	1.70	Fc
	Uniformity Ratio, EAVE/EMIN	3.00	(Max)
LUMINANCE	Average Luminance, LAVE	1.20	Cd/m2
	Uniformity Ratio, LAVE/LMIN	3.00	(Max)
	Uniformity Ratio, LMAX/LMIN	5.00	(Max)
	Veiling Luminance Ratio, LV/LAVE	0.30	(Max)

* Existing Fixture Photometric File GE451002.IES

Decorative Poles will be opposite and located 39' from eastern most existing roadway poles which are spaced at 164'.

**IDOT DISTRICT 1 LUMINAIRE PERFORMANCE TABLE #3
Thatcher Avenue
5-Lane Section
Existing Roadway Luminaire Information Only**

GIVEN CONDITIONS

ROADWAY DATA	Pavement Width	<u>50.0 (ft)</u>
	Number of Lanes	<u>5</u>
	I.E.S. Surface Classification	<u>R3</u>
	Q-Zero Value	<u>.07</u>
		Existing/Proposed
LIGHT POLE DATA	Mounting Height	<u>35/12 (ft)</u>
	Mast Arm Length	<u>8/0 (ft)</u>
	Pole Set-Back From Edge of Pavement	<u>3.5/7.0 (ft)</u>
LUMINAIRE DATA	Lamp Type	<u>HPS/HPS</u>
	Lamp Lumens	<u>50,000 */5,800</u>
	I.E.S. Vertical Distribution	<u>Medium/Medium</u>
	I.E.S. Control Of Distribution	<u>Cut-Off/Cut-Off</u>
	I.E.S. Lateral Distribution	<u>III/V</u>
	Total Light Loss Factor	<u>0.70/0.70</u>
LAYOUT DATA	Spacing	<u>105/See Below (ft)</u>
	Configuration	<u>One Side/Opposite</u>
	Luminaire Overhang over edge of pavement	<u>4.5/-7.0 (ft)</u>

NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION	Ave. Horizontal Illumination, EAVE	<u>1.30</u>	Fc
	Uniformity Ratio, EAVE/EMIN	<u>3.00</u>	(Max)
LUMINANCE	Average Luminance, LAVE	<u>0.90</u>	Cd/m²
	Uniformity Ratio, LAVE/LMIN	<u>3.00</u>	(Max)
	Uniformity Ratio, LMAX/LMIN	<u>5.00</u>	(Max)
	Veiling Luminance Ratio, LV/LAVE	<u>0.30</u>	(Max)

* Existing Fixture Photometric File GE451002.IES

Decorative Poles will be opposite and centered between existing roadway poles which are spaced at 105 on one side.

SEWERAGE SYSTEM PERMIT
METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO
 100 EAST ERIE, CHICAGO, ILLINOIS, 60611
 312-751-5600

MWRDGC Permit

07-146

http://www.mwrdd.org

INSTRUCTIONS FOR COMPLETING PERMIT FORM: Submit four typed copies of permit application (eight pages) and any required schedules listed below; do not leave any blank spaces; use "X" for checking applicable information. Also submit four copies of location map and plans. Submit two copies of specifications, if specifications are not part of the plan sheets. Address all correspondence to the Local Sewer Systems Section; for any inquiries or assistance, telephone (312) 751-3260.

NAME AND LOCATION:

Name of project (as shown on Grand Avenue Streetscape Project)
 Location of Project (street address or with respect to two Grand Avenue (FAU 1376) from
Struckman Avenue to Hessing Street and Thatcher Avenue from River Grove Avenue to Arnold St.
 Municipality (Township, if River Grove, Illinois)

Sectio 26, 40 N, 12 E.
 Is project in MWRDGC combined Yes No

SERVICE BASIN
STICKNEY WRP

DOCUMENTS BEING SUBMITTED

- Basic Information (Required in all cases)Schedule A (Page 4 of 8)
- Sewer Summary (Required in all cases)Schedule B (Page 5 of 8)
- Sewer Connections (Required in all cases)Schedule C (Page 6 of 8)
- Detention FacilitiesSchedule D (2 Pages)
- Lift Station and/or Force MainSchedule E (1 Page)
- Characteristics of Waste DischargesSchedule F (1 Page)
- Treatment or Pre-treatment FacilitiesSchedule G (2 Pages)
- Certification Relative to Compliance with Art. 4-1, 6-2d, & 6-3bSchedule H (1 Page)
- Affidavit Relative to Compliance with Art. 4-1, 6-2d, & 6-3bSchedule J (1 Page)
- Affidavit of Disclosure of Property InterestSchedule K (2 Pages)
- Notice of Requirements for Storm Water DetentionSchedule L (2 Pages)
- Current Survey of Property InterestsExhibit A

