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## **Appendix**

City Map

Plan Sheet

Alley Paving - Asphalt and Concrete Construction Cost Estimate

Porous Concrete - Typical Section

Porous Concrete - Construction Cost Estimate

Overall Cost Spreadsheet

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## Introduction/Scope of Program

This report is a follow-up to the Feasibility Study for paving Minneapolis Residential Alleys dated February 2008. The report identified the 81 remaining residential unpaved alleys in the City of Minneapolis (City), defined the need for a program to pave them, and provided a recommendation for a program to accomplish this.

This final report further defines those recommendations, updates the cost estimates for this program, and recommends a definitive capital program and a time frame to accomplish this work. It also defines the recommendation for alley vacations, retaining wall construction, and storm water management options, including pervious pavements.

### Scope of Program

The original report was based on the 81 remaining unpaved alleys identified by the City at that time. Since then, one of these alleys, #1015 in the 2<sup>nd</sup> ward from 12<sup>th</sup> to 13<sup>th</sup> Ave SE, has been paved in conjunction with a housing development project and removed from the program. An additional alley (#1011) was determined to not be a public alley. The 79 remaining unpaved residential alleys are identified on the City map included in the Appendix.

## Possible Alley Vacations

The Feasibility Study identified 14 alleys that could be considered for possible vacation. In further investigation of these possibilities, in addition to discussions with City Public Works staff, we have made the following revisions:

- Alley #1011 was determined not to be a public alley and removed from the program
- Alley #1015 has been paved and removed from the program.
- Alley #9358 is no longer considered a candidate for vacation.
- Alleys #9376, #8291, and #4106 have been added to the list of alleys that could possibly be vacated.

This leaves 14 alleys that remain under consideration for vacation. These revisions are all included in Table 1.

<b>Alley No.</b>	<b>Location</b>	<b>Description</b>
9545	1 <sup>st</sup> Ward #9, Monroe & 27 <sup>th</sup>	Possibly vacate, only serves two properties it splits. Will need a shared agreement between the two property owners
9376	1 <sup>st</sup> Ward #12, Buchanan & Broadway	Possible vacate south portion off Broadway
1020	1 <sup>st</sup> Ward #15, Talmadge & 21-22 <sup>nd</sup>	Grass, dead end alley. Will need shared easement agreement
1045	2 <sup>nd</sup> Ward #1, 12-13 <sup>th</sup>	Possibly vacate west of 12 <sup>th</sup>
1017	2 <sup>nd</sup> Ward #3, 17-18 <sup>th</sup> & Elm	East-west alley north of Elm, serves as access to apartment parking lots. May need to do cooperative agreement between complex owners, if vacated. Currently east end is closed (no street access)
8291	3 <sup>rd</sup> Ward #7, 11-12 <sup>th</sup> & 8 <sup>th</sup> Street	Should vacate north-south leg
9373	4 <sup>th</sup> Ward #5, 53 <sup>rd</sup> Ave N. & West of Penn	Should vacate south half
9326	4 <sup>th</sup> Ward #6, 44-45 <sup>th</sup> & Irving-James	Keep north portion at Irving & 45 <sup>th</sup> . Possible vacate south portion at James & 44 <sup>th</sup>
4116	6 <sup>th</sup> Ward #2, 22 <sup>nd</sup> & 12 <sup>th</sup>	Possibly vacate
4106	7 <sup>th</sup> Ward #3, Cedar Lake & Hawthorne	Possibly vacate one leg
8856	9 <sup>th</sup> Ward #2, 30 <sup>th</sup> & Lake	Possibly vacate. Access can be either North access at Lake Street or East Access on 30 <sup>th</sup> Ave
4144	9 <sup>th</sup> Ward #3, 34 <sup>th</sup> & Snelling	Possibly vacate, depending on who owns what
4126	13 <sup>th</sup> Ward #1, 30 <sup>th</sup> ½ & Lakeshore Drive	Should vacate to parcel on east side
1003	13 <sup>th</sup> Ward #4, 44 <sup>th</sup> & Xerxes	Possibly vacate east portion, east part is used as a parking lot

## Retaining Walls

This report has further defined the length and height of the 20 retaining walls identified in the feasibility report as needed to accomplish this program. The cost estimate spreadsheet included in the Appendix that has been adjusted to reflect this information. The details for each wall are shown on Table 2.

Alley No.	Location	Description
9341	1 <sup>st</sup> Ward #2, 35 <sup>th</sup> & Benjamin/McKinley	70'x3' Timber wall on east side - poor condition
7803	1 <sup>st</sup> Ward #4, 35 <sup>th</sup> & Architect	Stone wall - poor condition. 65'x15' shotcrete wall - very poor. Steep bank could use wall, 100'x5'. Large poured walls on both sides.
9545	1 <sup>st</sup> Ward #9, Monroe & 27 <sup>th</sup>	75'x3' Timber wall east side, south end - poor condition
9376/9377	1 <sup>st</sup> Ward #12, 14 <sup>th</sup> & Pierce	Small block wall on east side - not needed
9485	2 <sup>nd</sup> Ward #5, 6-7 <sup>th</sup> Street & 26-27 <sup>th</sup> Ave	75'x4', 24'x4', 42'x4' block walls - leaning, poor condition
9484	2 <sup>nd</sup> Ward #6, 7 7-8 <sup>th</sup> Street & 26-27 <sup>th</sup> Ave	36'x3, 40'x3' walls east end - poor condition, maybe encroaching
1000	2 <sup>nd</sup> Ward #8, Malcolm & Melbourne	100'x5', 6''x6'' timber wall north side - fair condition. 90'x4' rock wall south side - fair condition
1044	2 <sup>nd</sup> Ward #9, Arthur & Seymour	12'x2', 30'x4', block, stone walls east side - poor condition. Need 24'x2' & possibly a 70'x2.5'
9481	2 <sup>nd</sup> Ward #10, Arthur & Cecil	39'x4', 111'x6' brick & block - all about to fall down
9448	3 <sup>rd</sup> Ward #1, 6-4 <sup>th</sup> St & 31-30 <sup>th</sup> Avenue	Poured concrete wall at east end - good condition
9560	3 <sup>rd</sup> Ward #4, 14 <sup>th</sup> & Grand	18'x3.5' timber wall south end - fair condition
9360	4 <sup>th</sup> Ward #8, 43 <sup>rd</sup> & Fremont	30'x2', 30'x2' block walls - fair condition
9304	5 <sup>th</sup> Ward #2, 23 <sup>rd</sup> & Irving	Large block wall for school - good condition
9590	7 <sup>th</sup> Ward #5, Sheridan & Kenwood Pkwy	60'x3', 45'x3' timber and brick walls - fair condition
9321	10 <sup>th</sup> Ward #1, 25 <sup>th</sup> & Irving	Block wall is non-issue
6397	11 <sup>th</sup> Ward #1, Highview & Gladstone	Many walls, many types - all in good shape
7110	11 <sup>th</sup> Ward #2, 56 <sup>th</sup> & Nicollett	Few different walls - good condition
9398	13 <sup>th</sup> Ward #2, 38 <sup>th</sup> & Washburn	One timber wall & one stone wall 30'x4' - poor condition. Need 21'x2' wall
7707	13 <sup>th</sup> Ward #6, 39 <sup>th</sup> & Thomas	30'x40' long stone & timber walls - fair cond. & non issue
9434	8 <sup>th</sup> Ward, 41 <sup>st</sup> & Clinton	May need a couple walls on east side, not included in cost estimate

## Storm Drains

The feasibility study identified 20 alleys with existing or potential storm drain requirements. Nine of these were alleys with existing storm drains that should remain and be either adjusted to grade and/or reconstructed as necessary. The remaining 11 alleys were surveyed to determine if new storm drainage structures would be needed. One of the alleys will not need a new storm drain and an existing drain was discovered in one of the alleys. The remaining nine alleys will each require the installation of a mid-alley storm drain on multiple storm drains in order to be paved. We have also checked the availability of existing city storm sewer in the adjacent streets to determine where connections could be made. The final tabulation is that 10 alleys have existing mid-block drains that will need adjustments and nine alleys will require new mid-alley storm drains. For the one remaining alley in this group, a new profile will provide adequate drainage. This alley, #9529, would be a good candidate for the addition of a rain garden. Alley's #1035 and #4101 are also potential candidates for rain gardens. The estimated costs for needed storm drains have been included in the cost spreadsheet in the Appendix. The details for each alley storm drain requirements are shown in Table 3.

**Table 3 —Alley Storm Drain Requirements**

Alley No.	Location	Description
9529	1 <sup>st</sup> Ward #1, Johnson & 36 <sup>th</sup> Ave	May have some drainage issues, new profile will provide drainage
1031	1 <sup>st</sup> Ward #6, 30 <sup>th</sup> & California	Will need 2 drainage structures & approx. 550' of pipe
9540	1 <sup>st</sup> Ward #7, Lowry & California	Will need 3 drainage structures & approx. 320' of pipe
9376	1 <sup>st</sup> Ward #12, 14 <sup>th</sup> & Pierce	Will need 4 drainage structures & approx. 180' of pipe
9518	1 <sup>st</sup> Ward #14, Garfield & 14 <sup>th</sup>	Existing storm drain, may need adjustment or reconstruct
9309	3 <sup>rd</sup> Ward #3, 16 <sup>th</sup> & Main	Will need 2 drainage structures & approx. 300' of pipe
9555	3 <sup>rd</sup> Ward #5, 7 <sup>th</sup> & Main	Existing storm drain, may need adjustment or reconstruct
1035	3 <sup>rd</sup> Ward #6, Summer & Park	Will need 1 drainage structures & approx. 250' of pipe
9360	4 <sup>th</sup> Ward #8, Fremont & 43 <sup>rd</sup>	Existing storm drain, may need adjustment or reconstruct
9357	4 <sup>th</sup> Ward #9, 43 <sup>rd</sup> & Emerson	Existing storm drain, may need adjustment or reconstruct
9330	4 <sup>th</sup> Ward #10, 41 <sup>st</sup> & James	Will need 4 drainage structures & approx. 350' of pipe
9578	5 <sup>th</sup> Ward #1, Walton & 24 <sup>th</sup>	Will need 2 drainage structures & approx 360' of pipe
9388	7 <sup>th</sup> Ward #2, Hawthorne & Thomas	Existing storm drain, may need adjustment or reconstruct
7942	7 <sup>th</sup> Ward #4, Edin Pl & Lakeview	2-Existing storm drains, may need adjustment or reconstruct
4101	7 <sup>th</sup> Ward #8, 28 <sup>th</sup> & Xerxes	Will need 1 drainage structure & approx. 250' of pipe
8935	9 <sup>th</sup> Ward #1, 32 <sup>nd</sup> Ave & 29 <sup>th</sup> Street	Existing storm drain, may need adjustment or reconstruct
9321	10 <sup>th</sup> Ward #1, 25 <sup>th</sup> & Irving	Existing storm drain, may need adjustment or reconstruct
7110	11 <sup>th</sup> Ward #2, 56 <sup>th</sup> & Nicollett	Existing storm drain, may need adjustment or reconstruct
9415	11 <sup>th</sup> Ward #3, 57 <sup>th</sup> & Pillsbury	Will need 2 drainage structures & approx. 300' of pipe
7707	13 <sup>th</sup> Ward #6, 39 <sup>th</sup> & Thomas	Existing storm drain, may need adjustment or reconstruct



## Pervious Pavement

As stated in the feasibility report, the City may want to consider using pervious pavement as a storm water management measure in at least some of the alleys that would be constructed as part of this program. Pervious pavement surfaces can be created in a number of ways such as using porous concrete or asphalt pavement, porous pavers or grid system paving for the alley surface.

The primary benefit of pervious pavements is that they provide localized management of Stormwater runoff by providing a means of infiltration of most low and moderate rainfall events. This decreases the demand on the in place storm drain system as well as filtering pollutants and recharging ground water. Pervious pavements do have an initial cost that is approximately 50 percent more than the cost of traditional paving. In the ten alleys where additional storm sewer work will be required, utilization of pervious pavements may result in a more cost effective overall solution for storm water management at these locations. Additional analysis outside the scope of this report would be needed in order to more definitely determine this.

Other locations could also be considered for pervious pavements. Some of the criteria that should be considered in determining which alleys would be the best choice for installing the pervious pavement surfaces are:

- The permeability of the underlying subgrade material
- The grade and alignment of that particular alley
- Adjacent land uses - paved and/or landscaped surfaces as opposed to gravel parking areas or underdeveloped property
- Does the alley have existing storm drains

It would be our recommendation that if an alley paving program is adopted, that during the development of site specific plans for each year, consideration be given to use pervious pavements where appropriate. We would also recommend that assessments for alley paving be maintained at the adopted uniform rate and that any increased costs for pervious pavements be paid by the City thru either storm drain funds or other capital funding.

It is our recommendation that the use of porous concrete would be the preferred option for pervious pavement if this technology is chosen for some alleys.

Additional information regarding the probable typical section and estimated costs for pervious pavements are included in the Appendix.

## Cost Estimates

The construction cost estimates for both concrete and asphalt alley construction from the feasibility study are included in the Appendix. We have also included a construction cost estimate for pervious pavement alternatives.

The estimated overall alley paving program costs have been adjusted from the amounts identified in the feasibility study to reflect the following changes:

- Delete Alley #1015 - Recently Paved
- Delete Alley #1011 - Not in Public Right-of-Way
- Add 150 foot north-south leg to Alley #1017

These changes result in an overall estimated cost of this program in today's (2008) dollars of \$4,757,559. This information is shown in Table #4.

Table 4 — Estimated Alley Paving Program Costs				
	Cost	Assessed	City Capital Funds	City Storm Drain Funds
Basic Concrete Alley Paving	\$4,136,799	\$2,895,759	\$1,241,040	
Retaining Walls	\$348,660	\$348,660		
Storm Drains	\$272,100			\$272,100
<b>Totals:</b>	<b>\$4,757,559</b>	<b>\$3,244,419</b>	<b>\$1,241,040</b>	<b>\$272,100</b>

These estimated costs would be further reduced by final decisions on the possible alley vacations. This charge could range from zero if none are vacated to \$681,145 if all 15 are vacated.

## Funding Recommendations

Our basic recommendations for a funding policy to accomplish the paving of the City's unpaved residential alleys remain the same as stated in the feasibility report. The logic and rationale for these recommendations are also presented in the feasibility study.

Below is a summary of the funding recommendations:

- The City continues with a policy of assessing 100 percent of the cost for new alley construction against the benefiting property owners.
- The City should establish a uniform rate for “normal” alley construction.
- If costs are incurred due to difficult or unusual conditions that any costs above the established uniform rate will be funded by the City.
- The City will assume the paving costs that would be borne by any non-assessable property.
- Costs for any retaining walls that are needed to pave an alley would be an additional assessment to those benefiting property owners. This additional assessment should be limited to 25 percent of the uniform rate for the alley paving and that the City will assume responsibility for any costs more than that amount.
- Any Alley storm drains that are needed should continue to be funded by the City through the miscellaneous storm drain fund.

## Conclusions

The other changes that are included in this final report are:

- Field surveys were conducted to more accurately determine the need for storm drains.
- The need for retaining walls was reviewed and a more precise determination was made of the length and height of any retaining walls that are needed.
- One of the alleys originally included has been paved #1015 and one other alley #1011 was determined to not be a public alley, thus reducing the number of alleys in this program to 79.
- The overall program costs have been adjusted to reflect these changes.