OTHER DOCUMENTS: Indicate title, number of pages and originator 4 copies of: Cover
Index of Sheets, General Notes, Project Sheets (9,11, 12) and Detail Sheets (16-18) by EHE

NOTE: ATTACH FEE PAYMENT VOUCHER AND PAYMENT IF APPLICABLE

MWRDGC USE ONLY APR 13 2007 Permit issued: JUN 05 2007 WRP
 Application received: _____

GENERAL CONDITIONS OF THE PERMIT

1. **Adequacy of Design.** The schedules, plans, specifications and all other data and documents submitted for this permit are made a part hereof. The responsibility for the adequacy of the design shall rest solely with the Design Engineer and the issuing of this permit shall not relieve him of that responsibility. The issuance of this permit shall not be construed as approval of the concept or construction details of the proposed facilities and shall not absolve the Permittee, Co-permittee or Design Engineer of their respective responsibilities.
2. **Joint Construction and Operation Permits.** Unless otherwise stated by the Special Conditions, the issuance of this permit shall be a joint construction and operation permit provided all General, Standard and Special Conditions are complied with.
3. **Allowable Discharges.** Discharges into the sanitary sewer system constructed under this permit shall consist of sanitary sewage only. Unless otherwise stated by the Special Conditions, there shall be no discharge of industrial wastes under this permit. Storm waters shall not be permitted to enter the sanitary sewer system. Without limiting the general prohibition of the previous sentence, roof and footing drains shall not be connected to the sanitary sewer system.
4. **Construction Inspection.** All sewer construction shall be inspected and approved by a Registered Professional Engineer acting on behalf of the Permittee or the owner of the project, or by a duly authorized and competent representative of the Professional Engineer. No sewer trenches shall be backfilled except as authorized by the Inspection Engineer after having inspected and approved the sewer installation.
5. **Maintenance.** The sewer connections, lines, systems or facilities constructed hereunder or serving the facilities constructed hereunder shall be properly maintained and operated at all times in accordance with all applicable requirements. It is understood that the responsibility for maintenance shall run as a joint and several obligation against the property served, the owner and/or the operator of the facilities, and said responsibility shall not be discharged nor in any way affected by change of ownership of said property.

MWRDGC STANDARD CONDITIONS

6. **Indemnification.** The Permittee shall be solely responsible for and shall defend, indemnify and save harmless the Metropolitan Water Reclamation District of Greater Chicago (hereinafter MWRDGC) from and against any and all claims, costs, damages, or expenses the MWRDGC may suffer, incur, sustain or become liable for on account of any injury to, or death of, any person or persons, or any damage to, or destruction of, any real or personal property that may be caused by the

07-146
construction, use, state of repair, operation and maintenance of the proposed facilities arising out of or in consequence of the issuance of this permit. Without limiting the generality of the preceding sentence, the provisions of this paragraph shall extend to indemnify and save harmless the MWRDGC from any claims or damages arising out of or in connection with the termination or revocation of this permit.

7. **Construction by MWRDGC.** Permittee understands and acknowledges that the MWRDGC has the right and power to construct and extend sewer service facilities and render such services within the area to be served by the project for which this permit is issued, and that by the MWRDGC constructing and extending such sewer service facilities and rendering such services, the facilities constructed by the Permittee under this permit may decrease in value, become useless or of no value whatsoever, the Permittee may also sustain a loss of business, income and profits. Therefore, by accepting this permit and acting thereon, the Permittee, for itself, its successors and assigns, does remise, release and forever discharge the MWRDGC of any and all claims whatsoever which Permittee may now have or hereafter acquire and which Permittee's successors and assigns hereafter can, shall, or may have against the MWRDGC for all losses and damages, either direct or indirect, claimed to have been incurred by reason of the construction or extension at any time hereafter by the MWRDGC of sewer service facilities in the service area contemplated by this permit, the rendering of such services, which MWRDGC facilities and services decrease the value of the facilities constructed by the Permittee under this permit, make same useless or of no value whatsoever, including but not limited to, any and all damages arising under Illinois Revised Statutes, Chapter 42, Section 339; the taking of private property for public use without due compensation; the interference with the contracts of Permittee; the interference with Permittee's use and enjoyment of its land; and the decrease in value of Permittee's land.
8. **Third Parties.** This permit does not grant the right or authority to the Permittee: (a) to construct or encroach upon any lands of the MWRDGC or of any other parties (b) to construct outside of the territorial boundaries of the MWRDGC, (c) to construct or encroach upon the territorial boundaries of any units of local government within the MWRDGC, (d) to connect to or discharge into or be served by (directly or indirectly) any sewer or sewer system owned or operated by third parties.
9. **Costs.** It is expressly stipulated and clearly understood that the sewerage system or facilities for which this permit is issued shall be constructed, operated and maintained at no cost to the MWRDGC.
10. **Other Construction.** The MWRDGC reserves the right, privilege and authority to permit others to reconstruct, change, alter and replace all sewers an

appurtenances thereto at the point of connection of any sewerage system to an MWRDGC interceptor and/or in public right-of-ways of MWRDGC easements, and to introduce additional sewage flow through this connection into the intercepting sewer of said MWRDGC.

11. **Change of Use.** This permit shall be incorporated in the Building and Occupancy Permit for the building or buildings served under this permit. The owner or occupant of any building served under this permit shall not cause, or permit, a change of use of the building to a use other than that indicated in this permit without first having obtained a written permission from the General Superintendent of the MWRDGC.
12. **Interceptors Overloading.** The MWRDGC hereby serves notice that its interceptors may flow full and may surcharge, and flooding of the proposed system may occur. The Permittee agrees that the proposed systems shall be constructed, operated and maintained at the sole risk of the Permittee.
13. **Non-Transferability.** This permit may not be assigned or transferred without the written consent of the General Superintendent of the MWRDGC.
14. **Termination.** It is understood and agreed that in the event the Permittee shall default in or fail to perform and carryout any of the covenants, conditions and provisions of this permit and such default or violation shall continue for sixty (60) days after receipt or notice thereof in writing given by the General Superintendent of the MWRDGC, then it shall be lawful for the MWRDGC at or after the expiration of said sixty (60) days to declare said permit terminated. The Permittee agrees that immediately upon receipt of written notice of such termination it will stop all operations, discontinue any discharges and disconnect the sewerage system or facilities constructed under this permit. If the Permittee fails to do so, the MWRDGC shall have the right to disconnect said system. The Permittee hereby agrees to pay for any costs incurred by the MWRDGC for said disconnection. The various rights and remedies of the MWRDGC contained in this permit shall be construed as cumulative, and no one of them shall be construed as exclusive of any one or more of the others or exclusive of any other rights or remedies allowed by applicable rules, regulations, ordinances and laws. An election by the MWRDGC to enforce any one or more of its rights or remedies shall not be construed as a waiver of the rights of the MWRDGC to pursue any other rights or remedies provided under the terms and provisions of this permit or under any applicable rules, regulations, ordinances or laws.
15. **Expiration.** This permit shall expire if construction has not started within one (1) year from the date of issue. Construction under an expired permit is deemed construction without a permit. All construction under this permit shall be completed within two (2) years after start of construction. If conditions so warrant, an

extension may be granted. For publicly financed projects (e.g. special assessments) the one(1) year period indicated will be considered from the date of final court action.

07-146

16. **Revocation.** In issuing this permit, the MWRDGC has relied upon the statements and representations made by the Permittee or his agent. Any incorrect statements or representations shall be cause for revocation of this permit, and all the rights of the Permittee hereunder shall immediately become null and void.
17. **Advance Notice.** Prior to commencement of construction under this permit, the Permittee shall give the MWRDGC an advance notice of at least two working days. When advance notice is given, the Permittee shall provide the permit number, municipality and location.
18. **Compliance with Plans and Specifications.** All construction shall be in accordance with the plans and specifications submitted for this permit and made a part hereof. No changes in, or deviation from the plans and specifications which affect capacity, maintenance, design requirements, service area or permit requirements shall be permitted unless revised plans shall have been submitted to, and approved by the MWRDGC. The permit together with a set of the plans and specifications (revised plans and specifications, if any) shall be kept on the job site at all times during construction until final inspection and approval by the MWRDGC.
19. **Testing and Approval.** All construction under this permit shall be subject to inspection, testing and approval by the MWRDGC. All testing shall be made, or caused to be made, by the Permittee at no cost to the MWRDGC and in the presence of the MWRDGC representative. Upon satisfactory completion of construction, the Permittee and the owner shall submit, or cause to be submitted, a completion certificate and request for approval on the form prescribed by the MWRDGC. No sewer or other facilities shall be put in service until all the conditions of the permit have been satisfactorily met.
20. **Record Drawings.** Within sixty (60) days after final inspection and approval by the MWRDGC, the Permittee shall furnish, or cause to be furnished to the MWRDGC, a set of Record drawings, or a statement that the project was constructed in accordance with the original plans and specifications.
21. **Compliance with Rules and Regulations.** The Permittee here by expressly assumes all responsibilities for meeting the requirements of all applicable rules, regulations, ordinances and laws of Local, State and Federal authorities. Issuance of this permit shall not constitute a waiver of any applicable requirements.