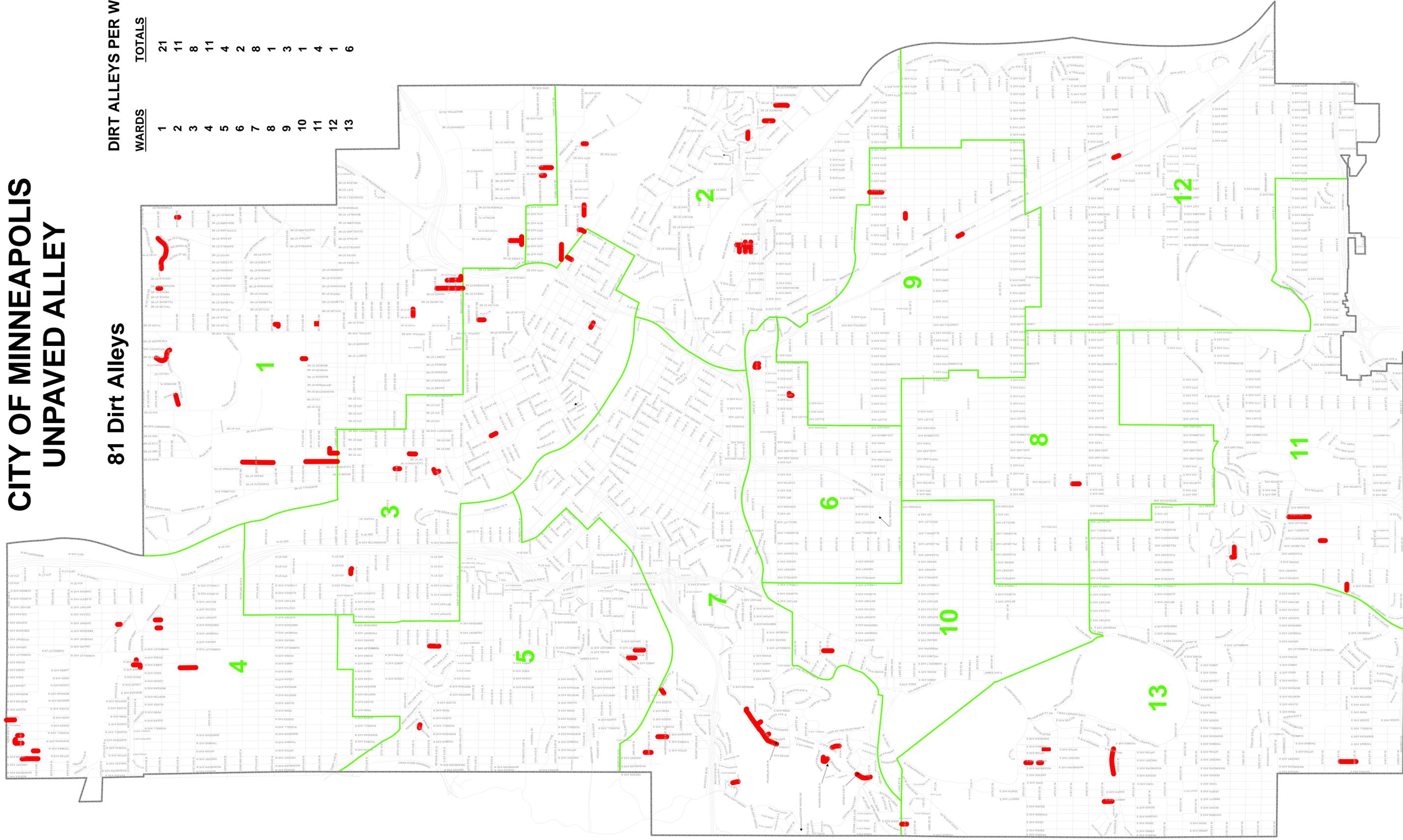
It is recommended that the City adopt and approve a 10-year capital program to accomplish the permanent vacation or paving of the 79 remaining unpaved residential alleys in the City.