SCHEDULE A
BASIC INFORMATION

MWRDGC Permit No.

07-146

1. NAME OF PROJECT Grand Avenue Streetscape Project
(as shown on the plans)

2. APPURTENANCES (check all applicable items)

- Siphon Drop Manholes
 Stream Crossing Direct Connections to MWRDGC

3. RECEIVING SANITARY SEWER SYSTEM

A. System that project will connect to is:

Existing Proposed /Under Construction → MWRDGC Permit # _____

B. List owners of all sewers from project to MWRDGC River Grove, IL

4. EXISTING LIFT STATION

No Yes → Receiving system includes existing lift station

If yes, indicate location _____

5. FLOOD PLAIN

Is any part of the project area in a flood plain?

No Yes → Percentage of area in flood plain NA %

Flood crest elevation NA ft.

Identify any manholes in flood plain: NA

6. SIZE OF PROJECT

- | | | |
|--|-----------|---------------------------------------|
| A. What is the size of this project? | <u>NA</u> | *Entire project located within R.O.W. |
| B. Total contiguous ownership, including project | <u>NA</u> | |
| C. Existing impervious area within project | <u>NA</u> | |
| D. New impervious area created within project | <u>NA</u> | |

7. DETENTION

A. Is detention provided under this permit?

No Yes → Detention required by: MWRDGC Other

B. Is project in the service area of existing detention reservoir?

No Yes → MWRDGC Permit No. _____

SCHEDULE B
SEWER SUMMARY
COMPLETE IN ALL CASES

MWRDGC Permit No. 07-148

PROJECT NAME: Grand Avenue Streetscape Project
(as shown on the plans)

1. Sewer Summary, including all building service sewers, stubs and risers:
 Include all sewers in combined sewer area
 Include all sanitary sewers in separate sewer area

Pipe Size in.	12							
Total length ft.	76							
Min. slope used %	2.00%							
Pipe Material *	PVC							
Sewer Type	Storm							
Total inlets (new)	3							
Total catch basins (new)	1							
Total comb. manholes (new)	0							

* Pipe material and joint specifications must be shown on plans. See Manual of Procedures for acceptable specifications.

2. NATURE OF PROJECT (Check all that apply)

- Project is publicly financed
- Sewer system serving a subdivision
- Off-site trunk sewer to serve subdivision
- Sewer extension to serve future development
- Storm sewers in combined sewer area
- Service connections to serve buildings (Schedule C)
- Other _____

3. SEWER EXTENSIONS

If any part of the proposed project is designed to service future connections (not included in Schedule C), check yes below and submit service area map and estimate of population equivalent to be served.

- NO
- YES → Service area map
- P.E. estimate submitted

56

revised 12/21/07

SCHEDULE - C

MWRDGC Permit No.

07-146

SEWER CONNECTIONS

(FILL OUT ALL SECTIONS THAT APPLY)

1. BUILDING CONNECTION DATA

A. RESIDENTIAL BUILDINGS

No PROPOSED SANITARY CONNECTIONS

<input type="checkbox"/> Single Family	Total dwelling units *	_____	
	Number of sewer connections *	_____	PE** _____
<input type="checkbox"/> Multi Family	Total dwelling units *	_____	
	Number of sewer connections *	_____	PE** _____

B. COMMERCIAL & RECREATIONAL BUILDINGS

<input type="checkbox"/> Number of sewer connections	_____	PE** _____
--	-------	------------

C. INDUSTRIAL BUILDINGS

<input type="checkbox"/> Number of sewer connections	_____	PE** _____
--	-------	------------

* Each sanitary line exiting a building is a connection
** Population Equivalent

2. BUILDING USE - (Check all that apply)

A. COMMERCIAL & RECREATIONAL

- Food preparation or processing (install grease separator)
- Auto service (install triple basin)
- Auto wash (install mud basin)
- Swimming pool (provide pool plans)
- Other _____

B. INDUSTRIAL BUILDINGS

- Sewer connections will receive domestic sewage only
- Industrial waste is produced

NOTE: If industrial waste is produced, submit Schedule F & Schedule G and plumbing plans along with flow diagram for pretreatment system.