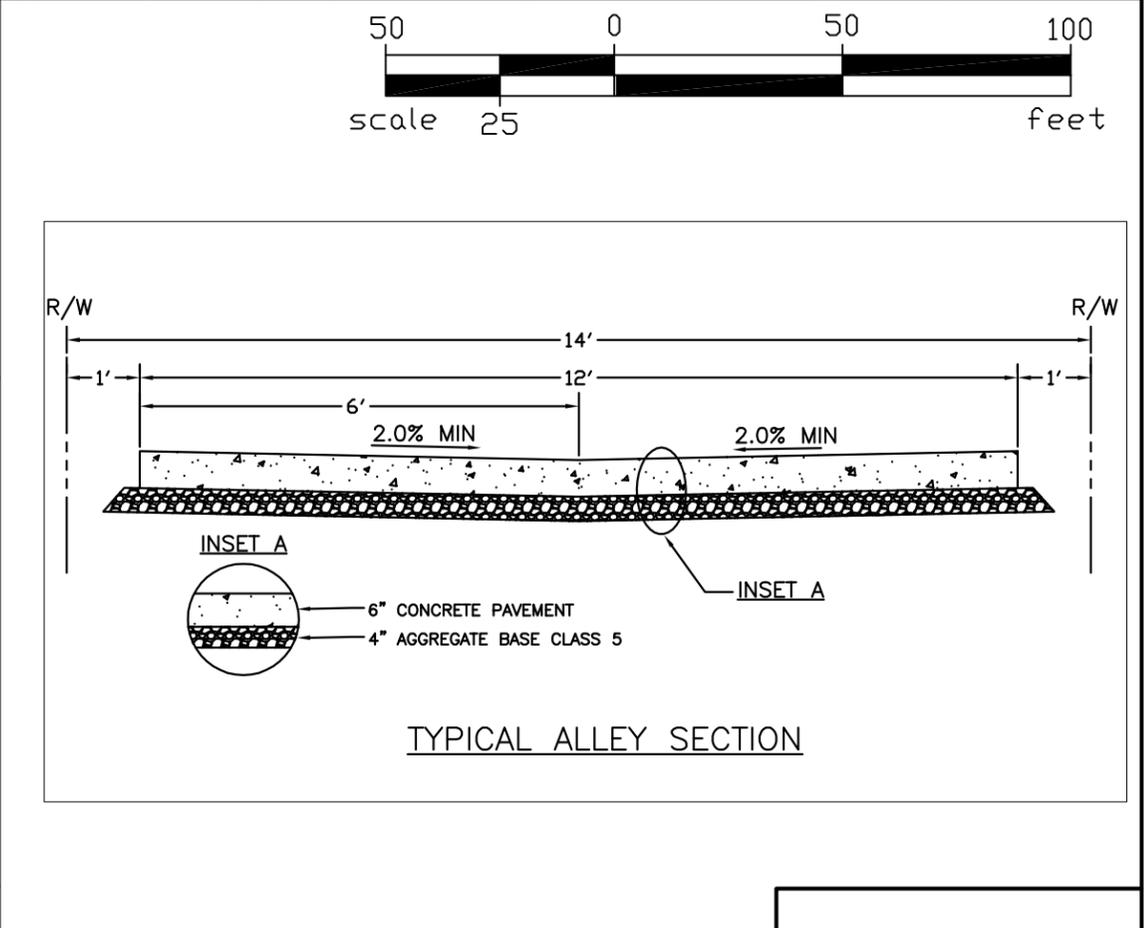
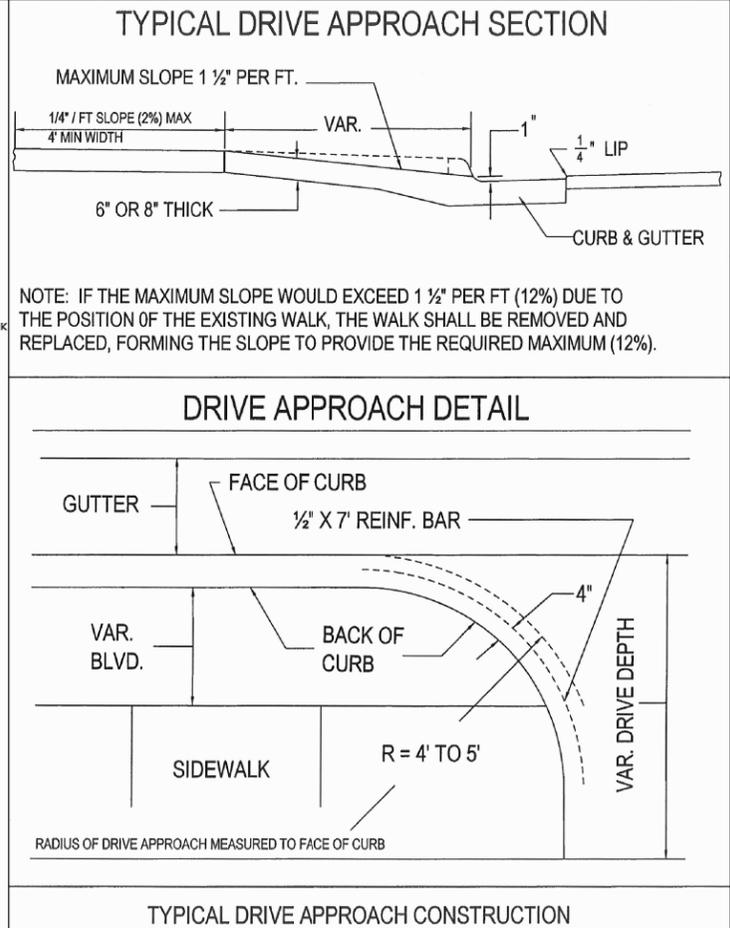
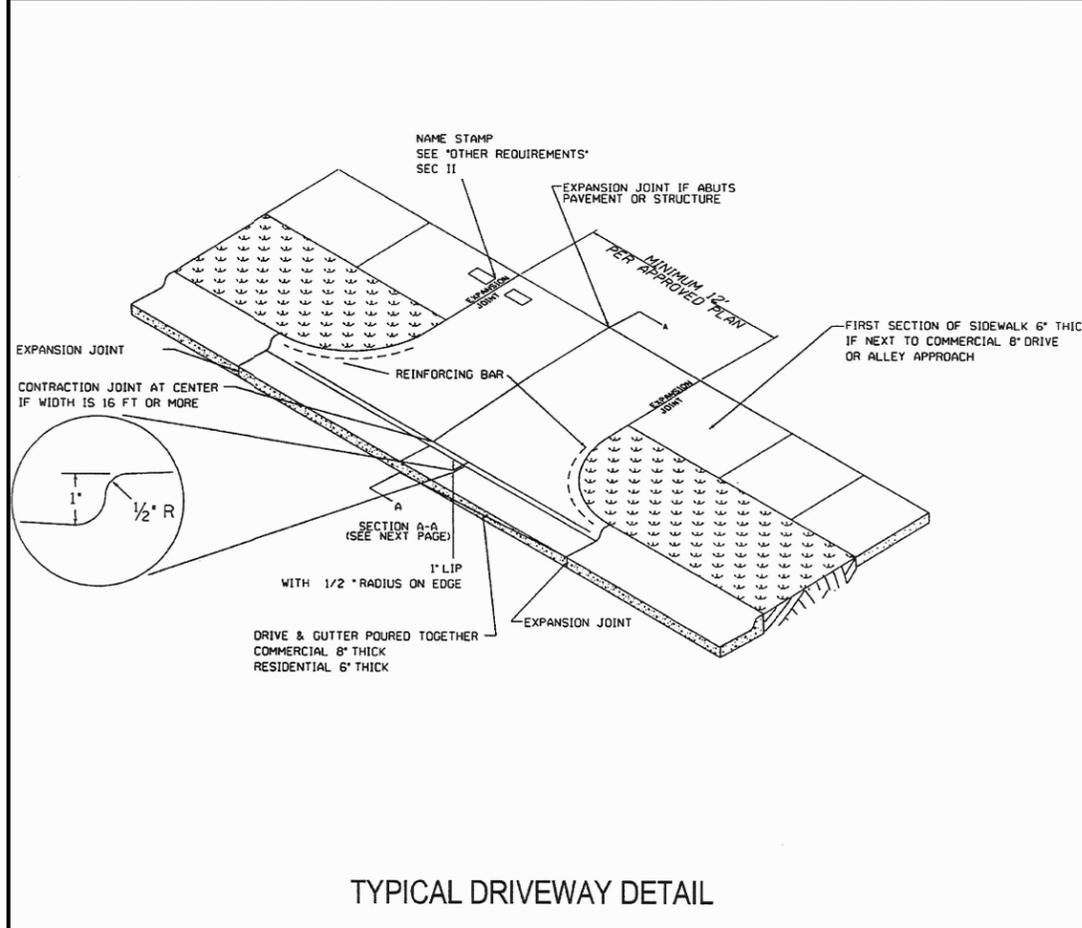
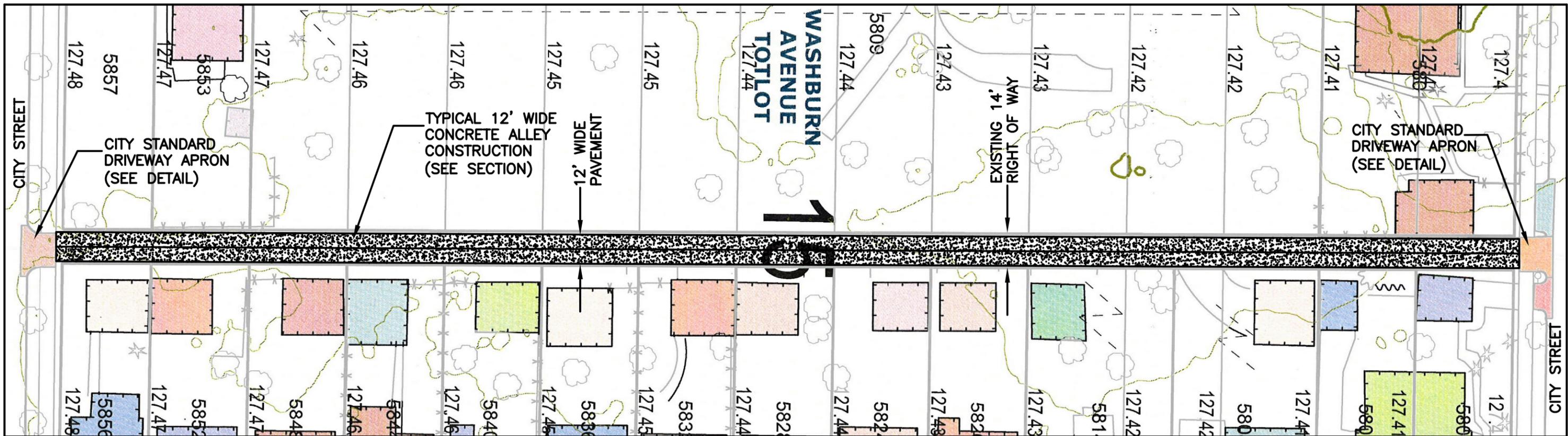
# CITY OF MINNEAPOLIS UNPAVED ALLEY

## 81 Dirt Alleys

### DIRT ALLEYS PER WARD

WARDS	TOTALS
1	21
2	11
3	8
4	11
5	4
6	2
7	8
8	1
9	3
10	1
11	4
12	1
13	6





DESIGNER: JMG  
 CHECKED BY: JMG  
 APPROVED BY: BJL  
 DESIGN TEAM

NO.	BY	DATE	REVISIONS

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CITY OF MINNEAPOLIS  
 ALLEY REHABILITATION

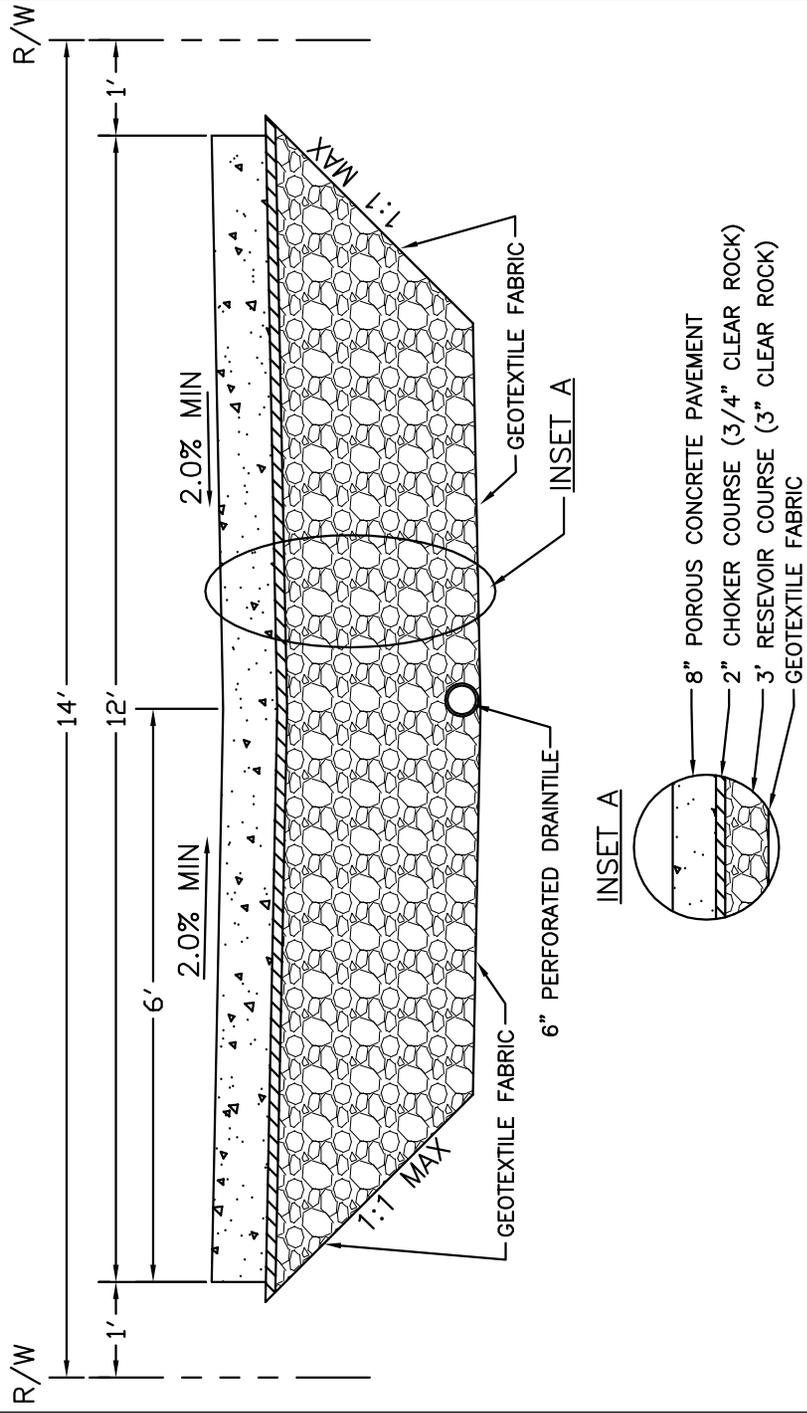
TYPICAL ALLEY  
 CONSTRUCTION

FILE NO.	1
AMPLS00801.00	
DATE	01/21/08

Concrete Option — Construction Cost						
Item No.	Item Description	Units	Unit Price	Qty.	Cost	Remarks
1	Mobilization	LS	\$5,000	1	\$5,000	
2	Remove Pavement	SY	\$5	800	\$4,000	600'x12'
3	Remove Concrete Alley Approach	SY	\$9	44	\$396	14'x14', 2 approaches
4	Sawcut Pavement	LF	\$4	300	\$1,200	
5	Common Excavation	CY	\$13	290	\$3,770	12"Dx13'Wx600'L
6	Aggregate Base Class 5	TON	\$25	185	\$4,625	4"
7	Concrete Pavement	SY	\$50	800	\$40,000	6"
8	Concrete Alley Approach	SY	\$63	44	\$2,772	22SY ea. 8" Conc & 4" Class 5
9	Match Property (Driveway or Yard)	LS	\$15,000	1	\$15,000	
<b>Subtotal - Construction</b>					<b>\$76,763</b>	
10% Contingency					\$7,676	
<b>Total Alley Cost</b>					<b>\$84,439</b>	<b>Equates to \$140.73/LF</b>

Asphalt Option — Construction Cost						
Item No.	Item Description	Units	Unit Price	Qty.	Cost	Remarks
1	Mobilization	LS	\$5,000	1	\$5,000	
2	Remove Pavement	SY	\$5	800	\$4,000	600'x12'
3	Remove Concrete Alley Approach	SY	\$9	44	\$396	14'x14', 2 approaches
4	Sawcut Pavement	LF	\$4	300	\$1,200	
5	Common Excavation	CY	\$13	245	\$3,185	12"Dx13'Wx600'L
6	Aggregate Base Class 5	TON	\$25	245	\$6,125	4"
7	Asphalt Pavement	TON	\$110	90	\$9,900	6"
8	Concrete Alley Approach	SY	\$63	44	\$2,772	22SY ea. 8" Conc & 4" Class 5
9	Match Property (Driveway or Yard)	LS	\$15,000	1	\$15,000	
<b>Subtotal - Construction</b>					<b>\$47,578</b>	
10% Contingency					\$4,758	
<b>Total Alley Cost</b>					<b>\$52,336</b>	<b>Equates to \$87.23/LF</b>





POROUS CONCRETE PAVEMENT  
TYPICAL ALLEY SECTION

(NO SCALE)

Short Elliott Hendrickson, Inc.  
Butler Square Building  
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Minneapolis, MN 55403  
612.758.6700

FILE NO.  
AMPLS00801.00

DATE:  
12/30/08

**POROUS CONCRETE PAVEMENT**  
**TYPICAL ALLEY SECTION**  
MINNEAPOLIS, MN



**Porous Concrete Option - Construction Cost**

Item No.	Item Description	Units	Unit Price	Qty.	Cost	Remarks
1	Mobilization	LS	\$5,000	1	\$5,000	
2	Remove Pavement	SY	\$5	800	\$4,000	600'x12'
3	Remove Concrete Alley Approach	SY	\$9	44	\$396	14'x14', 2 approaches
4	Sawcut Pavement	LF	\$4	300	\$1,200	
5	Common Excavation	CY	\$13	1,011	\$13,143	42"Dx13'Wx600'L
6	Rock Infiltration/Filtration Bed (3" rock)	CY	\$30	867	\$26,010	36"Dx13'Wx600'L
7	Porous Concrete pavement	SY	\$60	800	\$48,000	8" Thick
8	Concrete Alley Approach	SY	\$63	44	\$2,772	22SY ea. 8" Conc & 4" Class 5
9	Drain tile/Perforated Underdrain	LF	\$5	600	\$3,000	6" pipe
10	Geotextile Fabric	SY	\$3	800	\$2,400	
11	Match Property (Driveway or Yard)	LS	\$15,000	1	\$15,000	
<b>Subtotal - Construction</b>					<b>\$120,921</b>	
10% Contingency					\$12,092	
<b>Total Alley Cost</b>					<b>\$133,013</b>	<b>Equates to \$221.69/LF</b>

*Note: Costs based on Feasibility Study for Paving Minneapolis Residential Alley's dated February 20, 2008 (page 13) and using 2008 dollars.*

**Additional Porous/Permeable Pavement Options**

\*\* Insert one of the following options into line 7 above

Item No.	Item Description	Units	Unit Price	Qty.	Cost	Remarks
7	Porous Asphalt	SY	\$15	800	\$12,000	4" thick porous asphalt pavement
7	Permeable Concrete Pavers	SF	\$5	7200	\$36,000	