ENGINEERING CERTIFICATIONS

MWRDGC Permit No. _____

07-146

CERTIFICATE BY DESIGN ENGINEER: I hereby certify that the project described herein has been designed in accordance with the requirements set forth in this application and all applicable ordinances, rules, regulations, Local, State and Federal laws, and design criteria of the issuing authority; that the storm drainage and sanitary sewer system designed for this project are proper and adequate; that where the design involves one or more connections to a existing local sewer system, the capacity of said system has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: _____

Engineering Firm: Edwin Hancock Engineering Co. Telephone: 708-865-0300

Address: 9933 Roosevelt Road City: Westchester Zip: 60154

Signature: *Derek Treichel* Date: 02/09/07
Derek Treichel, P.E. (Name and Title)

CERTIFICATE BY MUNICIPAL OR SYSTEM ENGINEER: The application and the drawings, together with other, data being submitted with this application, have been examined by me and are found to be in compliance with all applicable requirements. The manner of drainage is satisfactory and proper. The existing local sewer system to which the project discharges has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

I hereby certify that the project area is within the municipal corporate limits. YES NO

Owner of Local Sewer System: ██████████ VILLAGE OF RIVER GROVE

Municipal Engineer: Edwin Hancock Engineering Telephone: 708-865-0300

Address: 9933 Roosevelt Road City: Westchester Zip: 60154

Signature: *Derek Treichel* Date: 02/09/07
Derek Treichel, P.E. (Name and Title)

CERTIFICATE INSPECTION ENGINEER: I hereby certify that construction of the project will be in substantial compliance with the data and the plans submitted with this application; that approval will be obtained from the issuing authority prior to making any changes that would affect capacity, maintenance, design requirements, service area or the permit requirements; that a set of RECORD drawings, signed and sealed by the undersigned Engineer will be furnished to the MWRDGC within sixty (60) days after testing and approval by the District of the completed work.

Engineering Firm: Edwin Hancock Engineering Telephone: 708-865-0300

Address: 9933 Roosevelt Road City: Westchester Zip: 60154

Signature: *Derek Treichel* Date: 02/09/07
Derek Treichel, P.E. (Name and Title)

SPECIAL CONDITIONS

MWRDGC Permit No.

07-146

This permit is issued subject to the MWRDGC's General Conditions, Standard Conditions and the following Special Conditions:

NONE SEE ATTACHED

If permit is granted:

Please return two (2) copies of the permit to the Permittee; or

Please mail one (1) copy to Permittee and one (1) copy to the person designated below:

Name: Brent Taylor, Engineer

Address: 9933 Roosevelt Road, Westchester, Illinois 60154

CERTIFICATE BY APPLICANTS: We have read and thoroughly understand the conditions and requirements of this permit application, and agree to conform to the permit conditions and other applicable requirements of the MWRDGC. It is understood that construction hereunder, after the permit is granted, shall constitute acceptance by the applicants of any Special Conditions that may be placed hereon by the MWRDGC. It is further understood that this application shall not constitute a permit until it is approved, signed and returned by the Chief Engineer of the MWRDGC.

PERMITTEE	CO-PERMITTEE
The project area is within municipal corporate limits. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	(Co-Permittee is Property Owner) Title to permit is held in a land trust: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Co-Permittee shall be beneficiary with Power of Direction
Municipality <u>Village of River Grove</u>	Owner _____
Address <u>2621 N. Thatcher Avenue</u>	Address _____
City <u>River Grove</u> Zip <u>60171</u>	City _____ Zip _____
Signature <u>[Signature]</u> <u>4-11-07</u>	Signature _____
Name <u>Frank Calistro</u> (Type or Print)	Name _____ (Type or Print)
Title <u>Comptroller</u>	Title _____
Date <u>4/11/07</u> Phone <u>708-453-8000</u>	Date _____ Phone _____

REVIEW AND APPROVAL BY THE MWRDGC

Reviewed by: [Signature] Date: JUN 01 2007
(Local Sewer Systems)

Approved for Issue:
Approved by: [Signature] Date: JUN 05 2007
(For the Chief Engineer)

59
revised 12/21/07

SPECIAL CONDITION FOR MWRD PERMIT NO. 07-146

1. Construction under this permit consists of storm sewers only.