ALLEY ID	PART	LIMIT1	LIMIT2	LIMIT3	LIMIT4	WARD	TYPE	COMMENTS	FROM	TO	R/W WIDTH	ALLEY LENGTH (APPROX)	CURRENT CONDITION	CONCRETE PAVEMENT COSTS	STRUCTURE COSTS	PIPE QTY. (LF)	POSSIBLE BASIN OR POND COSTS	TOTAL SEWER COSTS	RETAINING WALL- AREA (SF) & COSTS	TOTAL COST	
7110	A	NICOLLET AVE	1ST AVE S	56TH ST E	DIAMOND LK RD E	11TH WARD, #2	STRAIGHT	EXISTING STORM SEWER INLET AT MID BLOCK, FEW DIFFERENT WALLS ALL IN DECENT SHAPE.	56TH ST E	55TH ST E	14	800	DECENT AC PAVEMENT	\$112,800.00	\$500			\$500		\$113,300	
7535	A	SHERIDAN AVE N	RUSSELL AVE N	52ND AVE N	53RD AVE N	4TH WARD, #4	DEAD END				14	182	POOR AC PAVEMENT	\$25,662.00						\$25,662	
7707	A	THOMAS AVE	UPTON AVE	39TH AVE	40TH AVE	13TH WARD, #6	DEAD END	FIRST 30'-40' OF NORTH END HAS TIMBER WALL ON EAST SIDE AND STONE/CONCRETE WALL ON THE WEST SIDE BOTH IN FAIR CONDITION, HAS AN EXISTING STORM SEWER INLET AT MID ALLEY. WALLS ARE NON ISSUE FOR ALLEY CONSTRUCTION.			14	230	POOR AC PAVEMENT AND GRAVEL	\$32,430.00	\$500			\$500		\$32,930	
7803	A	VALLEY ST	ARCHITECT AVE NE	COLUMBIA BLVD	36TH AVE NE	1ST WARD, #4	COMPLEX	SERVES 4 PROPERTIES, WALLS ON BOTH SIDES, LARGE POURED CONCRETE WALLS, VERY POOR SPRAYED CONC WALL 65'X15' @ #3522, DECENT POURED CONC WALL @ #817 & 3514 ON VERY EDGE OF ALLEY, ENCROACHMENTS ON SOUTH END INCLUDE FENCES, BUILDINGS, BRUSH AND STEEP HILL. STEEP BANK COULD USE WALL 100'X5'.			14	300	DIRT, APPROX. 100' NORTH END IS PAVED	\$42,300.00					1475	\$88,500	\$130,800
7942	B	LAKEVIEW AVE	XERXES AVE S	EDLIN PL	LAKEVIEW AVE	7TH WARD, #4	COMPLEX	EXISTING STORM SEWER INLETS AT MID AND NORTH END.	PART A	EDLIN PL	14	205	POOR PATCHY AC PAVEMENT	\$28,905.00	\$1,000			\$1,000		\$29,905	
8240	B	5TH ST NE	SPAIN PL NE	35TH AVE NE	36TH AVE NE	1ST WARD, #5	COMPLEX	N - S SEGMENT CONCRETE, E - W SEGMENT GRAVEL, VACANT PROPERTY ON NORTH SIDE	PART A	SPAIN PL NE	14	355	DIRT	\$50,055.00						\$50,055	
8291	B	11TH AVE SE	12TH AVE SE	8TH ST SE	RR TRACKS	3RD WARD, #7	COMPLEX	SHOULD VACATE N-S LEG	PART A	DEAD END N OF PART A		122	POOR AC PAVEMENT	\$17,202.00						\$17,202	
8856	B	29TH AVE S	30TH AVE S	31ST ST E	LAKE ST E	9TH WARD, #4	T-ALLEY	POSSIBLY VACATE AND CAN ACCESS OFF OF LAKE ST. AND 31ST ST. ACCESS TO LAKE CAN BE DIFFICULT AT TIMES. CHECK WITH CITY ON THIS POSSIBLE VACATE.	PART A	30TH AVE S		171	DIRT	\$24,111.00						\$24,111	
8935	A	32ND AVE S	33RD AVE S	29TH ST E	28TH ST E	9TH WARD, #3	L-ALLEY	E - W SEGMENT CONCRETE, N - S SEGMENT GRAVEL, EXISTING STORM SEWER INLET MIDWAY, 120' OF SOUTH END IS PAVED CHURCH PARKING LOT.	33RD AVE S	PART B	12	100	DIRT	\$14,100.00	\$500			\$500		\$14,600	
9304	A	IRVING AVE N	GIRARD AVE N	22ND AVE N	23RD AVE N	5TH WARD, #2	STRAIGHT	SOUTH END IS PARKING LOT FOR PRAIRIE SEEDS ACADEMY SCHOOL WITH LARGE WALL DOWN CENTER OF R/W, LARGE BLOCK WALL FOR SCHOOL IN GOOD CONDITION, UTILITY POLES AND WALL ARE ENCROACHING.			14	340	POOR PATCHY AC PAVEMENT	\$47,940.00						\$47,940	
9305	A	GRAND ST NE	CALIFORNIA ST NE	18TH AVE NE	22ND AVE NE	3RD WARD, #2	DEAD END	PAVING ONLY NECESSARY TO SERVE 2 PROPERTIES ON SOUTH END, CONSTRUCTION YARD AND LUMBER YARD HAVE ACCESS OFF OF GRAND & CALIFORNIA. COULD JUST PAVE FIRST 60'-70' FROM STREET.			12	300	GRAVEL	\$42,300.00						\$42,300	
9308	A	BURNHAM BLVD	BURNHAM BLVD	BURNHAM BLVD	WASHBURN AVE S	7TH WARD, #6	CURVED	BRUSH ENCROACHMENT, NARROW ALLEY			25	400	DIRT & POOR AC PAVEMENT	\$56,400.00						\$56,400	
9309	A	MAIN ST NE	2ND ST NE	16TH AVE NE	17TH AVE NE	3RD WARD, #3	DEAD END	STORM SEWER IS NEEDED TO PROVIDE DRAINAGE			15	198	POOR AC PAVEMENT	\$27,918.00	\$8,000	300		\$26,000		\$53,918	
9310	A	MAIN ST NE	2ND ST NE	LOWRY AVE NE	26TH AVE NE	1ST WARD, #8	L-ALLEY	ALL COMMERCIAL PROPERTY, PARKING LOTS ARE PART OF ALLEY, SOME ENCROACHMENTS INCLUDE BRUSH			14,30	480	E-W LEG IS GOOD AC PAVEMENT, N-S LEG IS VERY POOR AC PAVEMENT	\$67,680.00						\$67,680	
9321	A	IRVING AVE S	HUMBOLDT AVE S	26TH ST W	25TH ST W	10TH WARD, #1	DEAD END	BLOCK WALL IS NON ISSUE, EXISTING STORM SEWER INLET AT SOUTH END, DRIVEWAY AT SOUTH END MAY BE ENCROACHING.			14	325	DIRT & GRAVEL	\$45,825.00	\$500			\$500		\$46,325	
9324	A	JAMES AVE N	IRVING AVE N	2ND AVE N	CEDAR LAKE RD N	5TH WARD, #3	STRAIGHT	BRUSH IS ENCROACHING ON WEST SIDE NORTH END.			12	195	GRAVEL	\$27,495.00						\$27,495	
9326	A	JAMES AVE N	IRVING AVE N	44TH AVE N	45TH AVE N	4TH WARD, #6	DEAD END	POSSIBLY VACATE DEAD END OFF OF JAMES (SOUTH LEG). NEED TO DISCUSS WITH CITY AND OWNERS.			14	280	VERY POOR AC PAVEMENT	\$39,480.00						\$39,480	
9327	A	JAMES AVE N	IRVING AVE N	44TH AVE N	45TH AVE N	4TH WARD, #6	L-ALLEY	WAS NUMBER 4121, (NORTH LEG)	IRVING AVE N	45TH AVE N	14	255	GRAVEL	\$35,955.00						\$35,955	
9330	A	DEAD END	JAMES AVE N	41ST AVE N	42ND AVE N	4TH WARD, #10	STRAIGHT	NEED STORM SEWER TO PROVIDE DRAINAGE.			12	595	DIRT AND VERY POOR AC PAVEMENT	\$83,895.00	\$12,000	350		\$33,000		\$116,895	
9341	A	BENJAMIN ST NE	MCKINLEY ST NE	35TH AVE NE	36TH AVE NE	1ST WARD, #2	DEAD END	70'X3' TIMBER WALL ON EAST SIDE IN POOR CONDITION, ALLEY ONLY SERVES 2 PROPERTIES ON WEST SIDE.			14	155	MODERATE TO GOOD AC PAVEMENT	\$21,855.00					210	\$12,600	\$34,455
9344	A	BUCHANAN ST NE	LINCOLN ST NE	BROADWAY ST NE	12TH AVE NE	1ST WARD, #13	L-ALLEY				14	360	DIRT, POOR AC PAVEMENT	\$50,760.00						\$50,760	
9345	A	BUCHANAN ST NE	LINCOLN ST NE	12TH AVE NE	13TH AVE NE	1ST WARD, #13	STRAIGHT				14	235	DIRT, POOR AC PAVEMENT	\$33,135.00						\$33,135	
9357	A	EMERSON AVE N	DUPONT AVE N	43RD AVE N	WEBBER PKWY	4TH WARD, #9	DEAD END	EXISTING STORM SEWER INLET AT NORTH END WILL NEED TO BE ADJUSTED. MAY NEED 80'X2' WALL ON SOUTH END.			15	240	GRAVEL	\$33,840.00	\$500			\$500	160	\$9,600	\$43,940
9358	A	EMERSON AVE N	DUPONT AVE N	SHINGLE CREEK PKWY	46TH AVE N	4TH WARD, #7	DEAD END	SHOULD NOT BE VACATED			14	200	GRAVEL	\$28,200.00						\$28,200	
9360	A	FREMONT AVE N	EMERSON AVE N	43RD AVE N	WEBBER PKWY	4TH WARD, #8	DEAD END	SMALL BLOCK WALLS 30'X2' & 30'X2', NORTH END HAS EXISTING STORM SEWER INLET.			15	330	POOR AC PAVEMENT	\$46,530.00	\$500			\$500	120	\$7,200	\$54,230
9373	A	QUEEN AVE N	PENN AVE N	52ND AVE N	53RD AVE N	4TH WARD, #5	DEAD END	SHOULD VACATE SOUTH HALF			14	450	POOR PATCHY AC PAVEMENT	\$63,450.00						\$63,450	
9376	A	PIERCE ST NE	BUCHANAN ST NE	BROADWAY ST NE	13TH AVE NE	1ST WARD, #12	DEAD END	SOUTH PORTION SERVES 1 COMMERCIAL PROPERTY & 1 HOUSE, SHOULD BE VACATED, SMALL BLOCK WALL EAST SIDE @ HOUSE, WALL COULD BE ELIMINATED. NORTH PORTION WILL NEED SOME STORM SEWER TO PROVIDE DRAINAGE.			12	600	DIRT, POOR AC PAVEMENT	\$84,600.00	\$16,000	180		\$26,800		\$111,400	
9377	A	PIERCE ST NE	BUCHANAN ST NE	13TH AVE NE	14TH AVE NE	1ST WARD, #12	STRAIGHT				14	340	DIRT, POOR AC PAVEMENT	\$47,940.00						\$47,940	
9379	A	FILLMORE ST NE	BUCHANAN ST NE	36TH AVE NE	RR TRACKS	1ST WARD, #3	DEAD END				14	300	MODERATE AC PAVEMENT	\$42,300.00						\$42,300	

ALLEY ID	PART	LIMIT1	LIMIT2	LIMIT3	LIMIT4	WARD	TYPE	COMMENTS	FROM	TO	R/W WIDTH	ALLEY LENGTH (APPROX)	CURRENT CONDITION	CONCRETE PAVEMENT COSTS	STRUCTURE COSTS	PIPE QTY. (LF)	POSSIBLE BASIN OR POND COSTS	TOTAL SEWER COSTS	RETAINING WALL-AREA (SF) & COSTS	TOTAL COST	
9387	A	THOMAS AVE N	SHERIDAN AVE N	52ND AVE N	53RD AVE N	4TH WARD, #3	L-ALLEY	WEST SIDE PROPERTY IS ALL POND			14	600	POOR PATCHY AC PAVEMENT	\$84,600.00						\$84,600	
9388	A	THOMAS AVE S	SHERIDAN AVE S	HAWTHORNE AVE W	CHESTNUT AVE W	7TH WARD, #2	DEAD END	EXISTING STORM SEWER INLET AT NORTH END WILL NEED TO BE ADJUSTED.			14	598	DIRT & GRAVEL	\$84,318.00	\$500			\$500		\$84,818	
9392	A	UPTON AVE N	THOMAS AVE N	51ST AVE N	52ND AVE N	4TH WARD, #2	DEAD END				14	600	VERY POOR AC PAVEMENT	\$84,600.00					\$84,600		
9396	A	VINCENT AVE N	UPTON AVE N	51ST AVE N	52ND AVE N	4TH WARD, #1	STRAIGHT	EAST SIDE PROPERTY IS MOSTLY A LARGE POND			14	605	POOR PATCHY AC PAVEMENT	\$85,305.00					\$85,305		
9398	A	WASHBURN AVE S	VINCENT AVE S	39TH ST W	38TH ST W	13TH WARD, #2	DEAD END	STONE WALLS ON EAST & WEST SIDE ON SOUTH HALF, TIMBER & STONE(30'X4') WALLS ON EAST SIDE ON NORTH HALF, MAY NEED 21'X2' WALL. UTILITY POLE ENCR OACHING ON SOUTH HALF.			12	331	SOUTH HALF IS GRAVEL & NORTH HALF IS POOR AC & GRAVEL	\$46,671.00					162	\$9,720	\$56,391
9399	A	WASHBURN AVE S	VINCENT AVE S	59TH ST W	58TH ST W	13TH WARD, #5	STRAIGHT				14	596	DIRT & POOR AC PAVEMENT	\$84,036.00					\$84,036		
9401	A	VINCENT AVE N	UPTON AVE N	CHESTNUT AVE W	2ND AVE N	7TH WARD, #1	DEAD END	BRUSH IS ENCR OACHING			14	591	DIRT & GRAVEL	\$83,331.00					\$83,331		
9415	A	PILLSBURY AVE	WENTWORTH AVE	57TH ST W	56TH ST W	11TH WARD, #3	DEAD END	NEED STORM SEWER INLET AT NORTH END, ENCR OACHMENTS INCLUDE DRIVEWAYS AND BRUSH.			14	190	POOR PATCHY AC PAVEMENT	\$26,790.00	\$8,000	300		\$26,000		\$52,790	
9434	A	3RD AVE S	CLINTON AVE	42ND ST E	41ST ST E	8TH WARD, #1	DEAD END	POSSIBLE ENCR OACHMENTS INCLUDE FENCES, TREES, & BRUSH.			12	295	DIRT	\$41,595.00					\$41,595		
9448	A	6TH ST N	4TH ST N	30TH AVE N	31ST AVE N	3RD WARD, #1	DEAD END	SPLIT - NORTH AND SOUTH ALLEYS, SOUTH ALLEY HAS POURED CONCRETE WALL ON EAST END, POSSIBLE ENCR OACHMENTS BY BUILDINGS AND UTILITY POLES			12	170	DIRT AND GRAVEL	\$23,970.00					\$23,970		
9481	A	WARWICK ST	CECIL ST	WARWICK ST	SHARON AVE	2ND WARD, #10	STRAIGHT	BRICK AND BLOCK WALLS AT SOUTH END 39'X4' & 111'X6', ALL WALLS ABOUT TO FALL DOWN, SOME ENCR OACHMENT FROM BRUSH AND TREES, VERY NARROW. WALLS MAY NOT BE ISSUE TO PAVE??			14	780	VERY POOR PATCHY AC PAVEMENT	\$109,980.00					822	\$49,320	\$159,300
9483	A	26TH AVE S	27TH AVE S	8TH ST S	7TH ST S	2ND WARD, #7	STRAIGHT	WALL ON EAST END POSSIBLE ENCR OACHMENT, ALSO POSSIBLE ENCR OACHMENT OF FENCES, BUILDINGS, & UTILITY POLES. WALLS ARE 72'X2.5' & 30'X2'			12	331	DIRT, GRAVEL, VERY POOR AC PAVEMENT	\$46,671.00					240	\$14,400	\$61,071
9484	A	26TH AVE S	27TH AVE S	8TH ST S	7TH ST S	2ND WARD, #6	COMPLEX	WALL ON EAST END POSSIBLE ENCR OACHMENT, ALSO POSSIBLE ENCR OACHMENT OF FENCES, BUILDINGS, & UTILITY POLES. WALLS ARE 36'X3' & 40'X3'			12	385		\$54,285.00					228	\$13,680	\$67,965
9485	A	26TH AVE S	27TH AVE S	7TH ST S	6TH ST S	2ND WARD, #5	T-ALLEY	BOTH LEGS HAVE BLOCK WALLS IN POOR CONDITION LEANING OVER, WALLS ARE 75'X4', 24'X4' & MAYBE 42'X4'. POSSIBLE UTILITY POLE ENCR OACHING.			14	410	DIRT & GRAVEL	\$57,810.00					564	\$33,840	\$91,650
9512	A	UPTON AVE S	THOMAS AVE S	26TH ST W	UPTON AVE S	7TH WARD, #7	T-ALLEY	APPROX. 50' HAS BEEN FINISHED IN CONCRETE OFF OF KENWORTH END.			14	360	DIRT & GRAVEL	\$50,760.00						\$50,760	
9518	A	GARFIELD ST NE	ARTHUR ST NE	HENNEPIN AVE E	WINTER ST	1ST WARD #14	T-ALLEY	STORM SEWER INLET IN N-S LEG WILL NEED TO BE ADJUSTED & REPAIRED			14,20	710	VERY POOR AC PAVEMENT, W/PATCHY AREAS	\$100,110.00	\$500			\$500		\$100,610	
9529	A	JOHNSON ST NE	CLEVELAND ST NE	36TH AVE NE	RR TRACKS	1ST WARD, #1	COMPLEX	EAST END VERY NARROW, NORTH SIDE IS VACANT R.R. R/W, MAY HAVE SOME DRAINAGE ISSUES ON EAST END, SOME ENCR OACHMENTS OF BRUSH AND SMALL TREES. CREATING A NEW PROFILE WILL PROVIDE DRAINAGE OUT THE END OF THE ALLEY. CAN USE VACANT LAND ON NORTH SIDE FOR POSSIBLE RAIN GARDENS/BASINS.			14	850	AVERAGE AC PAVEMENT, POOR PATCHY AREAS	\$119,850.00			\$5,000	\$5,000		\$124,850	
9540	A	CALIFORNIA ST NE	MAIN ST NE	LOWRY AVE NE	26TH AVE NE	1ST WARD, #7	STRAIGHT	SOUTH HALF, EAST SIDE VACANT R.R. R/W, WEST SIDE RESIDENTIAL, WILL NEED STORM SEWER TO PROVIDE DRAINAGE.			12	590	POOR AC PAVEMENT	\$83,190.00	\$12,000	320		\$31,200		\$114,390	
9541	A	CALIFORNIA ST NE	MAIN ST NE	26TH AVE NE	27TH AVE NE	1ST WARD, #7	STRAIGHT	NORTH HALF, EAST SIDE VACANT R.R. R/W, WEST SIDE RESIDENTIAL.			12	605	POOR AC PAVEMENT	\$85,305.00						\$85,305	
9545	A	MONROE ST NE	QUINCY ST NE	27TH AVE NE	CEMETARY	1ST WARD, #9	COMPLEX	75'X3' TIMBER WALL ON EAST SIDE SOUTH END IN POOR CONDITION, POSSIBLE TO VACATE SINCE ALLEY ONLY SERVES THE TWO HOUSES THAT IT GOES BETWEEN. WILL NEED SHARED AGREEMENT BETWEEN THE TWO PROPERTY OWNERS ON EACH SIDE.	27TH AVE NE	DEAD END	16	132	POOR AC PAVEMENT	\$18,612.00					225	\$13,500	\$32,112
9555	B	MAIN ST NE	2ND ST NE	7TH AVE NE	8TH AVE NE	3RD WARD, #5	DEAD END	EXISTING STORM SEWER INLET AT SOUTH END WILL NEED TO BE ADJUSTED, POSSIBLE UTILITY POLE ENCR OACHMENT ON EAST SIDE.	PART A	DEAD END N OF PART A	16.5	218	POOR AC PAVEMENT	\$30,738.00	\$500			\$500		\$31,238	
9560	A	MARSHALL ST NE	GRAND ST NE	14TH AVE NE	16TH AVE NE	3RD WARD, #4	L-ALLEY	18'X3.5' TIMBER WALL AT SOUTH END IN AVG. CONDITION MAY BE ON PRIVATE PROPERTY - NON ISSUE, UTILITY POLES MAY BE ENCR OACHING.			12	260	N-S LEG IS VERY POOR AC PAVEMENT, E-W LEG IS GRAVEL	\$36,660.00					63	\$3,780	\$40,440
9578	A	SHERIDAN AVE N	FERRANT PL	WALTON PL	24TH AVE N	5TH WARD, #1	DEAD END	NEED STORM SEWER TO PROVIDE DRAINAGE. NEAREST STORM SEWER IS AT THE SOUTH END OF WALTON PL.			14	155	DIRT & GRAVEL	\$21,855.00	\$8,000	360		\$29,600		\$51,455	
9590	A	RR TRACKS	SHERIDAN AVE S	FRANKLIN AVE W	KENWOOD PKWY	7TH WARD, #5	COMPLEX	SOME TIMBER AND BRICK WALLS IN FAIR CONDITION 60'X3' & 45'X3'. POSSIBLE ENCR OACHMENTS INCLUDE TREES AND BRUSH.			14	2300	DIRT & GRAVEL	\$324,300.00					315	\$18,900	\$343,200
<b>TOTAL CONSTRUCTION COST IN 2008 DOLLARS</b>														<b>\$4,136,799</b>			<b>\$272,100</b>	<b>\$348,660</b>	<b>\$4,757,559</b>		

**NOTES:**

- 1) CONC. PAVEMENT COSTS BASED ON \$141.00/LF PER REPORT PG 13. \$141.00
- 2) STORM SEWER COSTS BASED ON REPORT PAGES 9-10. \$500 FOR STRUCTURE ADJUSTMENT/RECONSTRUCT FOR NEEDED STORM SEWER COSTS ARE BASED ON \$4,000 FOR NEW STORM SEWER STRUCTURE AND \$60/LF OF PIPE. QTY IS THE AMOUNT NECESSARY TO REACH AN EXISTING STORM SEWER SYSTEM IN THE ADJACENT STREET.
- 3) RETAINING WALL (MODULAR BLOCK) COSTS BASED ON REPORT PAGES 7-8. ROUGHLY \$60/SF \$60.00
- 4) POROUS CONCRETE COSTS BASED ON \$222/LF, ADDITIONAL \$81/LF.
- 5) DIFFICULT ALLEY CHARGE IS BASED ON AN ADDITIONAL 25% OF PAVING COSTS
- 6) APPROXIMATE ALLEY LENGTHS PROVIDED BY CITY OF MPLS

 = Possible Alley Vacation  
 = Alley Vacation